Staff Papers Series

Staff Paper P81-11 May 1981

AN ECONOMIC EVALUATION OF LOW INVESTMENT
SWINE PRODUCTION SYSTEMS

Richard N. Weldon, Vernon R. Eidman, and Larry D. Jacobson

Department of Agricultural and Applied Economics

University of Minnesota
Institute of Agriculture, Forestry and Home Economics
St. Paul, Minnesota 55108

An Economic Evaluation of Low Investment

Swine Production Systems

by

Richard N. Weldon

Vernon R. Eidman

and

Larry D. Jacobson*

Staff Papers are published without formal review within the Department of Agricultural and Applied Economics.

Acknowledgement: Partial funding for this research was provided through a grant from Control Data Corporation, Minneapolis, Minnesota. The work was completed under Minnesota Agricultural Experiment Station Project Mn14-025: "An Economic Analysis of Swine Production Systems in Minnesota."

* The authors are Research Specialist and Professor, Department of Agricultural and Applied Economics, and Extension Agricultural Engineer, Department of Agricultural Engineering, all located at the University of Minnesota, St. Paul, Minnesota.

An Economic Evaluation of Low Investment
Swine Production Systems

An Economic Evaluation of Low Investment Swine Production Systems

Introduction

Hogs are an important livestock enterprise in Minnesota. They are produced by a large number of farmers and they represent a major source of farm income in the state. Hogs were produced on 33,000 of Minnesota's 104,000 farms during 1979. Cash receipts from the sale of hogs in Minnesota totaled $651 million in 1979, 12 percent of the cash receipts from farm marketings. Dairy products (18 percent), soybeans (7 percent) and cattle and calves (7 percent) are the only products accounting for a larger proportion of agricultural sales in 1978. Nationwide, Minnesota ranked fourth behind Iowa, Illinois & Missouri, in hogs marketed that year. [19]

Swine continues to be an important livestock enterprise in Minnesota for a variety of reasons. The opportunity to productively utilize available facilities and labor not required for crop production are important reasons for producing hogs on many Minnesota farms. Annual reports of the Southwestern Minnesota Farm Management Association [2] indicate the average returns above feed costs for complete farrow-to-finish operations exceeded $10 per hundred pounds in all but one of the eight years (Table 1). These data also indicate that returns were high enough to cover feed and direct costs in each of these seven years. Easy access to markets for feeder pigs and slaughter hogs also encourage more people to produce hogs in Minnesota. Looking ahead, low cost corn for feeding (relative to the rest of the country), an important factor in the profitability of swine production, and the other factors mentioned, can be expected to encourage further expansion of hog production in Minnesota.

Swine are produced with a wide variety of production systems in Minnesota. These systems can be divided into feeder pig production, finishing of feeder pigs, and farrow-to-finish operations. The facilities used in the production of each group range from portable buildings and equipment on pasture to environmentally controlled confinement facilities.

Table 1. Average Returns of Southwestern Minnesota Farm Management Association Cooperators for Complete Farrow-to-Finish Swine Operations.

	Average Return Above Feed Cost Per Cwt. Hog Produced	Average Return Above Feed and Direct Costs Per Cwt. Hog Produced
1980	$13.12	$9.15
1979	$11.38	$8.80
1978	27.75	25.20
1977	17.72	15.86
1976	13.38	12.06
1975	24.16	22.99
1974	7.76	6.94
1973	21.34	20.58

Potential producers as well as existing producers that are evaluating changes in their swine production system can use comparative data across systems to help develop their plans. Data on the labor and capital requirements, the relative profitability and the cash flows of alternative production systems can be used to analyze adjustments in production systems. Such planning data are available for high investment confinement systems for farrow-to-finish operations, feeder pig production and feeder pig finishing in Minnesota in Agricultural Experiment Station Bulletins 533, 534 and 535, respectively [7, 9, 10]. This publication summarizes an evaluation of smaller and lower investment swine production systems. The systems analyzed range from pasture operations with production during the warmer months to rather intense year-round use of remodeled buildings. In each case the system emphasizes use of facilities that can be constructed and remodeled by the farm operator.

The report includes one section for each type of hog production: feeder pig production, farrow-to-finish operations and hog finishing.

Feeder Pig Production includes a breeding herd, the farrowing of pigs and the marketing of pigs at approximately eight weeks of age and weighing approximately 40 pounds (18.2 kg)

Farrow-to-Finish Operations include a breeding herd, the farrowing of pigs, feeding the pigs to approximately six months of age and selling slaughter hogs weighing 220-230 pounds (100-104 kg).

Swine Finishing Operations purchase approximately eight-week old feeder pigs weighing approximately 40 pounds (18.2 kg), and selling slaughter hogs weighing 220-230 pounds (100-104 kg).

Method of Analysis

The discussion for each type of production is divided into several subsections. The first subsection describes the production systems analyzed, and presents a production calendar which outlines the timing of production activities and the animal flow through the facilities. This provides the basis for the analysis.

The estimated amount of labor required for construction and remodeling of facilities as well as the total investment costs for buildings and equipment are based on the components of each system and the necessary materials. Average upper midwest material prices for mid-1980 were used in estimating investment costs. Reasonable work rates for individuals familiar with routine construction and maintenance of small farm facilities were assumed in making the hourly estimates. Actual investment costs may differ substantially among producers because of the variation in material costs and the amount of hired labor used in building the facilities. The hours of labor required will vary based on the experience and skill of the individual in construction work.

Enterprise budgets (projected average annual costs and returns) are calculated for each system to summarize the estimated gross receipts, total operating inputs and costs, total ownership costs (depreciation, interest, real estate taxes and insurance on the investment in facilities) and net returns to the operator's labor and management. Enterprise budgets provide an estimate of the profitability of an enterprise based on projected costs and returns for the "average" year.

It is also useful to project cash receipts and expense for the start-up period when large capital outlays exceed cash income from the enterprise. The projected monthly cash flow estimates the cash receipts and the cash expenditures, both operating and investment capital, on a month-by-month basis. The projected cash flow for the first and second years indicates how much capital the operator will have to obtain from other sources to start the enterprise and the expected repayment capacity. Completing the cash flow projections for succeeding years provides information on the payback period and the amount of time needed to repay the initial investment.

The labor requirements for establishing and operating each system are estimated [16]. The number of hours required both to construct the necessary structures and the annual requirement to operate the various systems are listed. No dollar cost is placed on the labor since this is determined by the opportunity cost for an individual's time.

Finally, estimates of energy requirements and environmental characteristics are estimated for each production system. The estimated energy required for ventilation, heating and materials handling are made. The relative effect on air and water quality for each system are estimated and compared.

Basic Unit of Analysis

A 16-sow farrowing unit is the common denominator of the systems analyzed. The size of unit is varied by increasing the number of farrowings per year. The systems analyzed range from one group of 16 sows farrowing on pasture once per year through six groups of sows with one group farrowing every four weeks (referred to as continuous farrowing) for 13 litters per year. These increasing sow and litter numbers were then matched with increasing levels of capital investment. The matrix in Figure 1 depicts the eleven possible systems to examine. This study will present the engineering specifications for all systems. However, the economic analyses in this study are limited to systems producing one to six litters per year. The Greene and Eidman studies [7,9,10] on confinement systems provide the economic analysis of systems similar to I and K.

Prices

Investment costs for construction and remodeling are based on typical purchase prices for materials and supplies at local lumber yards. Design of the facilities is based on plans available from the Midwest Plan Service [17,21,22]. An additional 20 percent was added to the initial cost of materials and supplies to allow for miscellaneous items. Certain portions of these investment costs are eligible for investment tax credit. Such items as the pasture fences, paved outside aprons, feeders and waterers would qualify for the 10% investment credit. However, since part of the investment cost will not qualify and because the tax situation will differ widely for individuals considering these systems, no investment credit was deducted. Those individuals that can utilize investment credit

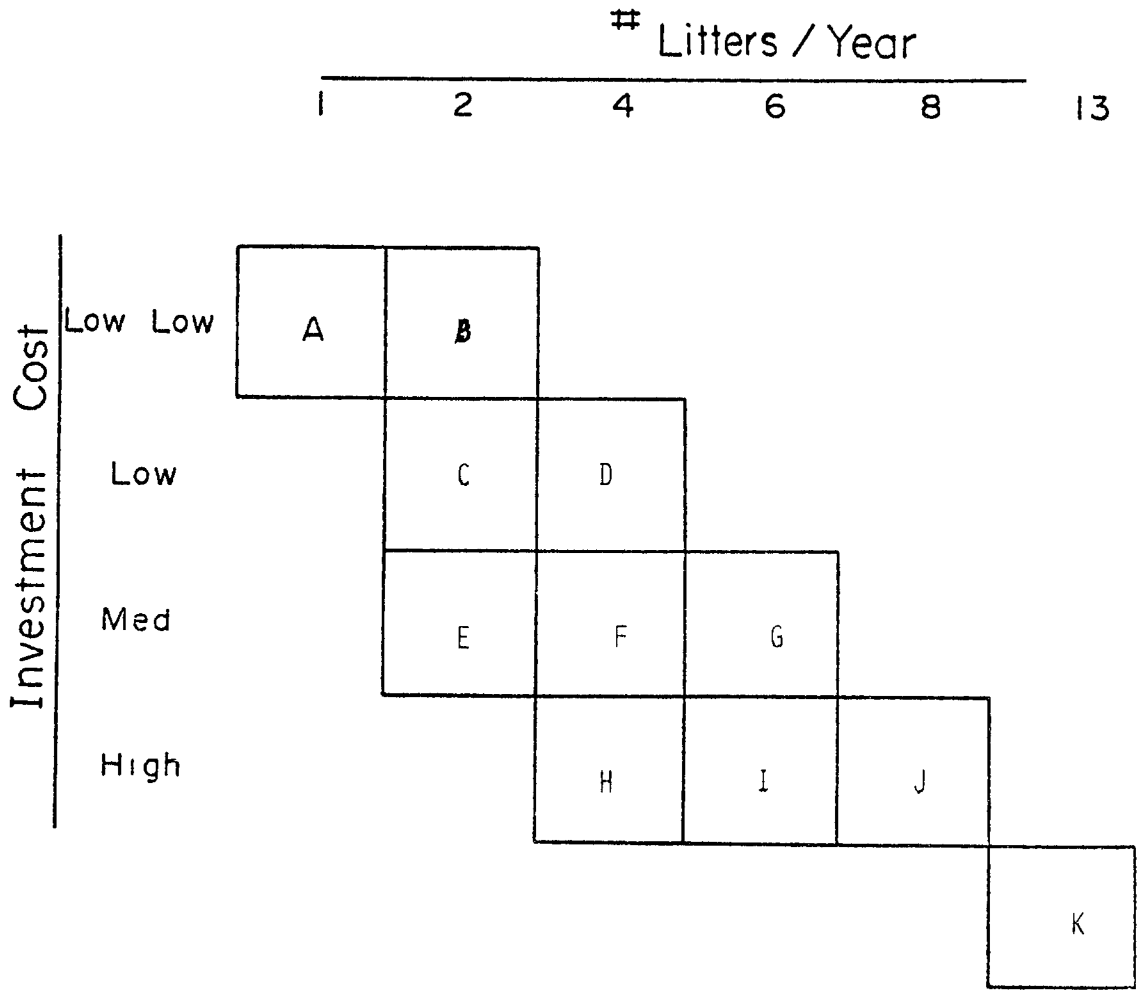


Figure 1 Matrix of Systems

may want to include the appropriate amount of investment credit in the cash flow at the time the credit would be received. Additional information is provided in the Internal Revenue Service, Farmers Tax Guide [8].

Prices for major feed inputs and livestock sales are 5-year planning prices based on discussions with Extension Agricultural Economists, at the University of Minnesota, and supported by Farm Planning Prices, October 1980 [20]. The major prices used were:

Corn - $3.00 per bushel

Soybean Meal - $14.50 per cwt.

Feeder Pigs - $50.00 per head

Market Hogs - $52.00 per cwt.

Other operating costs were based on the average cost from the 1978 and 1979 annual reports of the Minnesota Farm Management Association [2] and other current research.

Rations

Feed costs are a major cost component of raising hogs, making the assumptions in this area a very important part of the analysis. The seven basic rations used in this study to estimate feed requirements and feed costs were recommended by University of Minnesota animal scientists [12, 13, 14, 15]. They are presented in Table 2.

Table 3 summarizes the feeding rates used in the analysis. The pounds of ration fed per head per day varied by season of the year and whether the animal was in pasture or drylot, as well as by the size of animal and stage in the reproduction cycle.

Other rations and feeding rates may be more economical and efficient for different prices, availability of feed ingredients and general management practices. However, these rations and feeding rates meet the nutritional requirements for the size of hogs included and can be expected to provide standard growth rates for swine in Minnesota.

Table 2: RATIONS

Ingredient	Growing	Finishing	Gestation and Boars	Farrowing/ Lactation	Creep	Starter
	PERCENT					
Corn	80.5	86.6	80.1	69.0	44.7	71.5
Soybean Meal (48.5%)	17.0	10.7	16.2	17.5	22.0	25.0
Wheat Bran	-	-	-	10.0	-	-
Sugar	-	-	-	-	10.0	-
Rolled Oats	-	-	-	-	20.0	-
Vitamin-Mineral Supplement	2.5	2.7	3.7	3.5	3.3	3.5
Composition						
% Protein	16.0	13.0	15.0	16.0	18.0	18.0
% Calcium	.65	.5	.9	.8	.8	.8
% Phos.	.50	.5	.6	.6	.6	.6

Table 3: Daily Feeding Rates

	Pounds Per Day Summer	Pounds Per Day Winter
Market hogs and replacement gilts to prebreed		
Grower ration - 40 to 110 lb.	4.3	5.3
Finishing ration - 110 to 220 lb.	6.5	7.5
Sows and Gilts		
Pasture Prebreed and Gestation Ration	3.3	5.5
Drylot Prebreed and Gestation Ration	4.5	5.5
Flush Gilts	6.5	7.5
Farrowing Pasture	4.0	-
Farrowing Drylot	5.0	5.0
Lactation Sows (summer & winter)	3.0 plus 1 lb. per pig nursing per day	
Pigs		
Creep - 1 week to 15 lb.	.1	.1
Starter - 15 lbs. to 40 lbs.	1.8	1.8
Cull Sows		
Finishing Ration	6.5	7.5
Boars	6.0	7.0

Animal Schedules

With the exception of the one litter pasture system and the start-up years, the systems analyzed assume each sow or gilt is scheduled to farrow two times per year. Figure 2 shows the number of days required for each stage the sow goes through from one breeding period to the next. Purchased gilts are assumed to be bought 21 days prior to flushing and the flush period requires 14 days. This means new gilts are on the farm five weeks prior to breeding. The flush period for gilts is included for all systems except those utilizing pasture. The 114 days for breeding and gestation allow animals bred on the first day to farrow 114 days later. Those animals bred two weeks into the breeding/gestation phase will farrow during the middle of the farrowing phase. The 28 days for farrowing and 14 for lactation allow the sow that farrows during the middle of the farrowing phase (the "average" sow) to lactate for four weeks. A minimum of 27 days is allowed to put the sow at the beginning of the breeding gestation phase. During the final 14 days of this 27 day period is the flush period for the replacement gilts. This breeding, gestation, farrowing, lactation and prebred schedule is repeated twice each year to yield two farrowings per female per year. The length of the pre-breeding and lactation phases of the schedule is adjusted for the pasture system in an effort to schedule the farrowings in the mildest months.

Boars are purchased thirty days prior to the beginning of breeding the first group of gilts. All systems assume a group of 3 boars - allowing one boar per ten gilts or sows plus one extra. Those boars are sold one week after they breed the last group of sows and gilts a second time. This prevents the possibility of inbreeding.

The schedule for the pigs raised can be described in relationship to the rations fed during the various stages of growth as shown in Table 4. The analysis assumes that a pig will reach market weight at (1) 65 days for feeder pigs, or (2) 180 days for 220 pound market hogs.

Figure 2. The Schedules for Gilts and Sows in the Breeding Herd for 365 Days.

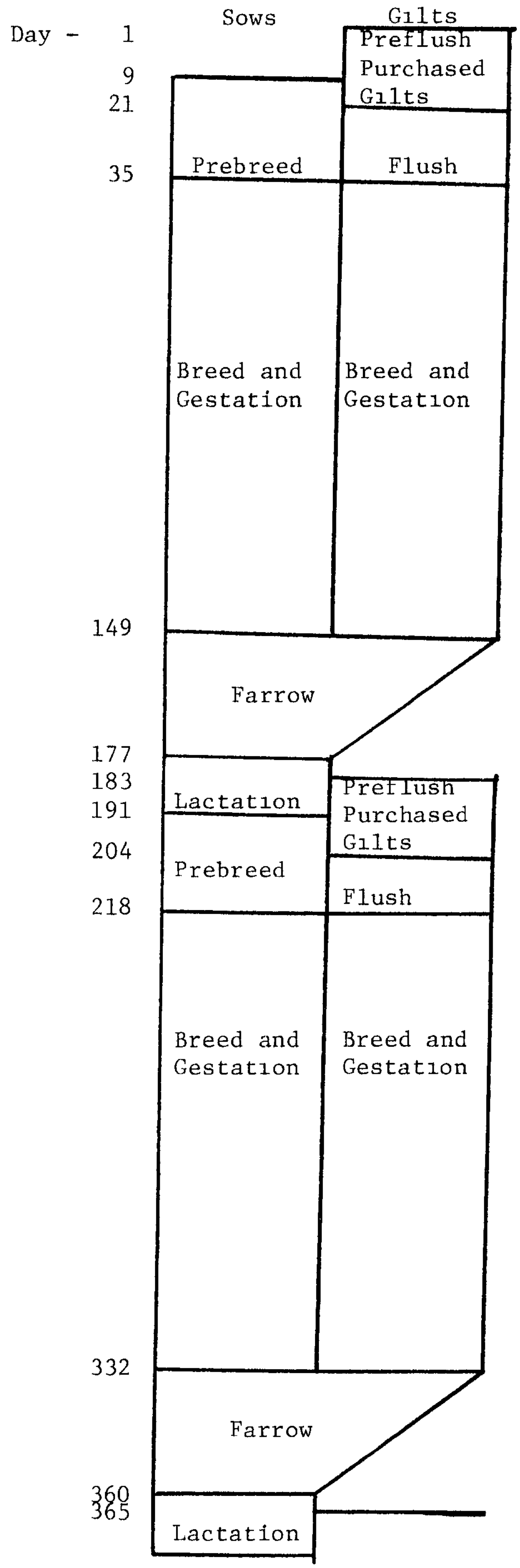


Table 4: Days on Feed for Pigs

Ration Fed	Weight of Pig		No. Days
	Begin	End	
Creep	-	15	28
Starter	15	40	37
Grower	40	110	50
Finishing	110	220	65
			180

Market hogs are assumed to average 1.4 pounds of gain per day while on grower ration from 40 to 110 pounds and 1.7 pounds gain per day during the finishing period.

Space Requirements

The space needs per hog and the number of hogs determine the size of the facilities required. The space requirements recommended by the Midwest Plan Service [21,22] were used in this study. They are summarized in Table 5.

Table 5. Space Requirements

Square Feet of Floor Space Per Hog

	Open Front Housing	Confinement Housing
Sows and Boars:	15 covered, 10 outdoors	15-20
Sow and Litter:		35
Pigs to 60 lbs.:		3
60 to 125 lbs.:	4 covered, 6 outdoors	6
125 and up:	5 covered, 7 outdoors	8

Pasture Space

10 gestating sows/acre
7 sows with litters/acre
50 to 100 growing-finishing pigs/acre depending on fertility

continued on page 13

Shade Space

15 to 20 sq. ft./sow
20 to 30 sq. ft./sow and litter
4 sq. ft./pig to 100 lbs.
6 sq. ft./pig over 100 lbs.

Feeder and Waterer Space

Self-feeders: one space per 4-5 pigs
Supplement feeders: one space/15 pigs
Sow feeders: 1'/sow self-fed, 2'/sow all fed at once
Waterers: one space/20 to 25 pigs.

FEEDER PIG PRODUCTION

Both the management skills of the operator and the environment provided are normally considered very important in farrowing and raising pigs to 40 pounds. The ability of the manager-operator to obtain and maintain high conception rates, adequate litter size and disease free hogs and pigs is crucial to the viability of the business. As the management level changes from farm to farm, so do such items as litter size that in turn changes the profitability of the swine enterprise. The environment in the farrowing and nursery facilities also play an important role in death loss and rates of gain.

In general the cleaner and more optimally controlled the environment, the lower the death loss and the higher the rate of gain. Thus a manager with given management skills would be expected to produce more pigs per litter in some facilities than others. This research is based on the same level of management skills across the systems analyzed. The feeder pig systems analyzed can be described in terms of the housing need and the number of litters farrowed per year. Systems A and B utilize portable buildings on pasture or dry lot. Systems C and D are designed around two ways to remodel and use an existing utility building. Systems E, F and G consider three alternative ways to remodel and use an old dairy stanchion barn. Finally, System H assumes new low cost buildings are constructed. More specifically, the feeder pig systems examined are:

System A - A pasture operation with the gilts farrowing in portable A-frame buildings once per year. Portable gestation facilities provide protection from the weather for the breeding herd.

System B - A pasture operation with 16 sows farrowing twice per year in portable A-Frame buildings. Both the nursery and gestation facilities are portable buildings.

System C - A remodeled uninsulated building, such as an old utility building or garage is used for 2 farrowings per year and for nursery facilities. An open front remodeled shed is used as the gestation facility.

System D - The remodeled farrowing building used in System C has insulation and mechanical ventilation added to allow farrowing over more of the year. Four litters are produced per year. The breeding herd is housed in a new open front shed.

System E - A remodeled dairy barn with neither insulation nor mechanical ventilation is used to farrow two litters per year and as a nursery. A new open front shed is used for gestation.

System F - The remodeled dairy barn used in System E has insulation and mechanical ventilation added to allow four farrowings per year. The barn also includes the nursery facilities. The breeding herd is housed in a new open front shed.

System G - The major building in this system is the remodeled dairy barn of System E with insulation, mechanical ventilation and concrete manure storage added. The barn is used to farrow 6 litters per year and to house the nursery unit. Breeding animals are housed in a new modified, open front building.

System H - Uses a new pole building for farrowing and the nursery unit. The breeding herd is housed in another new pole building. Four litters are farrowed per year.

Animal Flow

Minnesota Farm Management reports indicate the average number of pigs weaned per litter by cooperators is approximately 7.5 for farrow-to-finish operations. System G is a "mid point" of all systems ranging from pasture to total confinement. It is assumed a good manager using System G can wean an average of 7.5 pigs per litter. Using this point of reference, extension specialists familiar with alternative swine production systems developed the following weaning rates by systems which are assumed in the analysis.

System A - 7.5 pigs weaned per litter

System B - 7.0 pigs weaned per litter

System C - 7.0 pigs weaned per litter

System D - 7.3 pigs weaned per litter

System E - 7.0 pigs weaned per litter

System F - 7.3 pigs weaned per litter

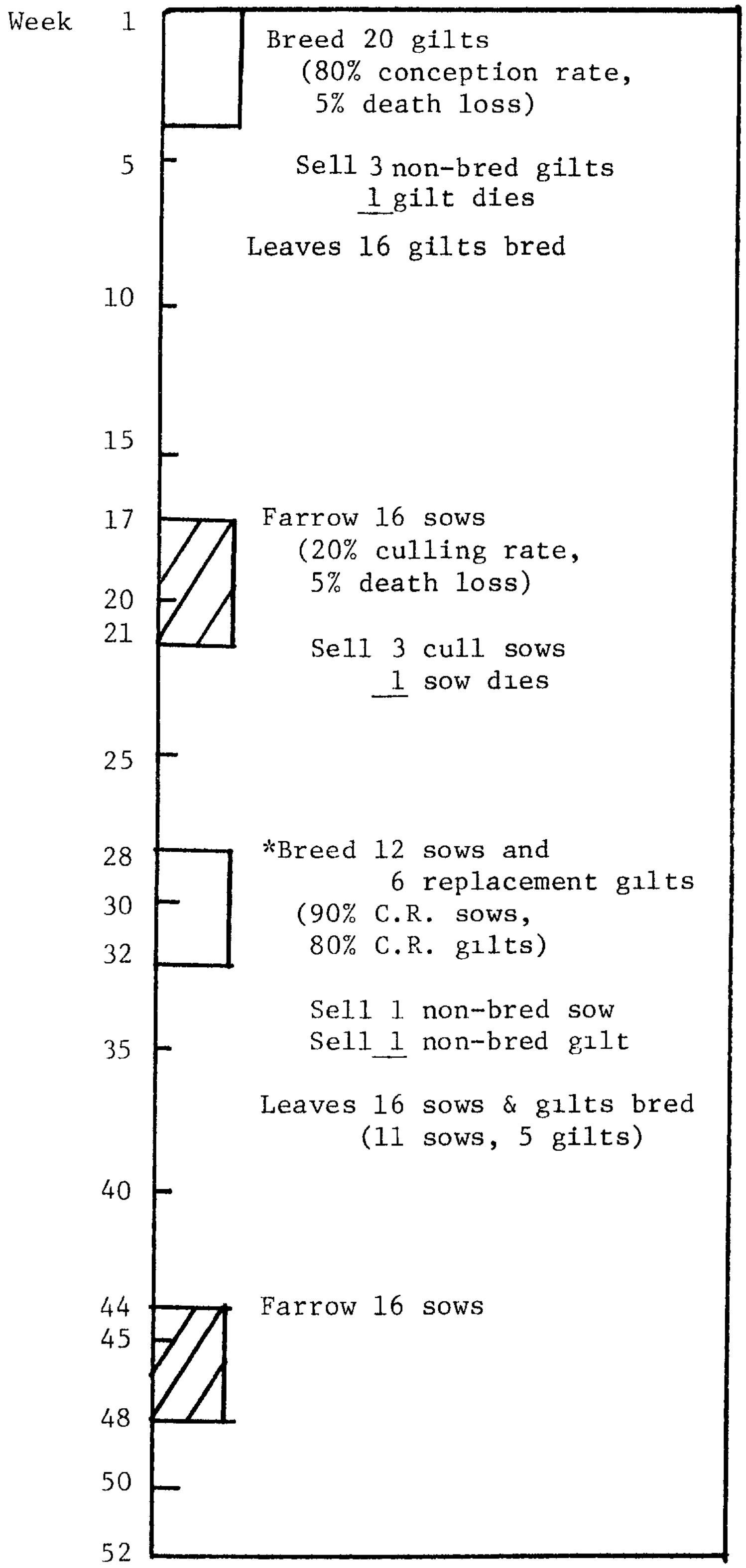
System G - 7.5 pigs weaned per litter

System H - 7.3 pigs weaned per litter

These litter sizes are for the normal herds made up of sows and replacement gilts retained from the herd. The all gilt herds used during the first year of operation were assumed to wean .7 of a pig less.

The impact of conception rates, culling rate and death loss on the animal flow for one group of females in the breeding herd is shown in Figure 3. This 52-week period begins with the initial breeding of 20 gilts. An 80 percent conception rate and 5 percent death loss is assumed resulting in the sale of 3 unbred gilts and death loss of one gilt.

Figure 3. Affect of Conception Rates, Culling Rates, and Death Loss on the Breeding Herd for 52 Weeks Beginning at Start Up with all Gilts.



*If breeding takes place in late July or August then: (a) an all gilt herd of 23 is needed due to lower (70%) conception rate; (b) a sow-gilt herd will need 9 replacement gilts to compensate for 80% and 70% conception rate for sows and gilts, respectively.

The remaining 16 bred gilts go through gestation and farrow. Of these 16 females that have farrowed 3 sows are culled in accordance with a 20 percent culling rate and one sow dies. The 20 percent culling rate and 5 percent death loss used in the analysis results in no sow being held for more than four farrowings or two years. The 12 sows that remain are combined with 6 replacement gilts and bred. With an assumed conception rate of 90 percent for the sows and 80 percent for the gilts all but one sow and one gilt are bred leaving the prescribed 16 female unit comprised of 11 sows and 5 gilts. The only deviation in this schedule occurs when breeding takes place in late July or during August. Because of the heat at that time of the year, the conception rates assumed are reduced to 80 percent for sows and 70 percent for gilts. This is the basis for the required animal numbers shown in Table 6.

System A is the only system producing 1 litter per year, and it is assumed that all sows are culled and only gilts are maintained for breeding the following year. Systems B, C and E have one group of 16 females farrowing twice per year to produce two litters per year. Systems D, F and H have 2 groups of 16 females with each group farrowing twice. System G has three groups of 16 sows and produces 6 litters per year. This requires breeding one group in late July or August which requires higher replacement numbers because of the lower conception rate.

Breeding schedules, litter size and the performance standards result in the animal flows shown in Figures 4, 5, 6 and 7 for the normal years of operation. The estimated annual sales from the animal flows for these alternatives are shown in Table 7.

Table 6: Required Number of Females Annually and Average Herd Size.

			Annual Totals			Average Breeding Herd Size		
Litters Per Year	System	No. of Sows Farrowing	No. of Litters Farrowed Per Sow	No. of Litters Farrowed	No. of Replacement Gilts Saved	Bred Sows	Bred Gilts	Replacement Gilts
1	A	16	1	16	20	-	16	20
2	B,C,E	16	2	32	12	11	5	6
4	D,F,H	32	2	64	24	22	10	12
6	G	48	2	96	39*	33	15	19.5*

*One group of 16 females in the breeding herd is bred in August and will require 3 additional gilts. Thus, during the winter breeding, there are 18 replacement gilts and during the summer there are 21.

Table 7: Number of Animals Sold Annually.

System	Feeder Pigs	Cull Sows	Nonbred Sows	Nonbred Gilts	Boars
A	92	15	-	3	3
B	212	6	2	2	3
C	212	6	2	2	3
D	444	12	4	4	3
E	212	6	2	2	3
F	444	12	4	4	3
G	681	18	7	8	3
H	444	12	4	4	3

Figure 4. Production Calendar for Average Year of Operation for Feeder Pig Systems A and B

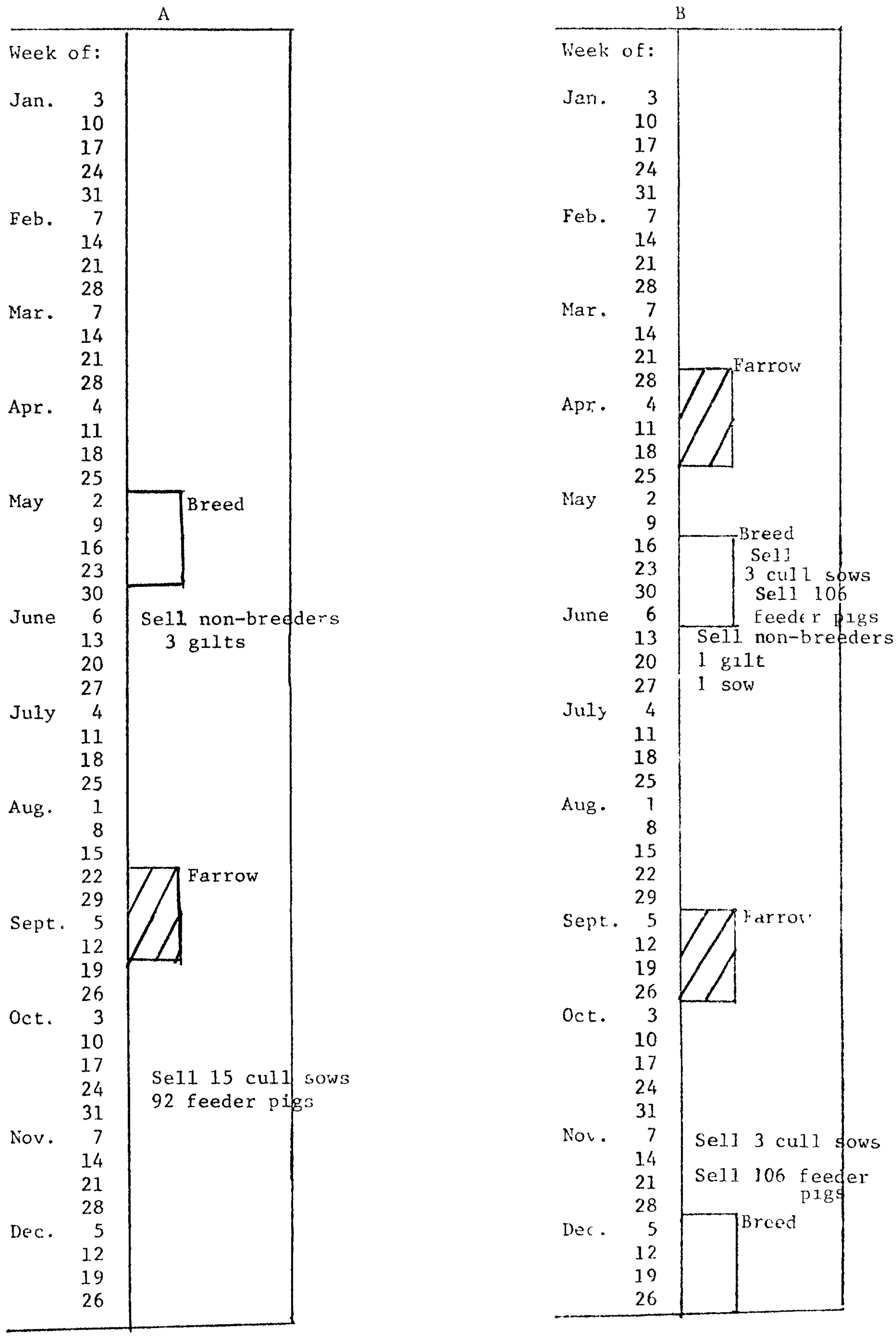


Figure 5. Production Calendar for Average Year of Operation for Feeder Pig Systems C and E.

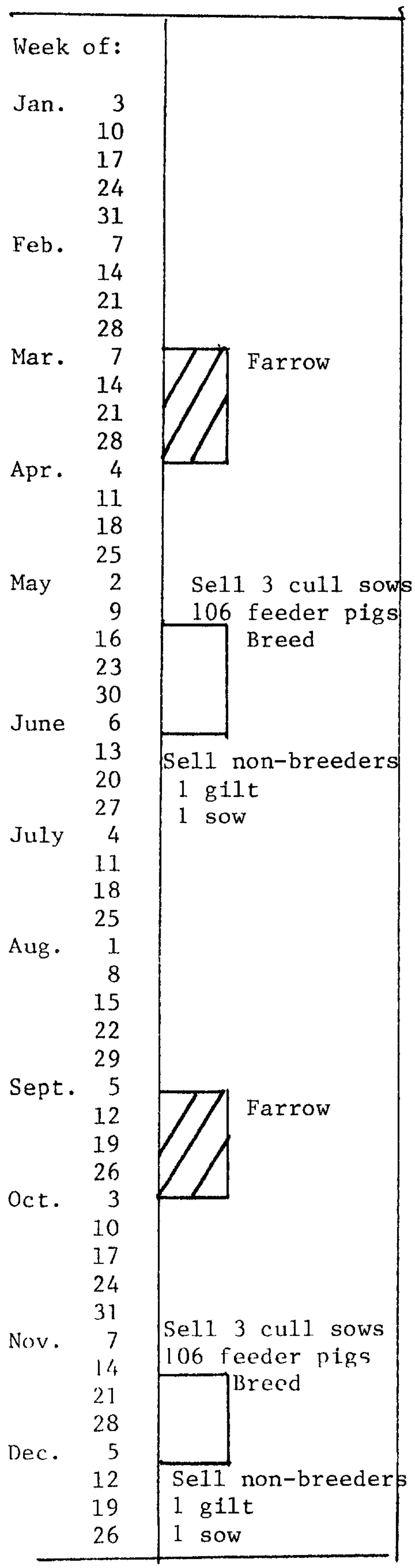


Figure 6: Production Calendar for Average Year of Operation for Feeder Pig Systems D, F and H.

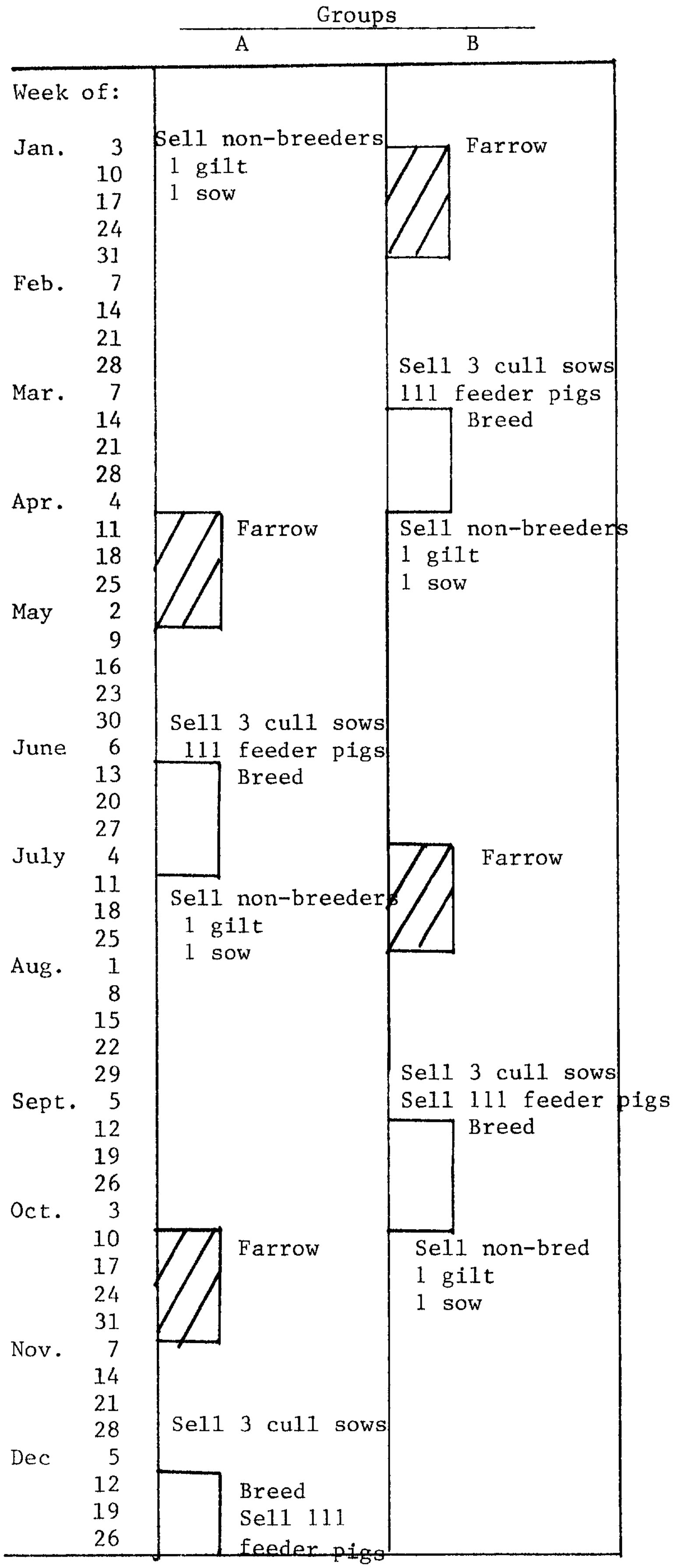
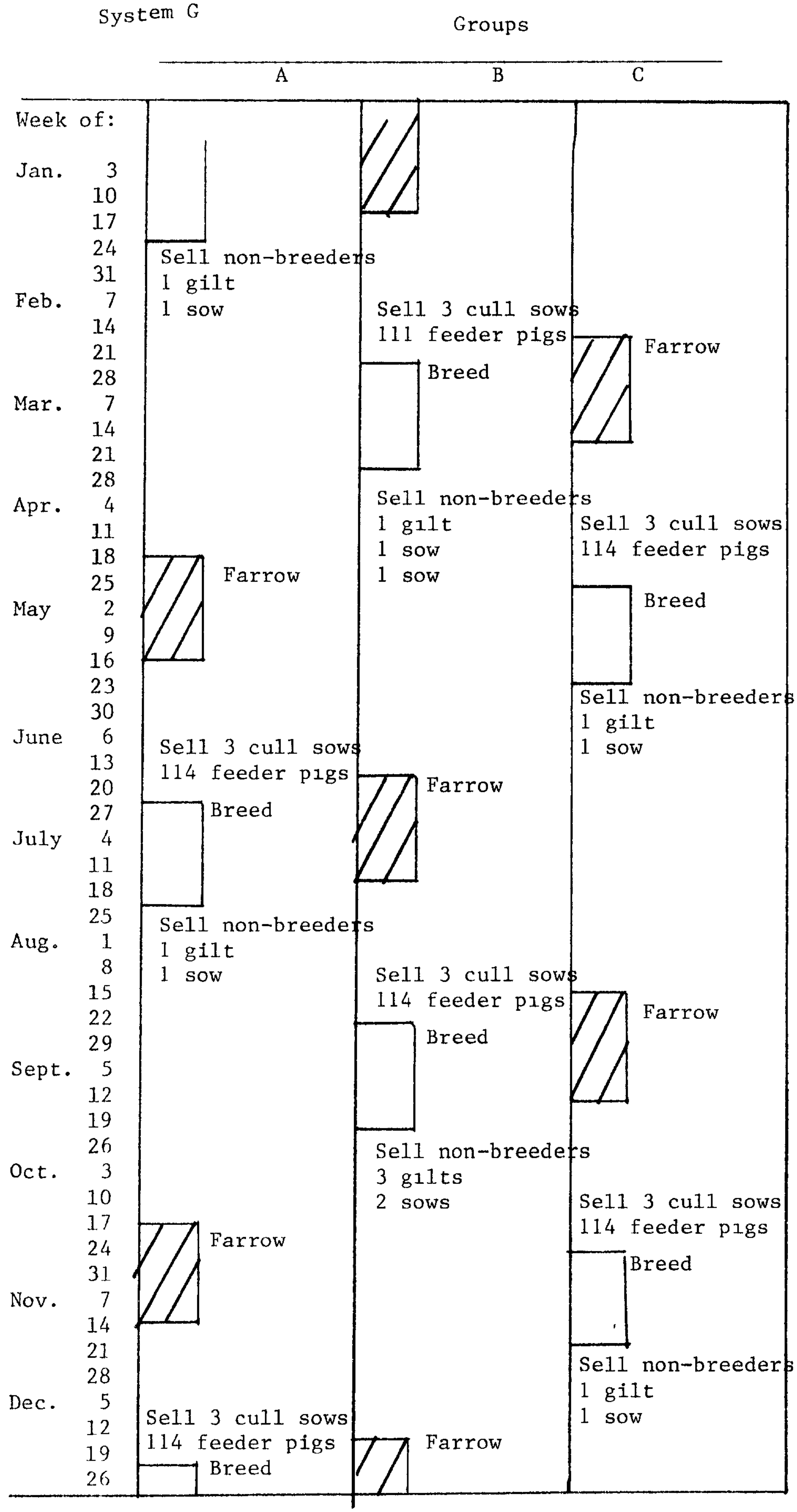


Figure 7: Production Calendar for Average Year of Operation for Feeder Pig System G



Building Systems and Investment Costs

Having determined the animal flow and levels of production, it is possible to establish the facilities required. Several factors were considered in designing the necessary farrowing and gestation facilities for each system.

The two major biological items considered were:

1. The buildings and structures must provide the space standards developed by Midwest Plan Service for raising hogs and feeder pigs.

2. The facilities must be adequate to achieve the assumed performance standards with average or above average management ability.

Several additional factors were considered to meet the purpose of this study.

1. The components have to be low to medium investment relative to the larger confinement hog systems. Buildings that tend to meet this criteria are new low technology sheds and pole barns or remodeled sheds and barns.

2. Systems were designed having a low energy requirement. This was accomplished by incorporating natural ventilation whenever practical, and including insulation in buildings used for winter farrowings.

3. Facilities are kept simple enough that most of the construction and remodeling can be done by the owner operator.

4. Materials and supplies used in these buildings would be readily available in all areas of the state.

Tables 8 through 15 list the facilities included in the systems developed. Listed are all items that must be constructed, remodeled or purchased, with a brief description, the number of units, cost per unit

Table 8. The Facilities Required, The Investment Cost and The Labor Required For Construction for System A - One Litter Per Year.

Farrowing facilities 1 - Pasture System, 16 A-Frame Huts

Item	Size and Description	Units	Cost Per Unit	Total
Farrowing Huts	7' x 7' 11" Wood A-Frame	16	$115	$1,840
Waterers and Feeders	95 gallon stock tank	1	73	73
	2 ft. trough	1	11	11
	Pig cups-pans	8	8	64
Total				$1,988

Gestation facilities 1 - Pasture System, 16 gilts, 3 boars

Item	Size and Description	Units	Cost Per Unit	Total
Sow Shelters	8' x 16' portable	2	763	$1,526
Boar Shelters	6' x 8' portable	1	285	285
Feeders	8 ft. trough	2	55	110
	2 ft. trough	2	14	28
Waterers	2 hole frost proof	1	95	95
Plumbing-Electrical	Water line, hydrant, electrical for water heaters			960
Fencing & Posts	3240'		1/ft.	3,240
Total				$6,244

Equipment and Machinery

Loading and Sorting Chutes	$ 445
Total Equipment Machinery and Facilities Investment	$8,677
Total Hours of labor for construction	166 hours

Table 9. The Facilities Required, The Investment Cost and The Labor Required for Construction for System B - 2 Litters Per Year

Farrowing facilities 1a - Pasture System, 16 A-Frame huts

Item	Size and Description	Units	Cost Per Unit	Total
Farrowing Huts	7' x 7' 11" Wood A-Frame	16	$115	$1,840
Waterers	95 gallon stock tank	1	73	73
	2 ft. trough	1	11	11
	Pig cups-pans	8	8	64
Portable Nursery Shelters	8' x 16' portable	2	785	1,572
Total				$3,560

Gestation Facilities 1 - Pasture System, 16 sows, 6 gilts, 3 boars

Item	Size and Description	Units	Cost Per Unit	Total
Sow Shelters	8' x 16' portable	2	$763	$1,526
Boar Shelters	6' x 8' portable	1	285	285
Feeders	8 ft. trough	2	55	110
	2 ft. trough	2	14	28
Waterers	2-hole frost proof	1	95	95
Plumbing-Electrical	Water line hydrant, electrical for water heaters			960
Fencing & Posts	3240'		1/ft.	3,240
Total				$6,244

Equipment and Machinery

Loading and sorting chutes	$ 445
Total Equipment, Machinery and Facilities Investment	$10,249
Total Hours of Labor for Construction	230 hours

Table 10. The Facilities Required, the Investment Cost and the Labor Required for Construction of System C - 2 Litters Per Year

Item	Size and Description	Units	Cost per Unit	Total
Farrowing Facilities 2 - Remodeled Building				
Farrowing House	Remodel 16' x 28' bldg.	2 @ 488/sq. ft.	$3.45/sq.ft.	$ 3,190
Farrowing Crates	Wooden	16	$100	1,600
Heating	250 Watt heat lamps	6	15	90
Total				$ 4,880
Gestation Facilities 2 - Remodeled Pole Building, 16 Sows, 6 Gilts, 3 Boars				
Building	Remodel 32' x 40' pole bldg.	1280 sq.ft.	$ .35	$ 448
Feeders	8 ft. trough	5	83	415
	2 ft. trough	2	11	22
Waterers	2-hole frost proof	2	95	190
	1-hole frost proof	1	75	75
Concrete, Reinforcing Inside, Lot, Apron		2400 sq.ft.	.58 sq.ft.	1,392
Fencing	Hog Panels	200 ft.	.80	160
	Posts	25	1.75	44
Plumbing-Electric				960
Total				$ 3,706
Equipment and Machinery				
Loading and sorting Chutes				$ 445
Manure Spreader - 100 bushel dry				2,000
Used Skid Loader				3,500
Total				$ 5,945
Total Equipment, Machinery and Facilities Investment				$14,531
Total Hours of Labor for Construction				200 hours

Table 11. The Facilities Required, the Investment Cost and the Labor Required for Construction of System D - 4 Litters Per Year.

Farrowing Facilities 3 - Remodeled Building with insulation and mechanical ventilation.

Item	Size and Description	Units	Cost per Unit	Total
Farrowing House	Remodel and insulate 16' x 28' building	2 @ 448 sq.ft.	$ 5.77/ sq. ft.	$ 5,170
Farrowing Crates	Wooden	16	100	1,600
Heating	40,000 Btu/hr unit	2	260	520
	250 Watt heat lamps	14	15	210
Ventilation	6 fans (160, 1040, 1680 CFM)			1,500
Total				$ 9,000

Gestation Facilities 4 - New Open Front Shed with Lot, 32 Sows, 12 Gilts, 3 Boars.

Item	Size and Description	Units	Cost per Unit	Total
Building	16' x 64' open front	1024 sq.ft.	$ 2.57/ sq.ft.	$ 2,627
Concrete	In building, lot, apron	2816 sq.ft.	.58/sq.ft.	1,663
Fencing	Pen dividers	250 ft.		486
	Outside fence			250
Feeders	16-hole fence-line	3	325	975
	2-hole feeder	2	100	200
Feed system	3 ton bin and auger			1,625
Waterers	2-hole frost proof	4	100	400
Plumbing & Electric				1,440
Total				$ 9,666

Equipment and Machinery

Loading and sorting chutes	$ 445
Manure spreader - 100 bushel dry	2,000
Used skid loader	3,500
Total	$ 5,945

Total Equipment Machinery and Facilities Investment	$24,611
Total Hours of Labor for Construction	464 hours

Table 12. The Facilities Required, the Investment Cost and the Labor Required for Construction of System E - 2 Litters Per Year.

Farrowing Facilities 4 - Remodeled Dairy Barn.

Item	Size and Description	Units	Cost per Unit	Total
Farrowing Facilities	Remodel 36' x 38' dairy barn	1368 sq.ft.	$ 1.81/ sq.ft.	$ 2,473
Farrowing Crates	Steel	16	250	4,000
Heating	250 Watt heat lamps	9	15	135
Total				$ 6,608

Gestation Facilities 3 - New Open Front Shed with Lot, 16 Sows, 6 Gilts, 3 Boars.

Item	Size and Description	Units	Cost per Unit	Total
Building	16' x 32' open front	512 sq.ft.	$ 3.12/ sq.ft.	$ 1,598
Concrete	In building, lot, apron	1408 sq.ft.		823
Fencing	Pen dividers			244
	Outside fence	132 ft.	1/ft.	135
Feeders	10-hole feeders	3	200	600
	2-hole feeders	1	100	100
Waterers	2-hole frost proof	2	100	200
Plumbing & Electric				1,250
Total				$ 4,950

Equipment and Machinery

Item	Total
Loading and sorting chutes	445
Manure spreader - 100 bushel dry	2,000
Used skid loader	3,500
Total	$ 5,945

Total Equipment, Machinery and Facilities Investment	$17,503
Total Hours of Labor for Construction	248 hours

Table 13. The Facilities Required, the Investment Cost and the Labor Required for Construction of System F - 4 Litters Per Year.

Farrowing Facilities 5 - Remodeled Dairy Barn with Insulation and Mechanical Ventilation.

Item	Size and Description	Units	Cost per Unit	Total
Farrowing	Remodel and insulate 36' x 38' dairy barn	1368	$ 2.60	$ 3,557
Farrowing Crates	Steel	16	250	4,000
Heating	60,000 Btu/hr unit	1	300	300
	250 Watt heat lamps	9	15	135
Ventilation	3 fans (320, 2080, 3360 CFM)			775
Total				$ 8,767

Gestation Facilities 4 - New Open Front Shed with Lot, 32 Sows, 12 Gilts, 3 Boars.

Item	Size and Description	Units	Cost per Unit	Total
Building	16' x 64' open front	1024 sq.ft.	$ 2.57/ sq.ft.	$ 2,627
Concrete	In buildings, lot, apron	2816 sq.ft.	.58/ sq.ft.	1,663
Fencing	Pen Dividers			486
	Outside fence	250 sq.ft.	1/ft.	250
Feeders	16-hole fence line	3	325	975
	2-hole feeder	2	100	200
Feed System	3 ton bin and auger			1,625
Waterers	2-hole frost proof	4	100	400
Plumbing & Electric				1,440
Total				$ 9,666

Equipment and Machinery

Loading and sorting chutes	$ 445
Manure spreader - 125 bushel	2,000
Used skid loader	3,500
Total	$ 5,945

Total Equipment, Machinery and Facilities Investment	$24,378
Total Hours of Labor for Construction	384 hours

Table 14. The Facilities Required, the Investment Cost and the Labor Required for Construction of System G - 6 Litters Per Year.

Farrowing and Nursery Facilities 6 - Remodeled Dairy Barn with liquid manure storage.

Item	Size and Description	Units	Cost per Unit	Total
Farrowing & Nursery	Remodel 36' x 60' Dairy Barn	2160 sq.ft.	$ 2.03/sq.ft.	$ 4,385
Farrowing Crates	Steel	16	250	4,000
Nursery Pens	Wooden			209
Heating	60,000 btu/hr unit	2	300	600
	250 Watt heat lamps	9	15	135
Ventilation	6 fans (320, 960, 2080 320, 2080, 3360 CFM)			1,485
Feeders (Nursery)	5 hole troughs	2	130	260
	5 hole feeder	2	84	168
Waterers (Nursery)	Cup waterer	6	12	72
Concrete Resloping	36' x 60'			1,253
Concrete Storage Tank	22' x 22' x 8'			8,944
TOTAL				$21,511

Gestation Facilities 5 - New Pole Building, 48 Sows, 21 Gilts, 3 Boars.

Sow housing	30' x 80' pole building	2400 sq.ft.	$ 6.27/sq.ft.	$15,048
Concrete Floor	30' x 80'			1,440
Waterers	2 hole frost proof	5	100	500
Feeders	16 door feeder	5	323	1,615
	12 door feeder	5	263	1,315
Feed System	4.4 ton bin & auger			1,918
TOTAL				$21,846

Equipment and Machinery

Loading and Sorting Chute	$ 445
Manure Spreader - 100 bushel dry	2,000
Liquid Manure Spreader - 1500 gallon	6,000
Pit-Agitator Pump - 8'	3,500
Used Skid Loader	3,500
TOTAL	$15,445

Total Equipment, Machinery and Facilities Investment	$58,802
Total Hours of Labor for Construction	528 hours

Table 15. The Facilities Required, the Investment Cost and the Labor Required for Construction of System H - 4 Litters Per Year.

Farrowing Facilities 7 - New Pole Building.

Item	Size and Description	Units	Cost per Unit	Total
Farrowing House	24' x 40' pole building	1152 sq.ft.	$ 6.50	$ 7,488
Farrowing Crates	Steel	16	250	4,000
Concrete Floor	24' x 48'			679
Heating	60,000 Btu/hr unit	1	300	300
	250 Watt heat lamps	10	15	150
Ventilation	3 fans (320, 2080, 3360, CFM)			775
Total				$13,392

Gestation Facilities 4 - New Open Front Shed with Lot, 32 Sows, 12 Gilts, 3 Boars.

Item	Size and Description	Units	Cost per Unit	Total
Open front unit	16' x 64'	1024 sq.ft.	$ 2.57/ sq.ft.	$ 2,627
Concrete	In building, lot, apron	2816 sq.ft.	.58/ sq.ft.	1,663
Fencing	Pen dividers			486
	Outside fence	250 ft.	1/ft.	250
Feeders	16-hole fence-line	3	325	975
	2-hole	2	100	200
Feed System	3 ton			1,625
Waterers	2-hole frost proof	4	100	400
Plumbing & Electric				1,440
Total				$ 9,666

Equipment and Machinery

Item	Total
Loading and sorting chutes	$ 445
Manure spreader - 125 bushel dry	2,000
Used skid loader	3,500
Total	$ 5,945

Total Equipment, Machinery and Facilities Investment $29,003

Total Hours of Labor for Construction 600 hours and total cost for each. New construction costs include all materials. Remodeling costs include the lumber, hardware, electrical supplies, plumbing supplies and concrete. Both the wooden farrowing crates that are constructed and the purchased steel crates contain waterers and feeders. In some systems certain common items, such as feeders and waterers, are used for both farrowing and gestation; these items are included as investment costs for the gestation facilities. No labor cost or wage rates are included in these estimates; thus, if it is necessary to hire part of the construction labor, for example, the concrete work, then that cost must be added to the investment costs. A detailed description of each system and an itemized list of materials required is given in Appendix A.

Enterprise Budgets

An annual enterprise budget is comprised of three major components. Gross receipts are an estimate of total income for the enterprise. Operating costs are a measure of the cash and non-cash expenditures during the year for variable resources. The last major component is the ownership costs which are the cash and non-cash costs related to fixed investment in the enterprise.

The gross receipts for the enterprise budgets shown in Table 16 through Table 23 list the sales that are expected based on the production calendar for an average year of operation. The prices for the culled breeding stock are based on $52.00 per hundredweight for market hogs and the normal price differences for other classes of swine commonly paid at the South St. Paul market [18].

The annual price for feeder pigs of $50.00 per head is seasonally adjusted for each marketing month. The feeder pig price index was calculated from the average prices paid by the "Wisconsin Feeder Pig Marketing Co-Op" [25] for 1970 through 1979. The monthly prices and the seasonal index are presented in Appendix C, Table 65.

Operating costs make up the major cost items on hog farms with the cost of feed being the largest operating cost. Total operating costs will vary as production varies, with increases in production resulting from increases in operation costs.

The production calendar provides the information on annual animal numbers over time for each system. Combining this with the rations fed and the corresponding feeding rates yields an estimate of the amount of feed needed for each operation. Table 24 gives the calculated

TABLE 16. AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FEEDER PIG PRODUCTION, SYSTEM A IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Litter
1.	GROSS RECEIPTS						
	FEEDER PIGS	1.00	HD.	43.35	92.00	3988.20	
	GILT N. B.	2.90	CWT.	48.00	3.00	417.60	
	SOW CULL	3.70	CWT.	44.00	15.00	2442.00	
	BOAR	4.50	CWT.	39.00	3.00	526.50	
	TOTAL					7374.30	460.89
2.	OPERATING COSTS						
	CORN		BU.	3.00	603.90	1811.70	
	SOYBEAN MEAL		CWT.	14.50	76.00	1102.00	
	MINERALS		LBS.	.05	1472.70	73.64	
	OATS		LBS.	.07	62.60	4.38	195.35
	WHEAT BRAN		LBS.	.05	672.00	33.60	
	SUGAR		LBS.	.17	31.30	5.32	
	GRIND & MIX		TONS	4.50	21.10	94.95	
	VET & MED.		DOL.	1.00	138.00	138.00	
	ELECTRICITY		KWH	.05	2135.00	117.42	
	INS. AND TAXES		DOL.	1.00	101.00	101.00	
	HAULING & MKTG.		DOL.	1.00	259.00	259.00	
	MISCL EXPENSE		DOL.	1.00	204.00	204.00	179 92
	YOUNG BOAR		HD.	450.00	3.00	1350.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			57.45	
	MACHINERY(FUEL,LUBE,REP)		DOL.			3.11	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			485.23	
	INTEREST ON OPER.CAP.,		DOL.			163.58	
	TOTAL OPERATING COSTS					6004.38	375 27
3.	INCOME ABOVE OPERATING COSTS					1369.92	85 62
4.	OWNERSHIP COSTS						
	INT. ON LIVESTOCK CAPITAL		DOL.	.12	3200.00	384.00	
	INT. ON EQUIPMENT		DOL.	.12	4338.50	520.62	
	INT. ON MACHINERY		DOL.	.12	282.23	33.87	
	DEPR. ON EQUIPMENT		DOL.			1213.08	
	DEPR. ON MACHINERY		DOL.			34.47	
	INS., TAXES ON EQPT., LVSTK., AND MACH.		DOL.			90.31	
	TOTAL OWNERSHIP COSTS					2276.35	142 27
5.	TOTAL COSTS SHOWN					8280.73	517 55
6.	NET RETURNS ABOVE COSTS SHOWN					-906.43	- 56 65

1 LITTER-16 GILTS FARROWING IN PORTABLE A-FRAME BUILDINGS.
PORTABLE GESTATION FACILITIES.

TABLE 17 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FEEDER PIG PRODUCTION, SYSTEM B IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Litter
1.	GROSS RECEIPTS						
	FEEDER PIGS	1.00	HD.	56.40	106.00	5978.40	
	FEEDER PIGS	1.00	HD.	43.35	106.00	4595.10	
	GILT N. B.	2.90	CWT.	48.00	2.00	278.40	
	SOW N. B.	3.60	CWT.	45.00	2.00	324.00	
	SOW CULL	3.70	CWT.	44.00	6.00	976.80	
	BOAR	4.50	CWT.	39.00	3.00	526.50	
	TOTAL					12679.20	396 23
2.	OPERATING COSTS						
	CORN		BU.	3.00	861.50	2584.50	
	SOYBEAN MEAL		CWT.	14.50	116.00	1682.00	
	MINERALS		LBS.	.05	2230.20	111.51	
	OATS		LBS.	.07	125.20	8.76	143 39
	WHEAT BRAN		LBS.	.05	1120.00	56.00	
	SUGAR		LBS.	.17	62.60	10.64	
	GRIND & MIX		TONS	4.50	30.00	135.00	
	VET & MED.		DOL.	1.00	251.00	251.00	
	ELECTRICITY		KWH	.05	2135.00	117.42	
	INS. AND TAXES		DOL.	1.00	190.00	190.00	
	HAULING & MKTG.		DOL.	1.00	390.00	390.00	
	MISCL EXPENSE		DOL.	1.00	204.00	204.00	103.30
	YOUNG BOAR		HD.	450.00	3.00	1350.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			57.45	
	MACHINERY(FUEL,LUBE,REP)		DOL.			3.11	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			575.06	
	INTEREST ON OPER.CAP.,		DOL.			167.47	
	TOTAL OPERATING COSTS					7893.93	246 69
3.	INCOME ABOVE OPERATING COSTS					4785.27	149 54
4.	OWNERSHIP COSTS						
	INT. ON LIVESTOCK CAPITAL		DOL.	.12	4260.00	511.20	
	INT. ON EQUIPMENT		DOL.	.12	5124.50	614.94	
	INT. ON MACHINERY		DOL.	.12	282.23	33.87	
	DEPR. ON EQUIPMENT		DOL.			1437.65	
	DEPR. ON MACHINERY		DOL.			34.47	
	INS.,TAXES ON EQPT., LVSTK., AND MACH.		DOL.			109.25	
	TOTAL OWNERSHIP COSTS					2741.38	85 67
5.	TOTAL COSTS SHOWN					10635.31	332.35
6.	NET RETURNS ABOVE COSTS SHOWN					2043.89	63 87

2 LITTER-16 SOWS FARROWING IN PORTABLE A-FRAME BUILDINGS.
PORTABLE NURSERY AND GESTATION FACILITIES.

TABLE 18. AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FEEDER PIG PRODUCTION, SYSTEM C IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Litter
1.	GROSS RECEIPTS						
	FEEDER PIGS	1.00	HD.	56.40	106.00	5978.40	
	FEEDER PIGS	1.00	HD.	43.35	106.00	4595.10	
	GILT N. B.	2.90	CWT.	48.00	2.00	278.40	
	SOW N. B.	3.60	CWT.	45.00	2.00	324.00	
	SOW CULL	3.70	CWT.	44.00	6.00	976.80	
	BOAR	4.50	CWT.	39.00	3.00	526.50	
	TOTAL					12679.20	396.23
2.	OPERATING COSTS						
	CORN		BU.	3.00	917.50	2752.50	
	SOYBEAN MEAL		CWT.	14.50	122.40	1774.80	
	MINERALS		LBS.	.05	2375.30	118.76	
	OATS		LBS.	.07	125.20	8.76	152 24
	WHEAT BRAN		LBS.	.05	1120.00	56.00	
	SUGAR		LBS.	.17	62.60	10.64	
	GRIND & MIX		TONS	4.50	33.40	150.30	
	VET & MED.		DOL.	1.00	251.00	251.00	
	ELECTRICITY		KWH	.05	8432.00	463.76	
	INS. AND TAXES		DOL.	1.00	165.00	165.00	
	HAULING & MKTG.		DOL.	1.00	354.50	354.50	
	MISCL EXPENSE		DOL.	1.00	228.00	228.00	129 61
	YOUNG BOAR		HD.	450.00	3.00	1350.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			651.49	
	MACHINERY(FUEL,LUBE,REP)		DOL.			20.51	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			417.66	
	INTEREST ON OPER.CAP.,		DOL.			245.55	
	TOTAL OPERATING COSTS					9019.24	281 85
3.	INCOME ABOVE OPERATING COSTS					3659.96	114 37
4.	OWNERSHIP COSTS						
	INT. ON LIVESTOCK CAPITAL		DOL.	.12	4260.00	511.20	
	INT. ON EQUIPMENT		DOL.	.12	4515.50	541.86	
	INT. ON MACHINERY		DOL.	.12	973.97	116.88	
	DEPR. ON EQUIPMENT		DOL.			1263.65	
	DEPR. ON MACHINERY		DOL.			114.01	
	INS., TAXES ON EQPT., LVSTK., AND MACH.		DOL.			103.65	
	TOTAL OWNERSHIP COSTS					2651.25	82 85
5.	TOTAL COSTS SHOWN					11670.49	364 70
6.	NET RETURNS ABOVE COSTS SHOWN					1008.71	31 52

2 LITTER-16 SOWS A REMODELED UNINSULATED BUILDING FOR FARROWING AND NURSERY. OPEN FRONT REMODELED SHED USED FOR GESTATION.

TABLE 19 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FEEDER PIG PRODUCTION, SYSTEM D IN AVERAGE YEAR OF PRODUCTION .

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Litter
1.	GROSS RECEIPTS						
	FEEDER PIGS	1.00	HD.	56.65	111.00	6288.15	
	FEEDER PIGS	1.00	HD.	49.55	111.00	5500.05	
	FEEDER PIGS	1.00	HD.	48.05	111.00	5333.55	
	FEEDER PIGS	1.00	HD.	43.35	111.00	4811.85	
	SOW N. B.	3.60	CWT.	45.00	4.00	648.00	
	GILT N. B.	2.90	CWT.	48.00	4.00	556.80	
	SOW CULL	3.70	CWT.	44.00	12.00	1953.60	
	BOAR	4.50	CWT.	39.00	3.00	526.50	
	TOTAL					25618.50	400 29
2.	OPERATING COSTS						
	CORN		BU.	3.00	1727.90	5183.70	144 41
	SOYBEAN MEAL		CWT.	14.50	234.00	3393.00	
	MINERALS		LBS.	.05	4478.30	223.92	
	OATS		LBS.	.07	261.60	18.31	
	WHEAT BRAN		LBS.	.05	2293.30	114.67	
	SUGAR		LBS.	.17	130.80	22.24	
	GRIND & MIX		TONS	4.50	63.60	286.20	
	VET & MED.		DOL.	1.00	444.00	444.00	109 24
	INS. AND TAXES		DOL.	1.00	330.00	330.00	
	HAULING & MKTG.		DOL.	1.00	718.00	718.00	
	LP GAS		GAL.	1.00	664.00	664.00	
	ELECTRICITY		KWH	.05	15700.00	863.50	
	MISCL EXPENSE		DOL.	1.00	252.00	252.00	
	YOUNG BOAR		HD.	450.00	3.00	1350.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			1244.47	
	MACHINERY(FUEL,LUBE,REP)		DOL.			33.32	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			667.11	
	INTEREST ON OPER.CAP.,		DOL.			424.75	
	TOTAL OPERATING COSTS					16233.18	253 64
3.	INCOME ABOVE OPERATING COSTS					9385.32	146 65
4.	OWNERSHIP COSTS						
	INT. ON LIVESTOCK CAPITAL		DOL.	.12	7620.00	914.40	
	INT. ON EQUIPMENT		DOL.	.12	9555.50	1146.66	
	INT. ON MACHINERY		DOL.	.12	1702.39	204.29	
	DEPR. ON EQUIPMENT		DOL.			2128.30	
	DEPR. ON MACHINERY		DOL.			198.28	
	INS.,TAXES ON EQPT., LVSTK., AND MACH.		DOL.			208.82	
	TOTAL OWNERSHIP COSTS					4800.75	75 01
5.	TOTAL COSTS SHOWN					21033.93	328 66
6.	NET RETURNS ABOVE COSTS SHOWN					4584.57	71 63

4 LITTER-32 SOWS A REMODELED INSULATED AND VENTILATED BUILDING FOR FARROWING NEW OPEN FRONT SHED FOR GESTATION.

TABLE 20 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FEEDER PIG PRODUCTION, SYSTEM E IN AVERAGE YEAR OF PRODUCTION.

ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Litter
1. GROSS RECEIPTS						
FEEDER PIGS	1.00	HD.	56.40	106.00	5978.40	
FEEDER PIGS	1.00	HD.	43.35	106.00	4595.10	
GILT N. B.	2.90	CWT.	48.00	2.00	278.40	
SOW N. B.	3.60	CWT.	45.00	2.00	324.00	
SOW CULL	3.70	CWT.	44.00	6.00	976.80	
BOAR	4.50	CWT.	39.00	3.00	526.50	
TOTAL					12679.20	396 22
2. OPERATING COSTS						
CORN		BU.	3.00	918.60	2755.80	
SOYBEAN MEAL		CWT.	14.50	122.60	1777.70	
MINERALS		LBS.	.05	2372.10	118.61	
OATS		LBS.	.07	125.20	8.76	152.46
WHEAT BRAN		LBS.	.05	1120.00	56.00	
SUGAR		LBS.	.17	62.60	10.64	
GRIND & MIX		TONS	4.50	33.60	151.20	
VET & MED.		DOL.	1.00	251.00	251.00	
ELECTRICITY		KWH	.05	6044.00	332.42	
HAULING & MKTG.		DOL.	1.00	354.50	354.50	
INS. AND TAXES		DOL.	1.00	142.00	142.00	
MISCL EXPENSE		DOL.	1.00	240.00	240.00	
YOUNG BOAR		HD.	450.00	3.00	1350.00	124 95
TRACTORS(FUEL,LUBE,REP)		DOL.			651.49	
MACHINERY(FUEL,LUBE,REP)		DOL.			20.51	
EQUIPMENT(FUEL,LUBE,REP)		DOL.			401.16	
INTEREST ON OPER.CAP.,		DOL.			255.42	
TOTAL OPERATING COSTS					8877.20	277.41
3. INCOME ABOVE OPERATING COSTS					3802.00	118 81
4. OWNERSHIP COSTS						
INT. ON LIVESTOCK CAPITAL		DOL.	.12	4260.00	511.20	
INT. ON EQUIPMENT		DOL.	.12	6001.50	720.18	
INT. ON MACHINERY		DOL.	.12	973.97	116.88	
DEPR. ON EQUIPMENT		DOL.			1393.58	
DEPR. ON MACHINERY		DOL.			114.01	
INS., TAXES ON EQPT., LVSTK., AND MACH.		DOL.			127.43	
TOTAL OWNERSHIP COSTS					2983.27	93 23
5. TOTAL COSTS SHOWN					11860.47	370 64
6. NET RETURNS ABOVE COSTS SHOWN					818.73	25 59

2 LITTER-16 SOWS REMODELED UNINSULATED DAIRY BARN FOR FARROWING AND NURSERY. NEW OPEN FRONT SHED FOR GESTATION.

TABLE 21 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FEEDER PIG PRODUCTION, SYSTEM F IN AVERAGE YEAR OF PRODUCTION.

ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Litter
1. GROSS RECEIPTS						
FEEDER PIGS	1.00	HD.	56.65	111.00	6288.15	
FEEDER PIGS	1.00	HD.	49.55	111.00	5500.05	
FEEDER PIGS	1.00	HD.	48.05	111.00	5333.55	
FEEDER PIGS	1.00	HD.	43.35	111.00	4811.85	
SOW N. B.	3.60	CWT.	45.00	4.00	648.00	
GILT N. B.	2.90	CWT.	48.00	4.00	556.80	
SOW CULL	3.70	CWT.	44.00	12.00	1953.60	
BOAR	4.50	CWT.	39.00	3.00	526.50	
TOTAL					25618.50	400 29
2. OPERATING COSTS						
CORN		BU.	3.00	1727.90	5183.70	
SOYBEAN MEAL		CWT.	14.50	234.00	3393.00	
MINERALS		LBS.	.05	4478.30	223.92	
OATS		LBS.	.07	261.60	18.31	144 41
WHEAT BRAN		LBS.	.05	2293.30	114.67	
SUGAR		LBS.	.17	130.80	22.24	
GRIND & MIX		TONS	4.50	63.60	286.20	
VET & MED.		DOL.	1.00	444.00	444.00	
INS. AND TAXES		DOL.	1.00	290.00	290.00	
HAULING & MKTG.		DOL.	1.00	718.00	718.00	
LP GAS		GAL.	1.00	664.00	664.00	
ELECTRICITY		KWH	.05	13316.00	732.38	106 53
MISCL EXPENSE		DOL.	1.00	242.00	242.00	
YOUNG BOAR		HD.	450.00	3.00	1350.00	
TRACTORS(FUEL,LUBE,REP)		DOL.			1244.47	
MACHINERY(FUEL,LUBE,REP)		DOL.			33.32	
EQUIPMENT(FUEL,LUBE,REP)		DOL.			679.61	
INTEREST ON OPER.CAP.,		DOL.			420.05	
TOTAL OPERATING COSTS					16059.86	250 94
3. INCOME ABOVE OPERATING COSTS					9558.64	149 35
4. OWNERSHIP COSTS						
INT. ON LIVESTOCK CAPITAL		DOL.	.12	7620.00	914.40	
INT. ON EQUIPMENT		DOL.	.12	9439.00	1132.68	
INT. ON MACHINERY		DOL.	.12	1702.39	204.29	
DEPR. ON EQUIPMENT		DOL.			2095.01	
DEPR. ON MACHINERY		DOL.			198.29	
INS.,TAXES ON EQPT., LVSTK., AND MACH.		DOL.			206.96	
TOTAL OWNERSHIP COSTS					4751.62	74 24
5. TOTAL COSTS SHOWN					20811.48	325 18
6. NET RETURNS ABOVE COSTS SHOWN					4807.02	75 11

+ LITTER-32 SOWS REMODELED INSULATED VENTILATED DAIRY BARN FOR FARROWING AND NURSERY. NEW OPEN FRONT SHED FOR GESTATION.

TABLE 22 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FEEDER PIG PRODUCTION, SYSTEM G IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Litter
1.	GROSS RECEIPTS						
	FEEDER PIGS	1.00	HD.	52.55	111.00	5833.05	
	FEEDER PIGS	1.00	HD.	58.50	114.00	6669.00	
	FEEDER PIGS	1.00	HD.	49.55	114.00	5648.70	
	FEEDER PIGS	1.00	HD.	48.55	114.00	5534.70	
	FEEDER PIGS	1.00	HD.	46.95	114.00	5352.30	
	FEEDER PIGS	1.00	HD.	43.35	114.00	4941.90	
	SOW N. B.	3.60	CWT.	45.00	7.00	1134.00	
	GILT N. B.	2.90	CWT.	48.00	8.00	1113.60	
	SOW CULL	3.70	CWT.	44.00	18.00	2930.40	
	BOAR	4.50	CWT.	39.00	3.00	526.50	
	TOTAL					39684.15	413.38
2.	OPERATING COSTS						
	CORN		BU.	3.00	2671.90	8015.70	
	SOYBEAN MEAL		CWT.	14.50	363.90	5276.55	
	MINERALS		LBS.	.05	6978.60	348.93	
	OATS		LBS.	.07	402.80	28.20	149.12
	WHEAT BRAN		LBS.	.05	3494.40	174.72	
	SUGAR		LBS.	.17	201.40	34.24	
	GRIND & MIX		TONS	4.50	97.20	437.40	
	VET & MED.		DOL.	1.00	612.00	612.00	
	INS. AND TAXES		DOL.	1.00	440.00	440.00	
	HAULING & MKTG.		DOL.	1.00	1092.00	1092.00	
	LP GAS		GAL.	1.00	760.00	760.00	
	ELECTRICITY		KWH	.05	19440.00	1069.20	94 39
	MISCL EXPENSE		DOL.	1.00	276.00	276.00	
	YOUNG BOAR		HD.	450.00	3.00	1350.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			1064.45	
	MACHINERY(FUEL,LUBE,REP)		DOL.			107.66	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			1642.76	
	INTEREST ON OPER.CAP.,		DOL.			647.10	
	TOTAL OPERATING COSTS					23376.91	243 51
3.	INCOME ABOVE OPERATING COSTS					16307.24	169 87
4.	OWNERSHIP COSTS						
	INT. ON LIVESTOCK CAPITAL		DOL.	.12	10980.00	1317.60	
	INT. ON EQUIPMENT		DOL.	.12	23651.00	2838.12	
	INT. ON MACHINERY		DOL.	.12	2953.16	354.38	
	DEPR. ON EQUIPMENT		DOL.			5430.58	
	DEPR. ON MACHINERY		DOL.			363.53	
	INS., TAXES ON EQPT., LVSTK., AND MACH.		DOL.			462.01	
	TOTAL OWNERSHIP COSTS					10766.23	112.15
5.	TOTAL COSTS SHOWN					34143.13	355 66
6.	NET RETURNS ABOVE COSTS SHOWN					5541.02	57 72

6 LITTER-48 SOWS REMODELED INSULATED VENTILATED DAIRY BARN WITH MANURE STORAGE FOR FARROWING AND NURSERY.NEW MODIFIED OPEN FRONT SHED FOR GESTATION

TABLE 23 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FEEDER PIG PRODUCTION, SYSTEM H IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Litter
1.	GROSS RECEIPTS						
	FEEDER PIGS	1.00	HD.	56.65	111.00	6288.15	
	FEEDER PIGS	1.00	HD.	49.55	111.00	5500.05	
	FEEDER PIGS	1.00	HD.	48.05	111.00	5333.55	
	FEEDER PIGS	1.00	HD.	43.35	111.00	4811.85	
	SOW N. B.	3.60	CWT.	45.00	4.00	648.00	
	GILT N. B.	2.90	CWT.	48.00	4.00	556.80	
	SOW CULL	3.70	CWT.	44.00	12.00	1953.60	
	BOAR	4.50	CWT.	39.00	3.00	526.50	
	TOTAL					25618.50	400 29
2.	OPERATING COSTS						
	CORN		BU.	3.00	1727.90	5183.70	
	SOYBEAN MEAL		CWT.	14.50	234.00	3393.00	
	MINERALS		LBS.	.05	4478.30	223.92	
	GRAIN		LBS.	.07	261.60	18.31	144 41
	WHEAT BRAN		LBS.	.05	2293.30	114.67	
	SUGAR		LBS.	.17	130.80	22.24	
	GRIND & MIX		TONS	4.50	63.60	286.20	
	VET & MED.		DOL.	1.00	444.00	444.00	
	INS. AND TAXES		DOL.	1.00	290.00	290.00	
	HAULING & MKTG.		DOL.	1.00	718.00	718.00	
	LP GAS		GAL.	1.00	664.00	664.00	
	ELECTRICITY		KWH	.05	13316.00	732.38	
	MISCL EXPENSE		DOL.	1.00	264.00	264.00	106 07
	YOUNG BOAR		HD.	450.00	3.00	1350.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			1244.47	
	MACHINERY(FUEL,LUBE,REP)		DOL.		-	33.32	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			629.13	
	INTEREST ON OPER.CAP.,		DOL.			419.43	
	TOTAL OPERATING COSTS					16030.76	250.48
3.	INCOME ABOVE OPERATING COSTS					9587.74	149.81
4.	OWNERSHIP COSTS						
	INT. ON LIVESTOCK CAPITAL		DOL.	.12	7620.00	914.40	
	INT. ON EQUIPMENT		DOL.	.12	11751.50	1410.18	
	INT. ON MACHINERY		DOL.	.12	1702.39	204.29	
	DEPR. ON EQUIPMENT		DOL.			1958.58	
	DEPR. ON MACHINERY		DOL.			198.28	
	INS.,TAXES ON EQPT., LVSTK., AND MACH.		DOL.			243.96	
	TOTAL OWNERSHIP COSTS					4929.69	77 03
5.	TOTAL COSTS SHOWN					20960.45	327 51
6.	NET RETURNS ABOVE COSTS SHOWN					4658.05	72 78

4 LITTER-32 SOWS NEW POLE BUILDING FOR FARROWING AND NURSERY.
NEW POLE BUILGING FOR GESTATION.

annual amounts of corn, soybean meal (48.5%) and total pounds of feed necessary for each system. These reflect winter feeding between November and March, increased replacement numbers for summer breeding, and reduced feed for pasture systems. Thus, even though Systems B and C represent similar animal numbers, the nutrient value of the pasture replaces some of the corn and soybean meal requirements for System B.

Table 24. Annual Feed Requirement for Feeder Pig Production Systems

System	Bushels of Corn	Cwt. of 48.5% Meal	Tons of Total Feed
A	603.9	76.0	21.8
B	861.5	116.0	30.0
C	917.5	122.4	33.4
D	1727.9	234.0	63.6
E	918.6	122.6	33.6
F	1727.9	234.0	63.6
G	2671.9	363.9	97.2
H	1727.9	234.0	63.6

Three types of energy consumption are estimated as operating costs for the low to medium investment hog operations analyzed. They are (1) electricity for lighting and ventilation; (2) L.P. gas (or natural gas) for space heating, and (3) gasoline and diesel fuel to run machinery and equipment for such things as manure handling and disposal.

The level of energy consumption on a livestock operation is a function of many variables including animal numbers, inside-outside temperature and size of equipment. In this study the requirements for KWH of electricity are derived from estimates of KWH usage per month for the various electrical equipment [5], lights and ventilation fans used in a given system.

The heating calculations take into consideration the number of animals in the building, the ventilation rate, expected building heat loss, a desired inside temperature of 70°F in the farrowing house and 80°F in the nursery, and the expected outside temperature based on historical temperature data for Minnesota. The gasoline and diesel fuel requirements for manure handling reflects the level of manure the system is expected to produce, the type of manure handling system and size of tractor.

The estimated KWH/month for various electrical items is given in Appendix B . Also provided in Appendix B are the equations used to calculate the supplemental heat requirements and the temperature data.

Table 25 lists the estimated levels of energy consumption for the various systems. The pasture systems A and B require the least energy per litter because they do not require fuel for heating, manure loading and manure hauling. The calculated energy cost is $5.03 per litter with System B and $10.05 per litter with System A. The energy costs for the other systems range from $26.65 to $39.50 per litter. The four litter systems D, F and H require the most energy per litter, $39.50, $37.45 and $37.45, respectively.

The other operating cost items are based on actual farm accounts, research findings and mid-1980 prices. These cost items are listed in each enterprise budget. The "Hog Producers Planning Guide" by the Agricultural Extension Service contains annually updated operating cost information [11]. The miscellaneous expense includes the cost of bedding, livestock supplies, small tools, office expenses and other minor items that can be attributed to the hog enterprise.

Table 25. Energy Requirements Per Year for the Feeder Pig Production Systems.

System	KWH of Electricity	Gal. of L.P. Gas for Heating[1/]	Gallons of Fuel	Annual System Cost[2/]	Cost per Litter
A	2135	--	29	$ 160.87	$ 10.05
B	2135	--	29	160.87	5.03
C	8432	--	330	984.06	30.75
D	15700	664	633	2,527.70	39.50
E	6044	--	330	852.72	26.65
F	13316	664	633	2,396.58	37.45
G	19440	851	537	2,754.20	28.69
H	13316	664	633	2,396.58	37.45

1/ Other forms of energy, such as natural gas, may be used
One gallon of L.P. yields 73,600 BTU of heat based on 92,000 BTU/gallon and an 90 percent efficiency.

2/ Assumed prices:

Assumed prices:	Electricity	$.055/KWH
	L.P. Gas	1.00 /Gal.
	Diesel Fuel	1.50 /Gal.
	Gasoline	1.60 /Gal.

Ownership costs measure the annual cash and non-cash costs for the investment in the hog system. They include depreciation, interest on the money invested, real estate taxes and insurance. This includes interest on the investment at an annual rate of 12 percent which reflects cash interest expenditures and/or the opportunity cost of owner equity. The main ownership cost is depreciation on the facilities. The remodeled facilities were assumed to have a useful life of seven years while new

facilities are expected to be fully depreciated over 12 years. The livestock investment was calculated on an average investment of $160 for gilts, $200 for sows and $300 for boars. These prices are the average of their assumed purchase price and salvage value. Insurance on the investment for buildings, machinery and livestock is estimated to be .6% of average investment. Taxes are estimated as one percent of the average investment in buildings.

Net returns above costs shown is a measure of the profit of the individual enterprise and is the residual return to labor, management and land. Table 26 compares receipts, costs and net returns for the various systems. The net returns above costs shown range from a low of $-906.43 for System A annually to a high of $5,541.02 for System G. Systems E, C, B, D, H and F are ordered from low to high returns between the extremes.

The hours of labor required annually by each system also are shown in Table 26. System F which had the second highest net returns above costs shown has the highest net returns per hour, $5.45. The other four litter systems, D and H show net returns per hour just below that of

Table 26. Summary of Average Annual Enterprise Budgets for the Eight Feeder Pig Production Systems.

System	Total Gross Receipts	Total Operating Costs	Total Ownership Costs	Net Returns Above Costs Shown	Total Labor Hours	Net Returns Per Hour	Net Returns Per Litter
A	$ 7,374.30	$ 6,004.38	$ 2,276.35	$- 906.43	304	$-2.98	$-56.65
B	12,679.20	7,893.93	2,741.38	2,043.89	485	4.21	63.87
C	12,679.20	9,019.24	2,651.25	1,008.71	480	2.10	31.52
D	25,618.50	16,233.18	4,800.75	4,584.57	882	5.20	71.63
E	12,679.20	8,877.20	2,983.27	818.73	480	1.71	25.59
F	25,618.50	16,059.86	4,751.62	4,807.02	882	5.45	75.11
G	39,684.15	23,376.91	10,766.23	5,541.02	1264	4.38	57.72
H	25,618.50	16,030.76	4,929.69	4,658.05	882	5.28	72.78

System F. System G, the six litter system, which had the highest annual returns has substantially lower net returnsper hour than Systems D, F and H. The net return per hour of $4.38 for System G results from two factors: 1) System G requires more labor than the other systems and 2) the high investment cost, particularly the $8,944 for the concrete manure storage tank and $6,000 for the liquid manure spreader increase ownership costs. Systems E, C and B with net returns per hour of $1.71, $2.10 and $4.21 are substantially below the four litter systems. The low returns to these three systems reflect farrowing just two litters per year. The infrequent facility use does not generate enough gross income relative to the fixed ownership costs. For example, System F, which has higher net returns, has ownership costs of 19 percent of gross income, whereas System E's ownership costs are 24 percent of gross receipts.

Similar results are evident with net returns per litter. The four litter systems are again the most profitable and the one litter system least profitable. The two litter pasture system, however, is more profitable than the six litter System G on a per litter basis. This again reflects the high ownership cost of System G.

The lack of profit for System A is the result of two items. First, the annual ownership cost for A is just slightly below that of the two litter systems; however, System A has substantially lower gross receipts. Secondly, total operating costs are high due to the year around feeding of the gilt breeding herd that produces just one litter annually.

Table 27 gives a comparison of the change in net returns of the various systems as the price of energy inputs increase. Net returns are recalculated for energy price double and triple those used in the enterprise budgets. It is clear that the low energy use Systems A and B are little affected by the increase in energy prices and note that with tripled prices, System B is the only system that continues to show a positive net return. The more profitability of the energy intensive Systems D, F, G and H are drastically reduced by the price increases. With a doubling of energy price and other costs held constant, the net returns of these systems are cut to less than one half. Increasing energy prices to triple current levels results in negative net returns. It may be argued that the price of all energy items may not go up proportionally, particularly that electricity may not increase as rapidly as the other energy inputs. Assuming that the cost of electricity does not increase as rapidly would change the size of the net returns of Table 27 but not the relationship of the various systems since the low energy Systems A and B use mostly electricity, while the high energy use systems consume, proportionally to total energy use, less electricity.

Cash Flow Projections

Average annual enterprise budgets provide a great deal of information about the average profitability of an enterprise over a period of several years. However, they do not indicate how much cash is required during the first several years of operation to get the business established. Projected cash flows were prepared to analyze the amount of capital a farmer must provide from his own and borrowed capital during the first two years to operate each of these systems.

Table 27. Affect of Increased Energy Costs on Net Returns Per Litter for the Feeder Pig Production Systems.

System	Net Returns Per Litter	Net Returns Per Litter When Energy Costs Double[1/]	Net Returns Per Litter When Energy Costs Triple[2/]
A	-56.65	-67.30	-77.96
B	63.87	58.54	53.21
C	31.52	- 1.85	-34.44
D	71.63	29.76	-12.11
E	25.59	- 2.66	-30.91
F	75.11	35.41	- 4.28
G	57.72	27.31	- 3.10
H	72.78	33.08	- 6.61

1/ Prices at:

Electricity	$ .11/KWH
L.P. Gas	2.00/Gal.
Diesel Fuel	3.00/Gal.
Gasoline	3.20/Gal.

2/ Prices at:

Electricity	$ .165/KWH
L.P. Gas	3.00 /Gal.
Diesel Fuel	4.50 /Gal.
Gasoline	4.80 /Gal.

The projected cash flows are based on:

(1) The construction and investment calendar for getting equipment and buildings in place and functioning on the farm, and

(2) The production schedule for purchasing the breeding stock and farrowing the first litter.

Obviously, these two time schedules are inter-dependent. The breeding stock cannot be purchased until the gestation facilities are ready for use and the farrowing facilities must be ready before the first farrowing.

Figures 8 through 12 depict the construction and production schedule for the first and second years of operation. These schedules form the basis for the cash flow analysis of the systems. The analysis assumes that no construction of new structures takes place until early spring when the frost has left the ground, but that remodeling of existing structures start somewhat earlier. Payment for construction materials are assumed to be made when the materials are used. Purchases of livestock and machinery are also assumed to be made when those items are scheduled to be placed in service or used on the farm. For example, Figure 11 indicates the first group of gilts are purchased after one-half of the gestation building is completed.

Having established the schedule of construction and investment and determined the animal flow for the system, it is possible to generate a detailed monthly cash flow. Table 28 shows the detailed cash flow for System D during the third year of operation. The first section describes the monthly cash inflows of receipts to the feeder pig operation. The second section lists the cash expenditures for both operating inputs and the capital investments. The third section is the flow of funds summary. The first line of this section, cash balance beginning, indicates the monthly cash balance

Figure 8: Construction and Production Calendar for First Two Years of Operation for One-Litter Feeder Pig System A

Groups / Week of:		First Year of Operation: Construction	First Year: Livestock Purchases	First Year: Livestock Sales	Second Year of Operation: Livestock Purchases	Second Year: Livestock Sales
Jan.	3					
	10					
	17					
	24					
	31					
Feb.	7					
	14					
	21					
	28					
Mar.	7					
	14					
	21	Build				
	28	fence &				
Apr.	4	gestation	20 gilts		3 boars	
	11	shelters	3 boards			
	18					
	25					
May	2					
	9		Breed		Breed	
	16					
	23					
	30					
June	6			3 nonbred		3 nonbred gilts
	13			gilts		3 boars
	20			3 boars		
	27	Build				
July	4	A-frame				
	11	Huts				
	18					
	25					
Aug.	1					
	8					
	15					
	22					
	29					
Sept.	5		Farrow		Farrow	
	12					
	19					
	26					
Oct.	3					
	10					
	17					
	24					
	31			15 cull sows		15 cull sows
Nov.	7			92 feeder pigs		92 feeder pigs
	14					
	21					
	28					
Dec.	5					
	12					
	19					
	26					

Figure 9: Construction and Production Calendar for First Two Years of Operation for Two-Litter Feeder Pig System B

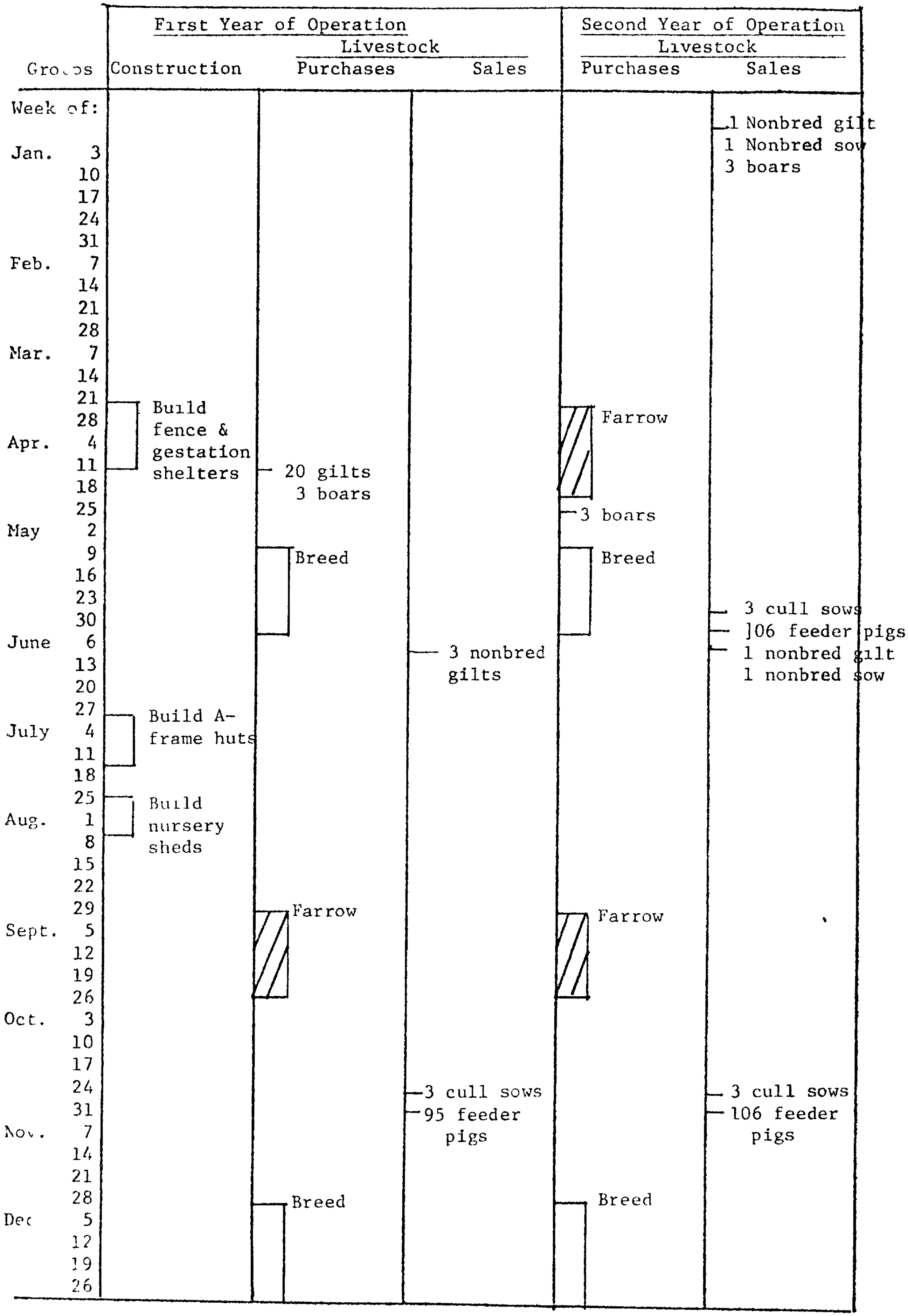


Figure 10. Construction and Production Calendar for First Two Years of Operation for Two-Litter Feeder Pig System C and E.

Groups		First Year of Operation			Second Year of Operation	
			Livestock		Livestock	
		Construction	Purchases	Sales	Purchases	Sales
Week of:						
Jan.	3					
	10					
	17					
	24					
	31					
Feb.	7					
	14					3 boars
	21					
	28					
Mar.	7				Farrow	
	14	Build or remodel gestation facilities				
	21					
	28					
Apr.	4				3 boars	
	11		20 gilts 3 boars			
	18					3 cull sows 106 feeder pigs
	25					
May	2					
	9					
	16		Breed		Breed	
	23					
	30					
June	6	Build or remodel farrowing facilities		3 non-bred gilts		1 non-bred gilt 1 non-bred sow
	13					
	20					
	27					
July	4					
	11					
	18					
	25					
Aug.	1					
	8					
	15					
	22					
	29					
Sept.	5	Buy machinery	Farrow		Farrow	
	12					
	19					
	26					
Oct.	3		6 replacement gilts			
	10					
	17					
	24					
	31			3 cull sows 95 feeder pigs		3 cull sows 106 feeder pigs
Nov.	7					
	14		Breed		Breed	
	21					
	28					
Dec.	5			1 non-bred gilt 1 non-bred sow		1 non-bred gilt 1 non-bred sow
	12					
	19					
	26					

Figure 11. Construction and Production Calendar for First Two Years of Operation for Four-Litter Feeder Pig Systems D, F and H.

Groups		First Year of Operation			Second Year of Operation	
			Livestock		Livestock	
		Construction	Purchases	Sales	Purchases	Sales
Week of:						
Jan.	3				Farrow "B"	
	10					
	17					
	24					
	31				6 gilts replacements for "B"	
Feb.	7					
	14					
	21					
	28					3 cull sows
Mar.	7				Breed "B"	98 feeder pigs
	14					
	21					
	28					1 non-bred gilt
Apr.	4	Build or remodel ½ of gestation facilities			Farrow "A"	1 non-bred sow
	11					3 boars
	18					
	25					
May	2		20 gilts "Group A" 3 boars			
	9				3 boars	
	16					
	23					
	30					3 cull sows
June	6	Buy machinery	Breed "A"		Breed "A"	111 feeder pigs
	13					
	20	Finish gestation facilities				
	27					
July	4			3 non-bred gilts	Farrow "B"	1 non-bred gilt
	11					1 non-bred sow
	18					
	25		20 gilts "Group B"			
Aug.	1	Build or remodel farrowing facilities				
	8					
	15					
	22					
	29					3 cull sows
Sept.	5		Breed "B"		Breed "B"	111 feeder pigs
	12					
	19					
	26					1 non-bred gilt
Oct	3		Farrow "A"	3 non-bred gilts	Farrow "A"	1 non-bred sow
	10					
	17					
	24					
	31		Buy 6 replacement gilts for "A"			
Nov.	7					
	14					
	21			3 cull sows		3 cull sows
	28		Breed "A"	98 feeder pigs	Breed "A"	111 feeder pigs
Dec	5					
	12			1 non-bred gilt		
	19					
	26			1 non-bred sow		

Figure 12. Construction and Production Calendar for First Two Years of Operation for Six-Litter Feeder Pig System G.

Groups	First Year of Operation: Construction	First Year: Livestock Purchases	First Year: Livestock Sales	Second Year of Operation: Livestock Purchases	Second Year: Livestock Sales
Week of:				Breed "A"	
Jan. 3					
10					
17					1 non-bred gilt
24				6 replacement gilts	1 non-bred sow
31					
Feb. 7					3 cull sows
14				Farrow "C"	98 feeder pigs
21				Breed "B"	
28					
Mar. 7					
14					1 non-bred gilt
21					1 non-bred sow
28				6 replacement gilts	
Apr. 4	Build gestation facilities				3 cull sows
11				Farrow "A"	111 feeder pigs
18					
25				Breed "C"	
May 2					
9					3 boars
16		20 gilts Group "A" 3 boars			
23					1 non-bred gilt
30					1 non-bred sow
June 6				3 boars	3 cull sows
13				Farrow "B"	
20					114 feeder pigs
27		Breed "A"		Breed "A"	
July 4	Buy machinery				
11					
18	Remodel dairy barn for farrowing and nursery				1 non-bred gilt
25		23 gilts Group "B"	3 non-bred gilts		1 non-bred sow
Aug. 1					
8				Farrow "C"	3 cull sows
15					114 feeder pigs
22		Breed "B"		Breed "B"	
29					
Sept. 5					
12					
19					3 non-bred gilts
26		20 gilts Group "C"	6 non-bred gilts		2 non-bred sows
Oct. 3					
10	Buy pit-pump & liquid spreader	Farrow "A"			3 cull sows
17				Farrow "A"	114 feeder pigs
24		Breed "C"		Breed "C"	
31					
Nov. 7					
14					1 non-bred gilt
21			3 non-bred gilts		1 non-bred sow
28		6 replacement gilts			
Dec. 5					
12			3 cull sows		3 cull sows
19		Farrow "B"		Farrow "B"	114 feeder pigs
26			101 feeder pigs		

on hand at the beginning of the month. Line 2, the cash difference between receipts and expenses, is added to line 1 to give the current cash balance at the end of each month (line 3). If expenditures are greater than receipts and borrowing is necessary, the amount borrowed is shown in line 4. If receipts are greater than expenditures and the difference is greater than the cash balance assumed, payments are made first on the interest accrued (line 6) at the specified interest rate (9 percent) and then on the loan principal (line 5). The cash balance at the end of the month (line 7) is at least equal to the assumed minimum cash balance. The cash balance ending for one month (line 7) is the cash balance beginning for the succeeding month. The fourth section is the current loan summary. The first, third, and fifth lines of this section show the accumulated borrowing, the accrued interest, and accumulated total debt (borrowing plus interest) carried over from the previous year of operation, respectively. The second, fourth, and sixth lines indicate the monthly accumulated borrowing, accured interest, and accumulated total debt which the enterprise accrues during the given year.

TABLE 28. MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM D THIRD YEAR OF PRODUCTION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	6288.	0	0	0	0	0	0	0	0	0	6288.
FEEDER PIGS	1.0	0	0	0	0	0	5500.	0	0	0	0	0	0	5500.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	5334.	0	0	0	5334.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	0	4812.	4812.
SOW N. B.	1.0	162.	0	0	162.	0	0	162.	0	162.	0	0	0	648.
GILT N. B.	1.0	139.	0	139.	0	0	0	139.	0	139.	0	0	0	557.
SOW CULL	1.0	0	0	488.	0	0	488.	0	0	488.	0	0	488.	1954.
BOAR	1.0	0	0	0	527.	0	0	0	0	0	0	0	0	527.
TOTAL		301.	0	6916.	689.	0	5988.	301.	0	6123.	0	0	5300.	25619.
CASH EXPENSES														
CORN	1.0	402.	587.	373.	270.	552.	343.	348.	595.	329.	338.	630.	417.	5184.
SOYBEAN MEAL	1.0	248.	409.	228.	167.	397.	212.	215.	425.	197.	204.	441.	251.	3393.
MINERALS	1.0	18.	25.	16.	12.	24.	15.	15.	26.	14.	15.	27.	18.	224.
OATS	1.0	5.	0	0	4.	0.	0	5.	0	0	5.	0	0	18.
WHEAT BRAN	1.0	19.	10.	0	16.	13.	0	18.	11.	0	17.	12.	0	115.
SUGAR	1.0	6.	0	0	5.	0.	0	6.	0	0	6.	0	0	22.
GRIND & MIX	1.0	23.	32.	20.	15.	31.	18.	20.	33.	18.	19.	35.	22.	286.
VET & MED.	1.0	51.	30.	30.	51.	30.	30.	51.	30.	30.	51.	30.	30.	444.
INS. AND TAXES	1.0	0	0	0	0	0	0	330.	0	0	0	0	0	330.
HAULING & MKTG.	1.0	9.	0	166.	27.	0	166.	9.	0	175.	0	0	166.	718.
LP GAS	1.0	213.	153.	80.	14.	0	0	0	0	0	0	53.	153.	664.
ELECTRICITY	1.0	15.	186.	15.	15.	186.	15.	15.	186.	15.	15.	186.	15.	864.
MISCL EXPENSE	1.0	21.	21.	21.	21.	21.	21.	21.	21.	21.	21.	21.	21.	252.
YOUNG BOAR	1.0	0	0	0	0	0	0	1350.	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	0	311.	0	0	311.	0	0	311.	0	0	311.	1244.
MACHINE(FUEL,LUB,REP)		0	0	8.	0	0	8.	0	0	8.	0	0	8.	33.
EQUIP. (FUEL,LUB,REP)		56.	56.	56.	56.	56.	56.	56.	56.	56.	56.	56.	56.	667.
TOTAL		1083.	1509.	1323.	673.	1310.	1195.	2458.	1382.	1173.	746.	1490.	1467.	15808.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-782.	-1509.	5593.	16.	-1310.	4793.	-2157.	-1382.	4950.	-746.	-1490.	3833.	9810.
=CURRENT CASH BALANCE	-782.	-1509.	5593.	16.	-1310.	4793.	-2157.	-1382.	4950.	-746.	-1490.	3833.	
+MONEY BORROWED	782.	1509.	0	0	1310.	0	2157.	1382.	0	746.	1490.	0	
-PAYMENT ON LOAN	0	0	4563.	0	0	3865.	0	0	4039.	0	0	2964.	
-INTEREST PAID AT .12	0	0	1030.	16.	0	928.	0	0	911.	0	0	869.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
33305.00LOAN OUT-JAN 1												
ACCUMULATED BORROWING	34087.	35596.	31033.	31033.	32343.	28478.	30635.	32016.	27978.	28724.	30214.	27249.
-UACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	333.	674.	0	294.	605.	0	285.	591.	0	280.	567.	0
33305.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	34420.	36270.	31033.	31327.	32948.	28478.	30919.	32608.	27978.	29004.	30781.	27249.

The detailed cash flow projections for year one through the average year for all systems are presented in the Appendix D, Tables 67 through 85. These cash flow projections assume that average annual prices remain constant over the years analyzed. However, the base price of $50 per head for feeder pigs is seasonally adjusted during the year based on the monthly price index presented in the Appendix. Withdrawals for family living expenses, labor, and income taxes are not included in the projected cash flows. These cash outflows depend on the individual and factors beyond the scope of this study. As including a simple labor charge of $5.00 per hour indicates, these items will increase the maximum debt levels and lengthen the debt repayment periods that are indicated by this study.

Figure 13 shows the monthly accumulated total debt for Systems B, C, D, and G for the first three years of operation. This provides a comparison of the maximum total debt for these four systems and the rate at which the debt is being retired from earnings generated. The maximum debt for B of $18,886 occurs in October of the first year, while the maximum accumulated debt of $24,955 for System C occurs in April of the second year. System D has a maximum accumulated debt of $40,855 in February of year two whereas the maximum for G of $82,047 happens in March of the second year. Systems F and H are not shown here because the level of debt, its timing and reduction are almost identical to System C. Likewise, System E resembles System C. System A has similar characteristics as B, except it shows little net reduction in debt from year to year.

Figure 13 Monthly Total Accumulated Debt Levels for Feeder Pig Production Systems B, C, D and G.

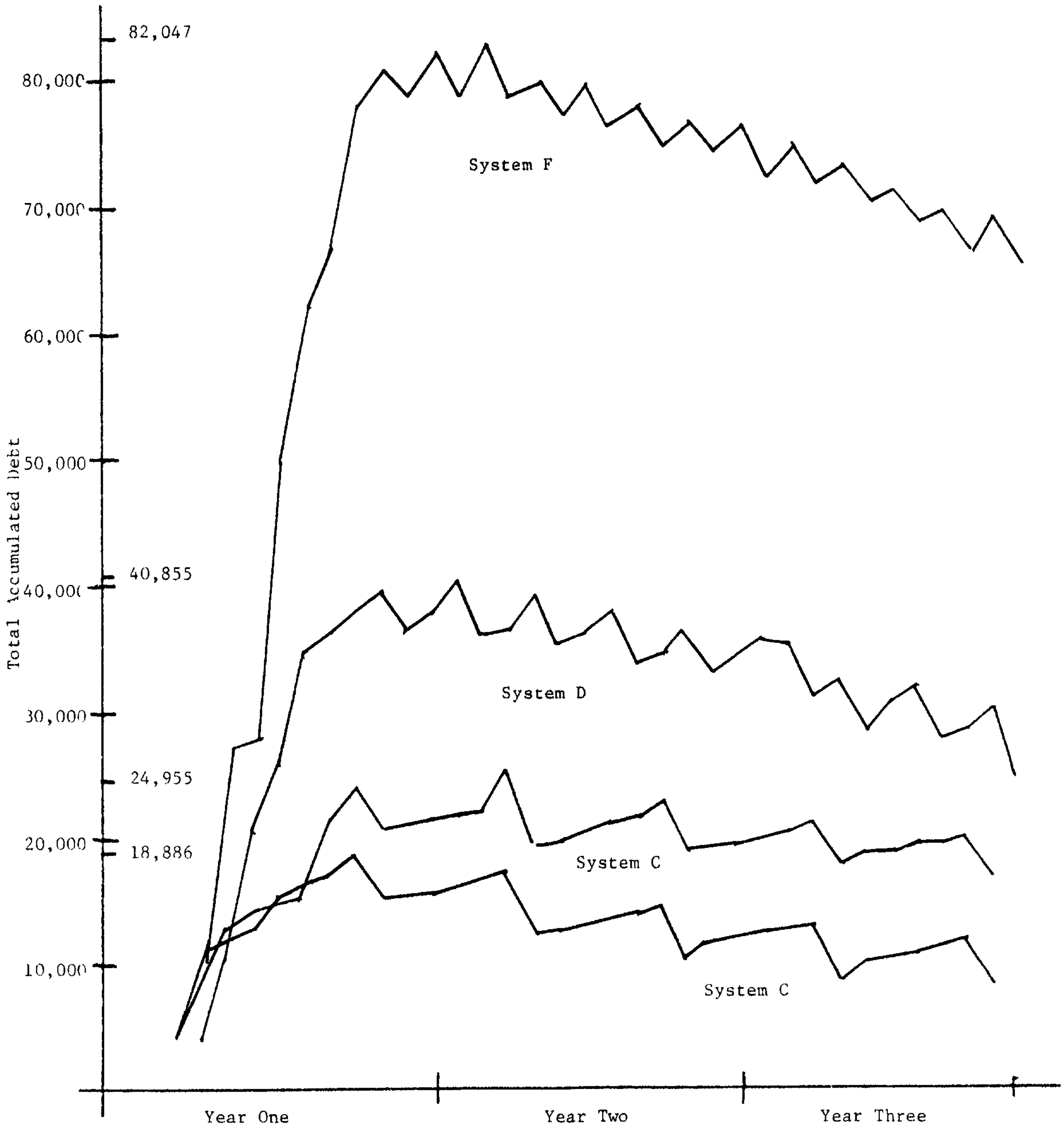


Table 29 includes an estimate of the time required to repay the total accumulated debt for the various systems, first if there is no charge for labor and then if labor costs $5.00 per hour. With no labor charge, and average annual prices held constant, System A is estimated to eliminate its debt after 17 years, whereas System B, the two litter pasture operation with its low investment, would retire its debt in 5¼ years. The other two litter systems (C and E) take 10 to 15 years to repay the accumulated debt. The four litter Systems D, F and H need 6-3/4, 6-1/2 and 7-1/2 years, respectively. The six litter system requires 8-1/2 years. With a $5.00 per hour charge for labor withdrawn, the shortest payback period is 10-3/4 years for System F. Systems A, C, and E are estimated to require 75 years or more to retire the debt when a $5.00 per hour labor charge is withdrawn. In these situations the cash difference is barely enough to cover annual interest cost leaving little money to apply to principal payments.

Table 29. Approximate Number of Years Required to Repay the Total Investment with Earnings From the System.

System	Labor Charge	With Labor Charges of $5.00 Per Hour
A	17	**
B	5-1/4	10-1/4
C	10	**
D	6-3/4	11-1/4
E	15	**
F	6-1/2	10-3/4
G	8-1/2	15
H	7-1/2	14

** Over 75 years

FARROW-TO-FINISH

The farrow-to-finish enterprise integrates both the production of feeder pigs and the feeding of the pigs produced to a slaughter weight of 220-230 pounds. The other types of swine production, the feeder pig operation and the finishing operation, can be thought of as components of farrow-to-finish operations.

The production systems used for farrow-to-finish enterprises can be described in terms of the housing used and the number of litters farrowed per year. Many production systems can be used for farrow-to-finish operations, these being combinations of the types of feeder pig operations and finishing operations. The feeder pig systems A through H analyzed in the previous section of this report provide the basis for the farrow-to-finish systems examined here. Finishing facilities are added to each of these feeder pig systems to develop the following farrow-to-finish operations:

System A - A pasture operation with 16 gilts farrowing in portable A-frame buildings once per year. Portable gestation facilities are used to house breeding stock. Hogs are finished in a remodeled permanent building.

System B - A pasture operation with 16 sows farrowing twice per year in portable A-frame buildings. Portable buildings are also used for nursery and gestation facilities. Finishing is in a remodeled building such as an old utility shed or garage.

System C - An uninsulated remodeled building, such as a utility building or garage, is used for two farrowings per year. An open front remodeled shed is used to house the breeding herd. Another remodeled building is used to finish slaughter hogs.

System D - The remodeled farrowing building has insulation and mechanical ventilation added to allow farrowing over more months of the year. Four litters are produced per year. The breeding herd and hogs being finished are housed in new open front sheds.

System E - A remodeled uninsulated dairy barn is used for farrowing two litters per year. A new open front shed is used to house the breeding herd, and a remodeled building is used to finish hogs.

System F - Insulation and mechanical ventilation are added to the remodeled dairy barn used in System E to allow four farrowings per year. New open front sheds are used for gestation and finishing facilities.

System G - The remodeled dairy barn with insulation and mechanical ventilation for farrowing used in system F provides farrowing facilities. A nursery and concrete manure storage are added so the building can be used for six litters per year. The breeding herd is housed in new modified open front facilities. Finishing is done in a new open front shed. shed.

System H - A new pole building is used for farrowing and houses the nursery unit, which is large enough to hold the pigs during the early growing phase during winter months. The breeding herd is housed in another new pole building. A new open front shed is used for finishing the four litters produced annually.

Animal Flow

Given that the same facilities are used for farrowing and gestation in the farrow-to-finish operations as in the feeder pig systems, and assuming the same breeding schedules and management level, it follows that the number of pigs weaned per litter should also be the same. The following weaning rates used for the farrow-to-finish systems are identical to those for the corresponding feeder pig systems:

System A - 7.5 pigs weaned per litter

System B - 7.0 pigs weaned per litter

System C - 7.0 pigs weaned per litter

System D - 7.3 pigs weaned per litter

System E - 7.0 pigs weaned per litter

System F - 7.3 pigs weaned per litter

System G - 7.5 pigs weaned per litter

System H - 7.3 pigs weaned per litter

These litter sizes are for the normal herds made up of both sows and gilts. The all gilt herds used during the first year of operation were assumed to average .7 of a pig less.

Assuming 90 percent and 80 percent conception rates for sows and gilts, respectively, (except during July and August when these rates are reduced 10 percent), and a culling rate of 20 percent, results in similar animal flows for the breeding herds in the farrow-to-finish systems as were shown in Figure 3 for the feeder pig systems. With these systems, however, the 40 pound feeder pigs are moved to the finishing facilities where they begin the growing-finishing process. A 3 percent death loss is assumed during the growing and finishing period. The animal flows shown in Figures 14, 15, 16 and 17 for the normal years of operation are based on these assumptions. Table 30 gives the estimated number of animals sold annually for each of the eight systems.

Figure 14. Average Year of Operation for Farrow-to-Finish Systems A and B

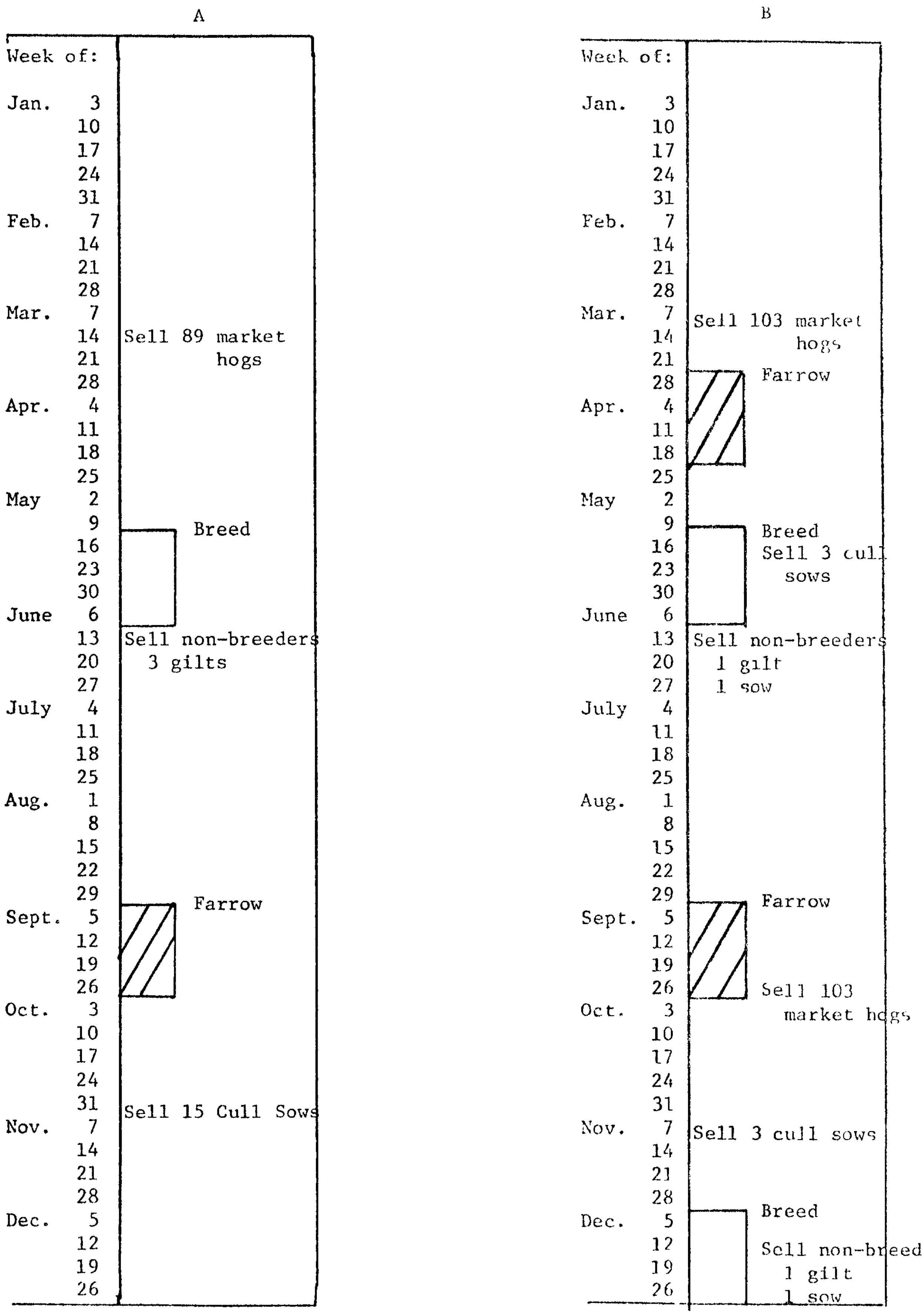


Figure 15. Average Year of Operation for Farrow-to-Finish Systems C and E

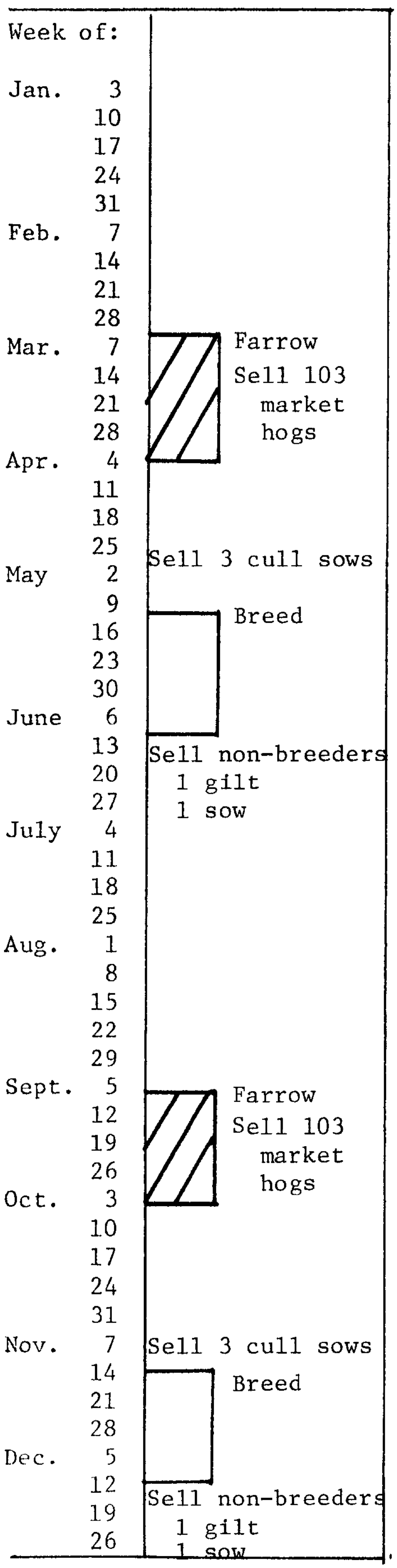


Figure 16. Average Year of Operation for Farrow-to-Finish Systems D, F and H

Week of:		Groups A	Groups B
Jan.	3	Sell non-breeders 1 gilt 1 sow	Farrow
	10		
	17		
	24		
	31		
Feb.	7		
	14		
	21		
	28		Sell 3 cull sows
Mar.	7		Breed
	14		
	21	Sell 107 market hogs	
	28		
Apr.	4	Farrow	
	11		Sell non-breeders 1 gilt 1 sow
	18		
	25		
May	2		
	9		
	16		
	23		
	30	Sell 3 cull sows	
June	6	Breed	
	13		
	20		Sell 107 market hogs
	27		
July	4		Farrow
	11	Sell non-breeders 1 gilt 1 sow	
	18		
	25		
Aug.	1		
	8		
	15		
	22		
	29		Sell 3 cull sows
Sept.	5		Breed
	12		
	19	Sell 107 market hogs	
	26		
Oct.	3	Farrow	
	10		Sell non-breeders 1 gilt 1 sow
	17		
	24		
	31		
Nov.	7		
	14		
	21		
	28	Sell 3 cull sows	
Dec.	5	Breed	
	12		
	19		Sell 107 market hogs
	26		

Figure 17. Average Year of Operation for Farrow-to-Finish System G

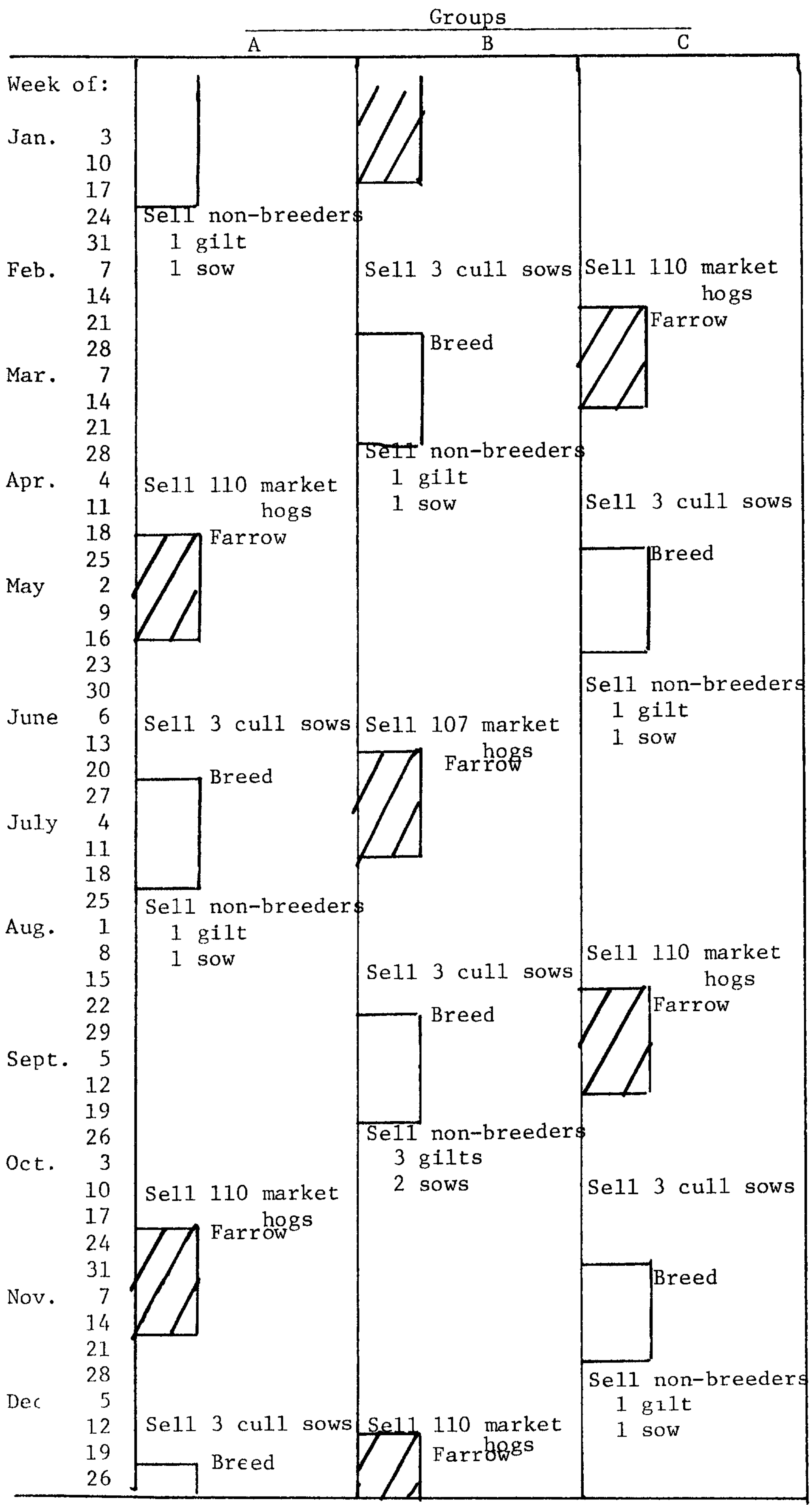


Table 30. Number of Animals Sold Annually

System	Slaughter Hogs	Cull Sows	Nonbred Sows	Nonbred Gilts	Boars
A	89	15	-	3	3
B	206	6	2	2	3
C	206	6	2	2	3
D	428	12	4	4	3
E	206	6	2	2	3
F	428	12	4	4	3
G	657	18	8	7	3
H	428	12	4	4	3

Building Systems and Investment Costs

There are many types of building facilities that can be employed to finish hogs in a farrow-to-finish operation. The appendix contains a detailed description and an itemized list of materials for five alternative finishing facilities ranging from very low to high investment facilities that were considered in this study. Briefly they are:

Finishing Facility 1 is a pasture system, with 130 hog capacity. Portable sun shades allow for finishing one group of hogs per year during the summer months.

Finishing Facility 2 has a remodeled building or garage with 130 hog capacity. This building is uninsulated and has natural ventilation.

Finishing Facility 3 is a new open front shed with concrete lot and a capacity of 280 hogs.

Finishing Facility 4 is a modified open front building with partial pit and has a capacity of 280 hogs.

Finishing Facility 5 is a totally confined structure with partially slotted floor and flush system to move manure to lagoon storage and treatment with a 440 hog capacity.

The objective of this study is to develop low to medium investment hog production systems with relatively low energy requirements for heat and ventilation. Furthermore, the facilities are to be of simplistic design so that most of the construction and remodeling can be done by the owner-operator from readily available materials and supplies.

In addition, all facilities must: (1) provide the space requirements as developed by Midwest Planning Service as given in Table 5, and (2) be designed to allow achievement of the performance standards with average or above average management. Finishing Facilities 4 and 5 with their high investment and complex technology do not meet these requirements for low investment farrow-to-finish operations. On the other hand Finishing Facilities 1, the pasture operation, cannot be used because it does not allow for finishing during the winter months, which all the farrowing operations used in this study require. Thus, Finishing Facilities 2 and 3 are combined with the farrowing, gestation and nursery facilities for feeder pig systems A through H to form the farrow-to-finish systems analyzed in this study. Finishing Facility 2 has a capacity for 130 hogs and is used for the one and two litter farrow-to-finish systems. Finishing Facility 3 is added as a component of the systems that farrow 4 and 6 litters per year. Table 31 describes these two facilities, and gives the investment cost and labor requirements for remodeling and construction. The resulting investment costs and construction labor requirements for farrow-to-finish systems A through H are given in Table 32.

Table 31. The Investment Costs and Labor Required to Construct Finishing Facilities Used in the Farrow-to-Finish Swine Systems.

Finishing Facilities 2 - Remodeled Building, 130 hog capacity. Insulated, naturally ventilated building with concrete floor.

Item	Size and Description	Units	Cost Per Unit	Total
Remodel Building[1]	36' x 48'	1728 $ft.^2$		1,782
Concrete and Reinforcing		1728 $ft.^2$		1,031
Feeders	8 hole fence line	4	250	1,000
Waterers	2 hole	4	25	100
TOTAL				3,913

TOTAL HOURS OF LABOR FOR CONSTRUCTION - 72 hours

Finishing Facilities 3 - New open front shed with lot, 280 hog capacity.

Item				
Open Front Building[2]	16' x 96'	1536 $ft.^2$		4,544
Concrete and Reinforcing	56' x 96'	5376 $ft.^2$	\$ .58/$ft.^2$	3,127
Pen Dividers	Wooden planks			562
Fencing	Hog panels	352 ft.	.80/ft	282
	Posts	23	5.00	115
Feeders	10 hole feeder	3	500	1,500
Waterers	2 hole frost proof	3	100	300
Feed System	14.7 ton			2,808
TOTAL				13,238

TOTAL HOURS OF LABOR FOR CONSTRUCTION - 480 hours

1/ Includes electrical, plumbing and pen partitions.

2/ Includes construction materials, plumbing, and electrical.

Table 32. Total Investment Cost and Labor Requirement for Construction of Farrow-to-Finish Systems

System	Total Investment in Machinery, Equipment and Facilities	Total Hours of Labor Required for Construction
A	$12,590	238
B	14,162	302
C	18,444	272
D	37,849	944
E	21,416	728
F	37,616	864
G	72,040	1,008
H	42,242	1,080

Enterprise Budgets

The enterprise budgets for the farrow-to-finish operations shown in Tables 33 through 40 are based on the average year production calendars shown in Figures 14 through 17. The gross receipts assume an average annual price of $52.00 per hundredweight for a 220 pound market hog. This price is seasonally adjusted for each marketing month based on the seasonal index presented in Appendix C, Table 66. This index was calculated using monthly prices from seven major U.S. hog markets [1].

Operating cost is the major cost component of the farrow-to-finish operations, and feed costs are the largest portion of operating cost. The production calendar provides the information on annual animal numbers for the various systems. The feeding rates for the breeding herd of the farrow-to-finish systems are identical to those used with the feeder pig production

TABLE 33 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FARROW-TO-FINISH, SYSTEM A IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Cwt Pork Sold
1.	GROSS RECEIPTS						
	SLAUGHTER HOGS	2.20	CWT.	51.17	89.00	10018.69	
	GILT N.B.	2.90	CWT.	48.00	3.00	417.60	
	SOW CULL	3.70	CWT.	44.00	15.00	2442.00	
	BOAR	4.50	CWT.	39.00	3.00	526.50	
	TOTAL					13404.79	49 01
2.	OPERATING COSTS						
	CORN		BU.	3.00	1672.30	5016.90	
	SOYBEAN MEAL		CWT.	14.50	169.30	2454.85	
	MINERALS		LBS.	.05	3375.10	168.76	
	OATS		LBS.	.07	62.60	4.38	29 04
	WHEAT BRAN		LBS.	.05	672.00	33.60	
	SUGAR		LBS.	.17	31.30	5.32	
	GRIND & MIX		TONS	4.50	57.50	258.75	
	VET & MED		DOL.	1.00	178.00	178.00	
	ELECTRICITY		KWH	.05	2415.00	132.82	
	INS. AND TAXES		DOL.	1.00	115.00	115.00	
	MKTG & HAULING		DOL.	1.00	350.00	350.00	
	MISCL EXPENSE		DOL.	1.00	306.00	306.00	13 72
	YOUNG BOAR		HD.	450.00	3.00	1350.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			237.45	
	MACHINERY(FUEL,LUBE,REP)		DOL.			13.36	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			718.70	
	INTEREST ON OPER.CAP.,		DOL.			351.39	
	TOTAL OPERATING COSTS					11695.28	42 76
3.	INCOME ABOVE OPERATING COSTS					1709.51	6 25
4.	OWNERSHIP COSTS						
	INT. ON LIVESTOCK CAPITAL		DOL.	.12	3200.00	384.00	
	INT. ON EQUIPMENT		DOL.	.12	6295.00	755.40	
	INT. ON MACHINERY		DOL.	.12	752.12	90.25	
	DEPR. ON EQUIPMENT		DOL.			1772.08	
	DEPR. ON MACHINERY		DOL.			89.62	
	INS., TAXES ON EQPT., LVSTK., AND MACH.		DOL.			124.43	
	TOTAL OWNERSHIP COSTS					3215.79	11 76
5.	TOTAL COSTS SHOWN					14911.07	54 52
6.	NET RETURNS ABOVE COSTS SHOWN					-1506.28	- 5 51

1 LITTER-16 GILTS FARROWING IN PORTABLE A-FRAME BUILDINGS. PORTABLE GESTATION FACILITIES. REMODELED PERMANENT BUILDING FOR FINISHING.

TABLE 34 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FARROW-TO-FINISH, SYSTEM B IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Cwt Pork Sold
1.	GROSS RECEIPTS						
	SLAUGHTER HOGS	2.20	CWT.	51.17	103.00	11594.67	
	SLAUGHTER HOGS	2.20	CWT.	52.62	103.00	11924.60	
	GILT N.B.	2.90	CWT.	48.00	2.00	278.40	
	SOW N.B.	3.60	CWT.	45.00	2.00	324.00	
	SOW CULL	3.70	CWT.	44.00	6.00	976.80	
	BOAR	4.50	CWT.	39.00	3.00	526.50	
	TOTAL					25624.97	51 06
2.	OPERATING COSTS						
	CORN		BU.	3.00	3122.60	9367.80	
	SOYBEAN MEAL		CWT.	14.50	308.00	4466.00	
	MINERALS		LBS.	.05	5850.70	292.53	
	OATS		LBS.	.07	125.20	8.76	29 24
	WHEAT BRAN		LBS.	.05	1120.00	56.00	
	SUGAR		LBS.	.17	62.60	10.64	
	GRIND & MIX		TONS	4.50	105.00	472.50	
	VET & MED		DOL.	1.00	347.00	347.00	
	ELECTRICITY		KWH	.05	2695.00	148.23	
	INS. AND TAXES		DOL.	1.00	215.00	215.00	
	MKTG & HAULING		DOL.	1.00	628.00	628.00	
	MISCL EXPENSE		DOL.	1.00	306.00	306.00	9 41
	YOUNG BOAR		HD.	450.00	3.00	1350.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			377.39	
	MACHINERY(FUEL,LUBE,REP)		DOL.			23.61	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			808.53	
	INTEREST ON OPER.CAP.,		DOL.			521.16	
	TOTAL OPERATING COSTS					19399.17	38 65
3.	INCOME ABOVE OPERATING COSTS					6225.80	12 40
4.	OWNERSHIP COSTS						
	INT. ON LIVESTOCK CAPITAL		DOL.	.12	4260.00	511.20	
	INT. ON EQUIPMENT		DOL.	.12	7081.00	849.72	
	INT. ON MACHINERY		DOL.	.12	1119.41	134.33	
	DEPR. ON EQUIPMENT		DOL.			1996.65	
	DEPR. ON MACHINERY		DOL.			133.60	
	INS.,TAXES ON EQPT., LVSTK., AND MACH.		DOL.			145.57	
	TOTAL OWNERSHIP COSTS					3771.07	7 51
5.	TOTAL COSTS SHOWN					23170.24	46 17
6.	NET RETURNS ABOVE COSTS SHOWN					2454.73	4 89

2 LITTER-16 SOWS FARROWING IN PORTABLE A-FRAME BUILDINGS. PORTABLE NURSERY AND GESTATION FACILITIES. REMODELED PERMANENT BUILDING FOR FINISHING.

TABLE 35 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FARROW-TO-FINISH, SYSTEM C IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Cwt Pork Sold
1.	GROSS RECEIPTS						
	SLAUGHTER HOGS	2.20	CWT.	51.17	103.00	11594.67	
	SLAUGHTER HOGS	2.20	CWT.	52.62	103.00	11924.60	
	GILT N.B.	2.90	CWT.	48.00	2.00	278.40	
	SOW N.B.	3.60	CWT.	45.00	2.00	324.00	
	SOW CULL	3.70	CWT.	44.00	6.00	976.80	
	BOAR	4.50	CWT.	39.00	3.00	526.50	
	TOTAL					25624.97	51.06
2.	OPERATING COSTS						
	CORN		BU.	3.00	3176.10	9528.30	
	SOYBEAN MEAL		CWT.	14.50	299.10	4336.95	
	MINERALS		LBS.	.05	6328.40	316.42	
	OATS		LBS.	.07	125.20	8.76	29 38
	WHEAT BRAN		LBS.	.05	1120.00	56.00	
	SUGAR		LBS.	.17	62.60	10.64	
	GRIND & MIX		LBS.	4.50	108.50	488.25	
	VET & MED		DOL.	1.00	322.00	322.00	
	ELECTRICITY		KWH	.05	8984.00	494.12	
	INS. AND TAXES		DOL.	1.00	185.00	185.00	
	MKTG & HAULING		DOL.	1.00	629.50	629.50	
	MISCL EXPENSE		DOL.	1.00	342.00	342.00	10 84
	YOUNG BOAR		HD.	450.00	3.00	1350.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			931.37	
	MACHINERY(FUEL,LUBE,REP)		DOL.			41.01	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			585.36	
	INTEREST ON OPER.CAP.,		DOL.			560.39	
	TOTAL OPERATING COSTS					20186.08	40.22
3.	INCOME ABOVE OPERATING COSTS					5438.89	10 84
4.	OWNERSHIP COSTS						
	INT. ON LIVESTOCK CAPITAL		DOL.	.12	4260.00	511.20	
	INT. ON EQUIPMENT		DOL.	.12	6472.00	776.64	
	INT. ON MACHINERY		DOL.	.12	1708.55	205.03	
	DEPR. ON EQUIPMENT		DOL.			1822.65	
	DEPR. ON MACHINERY		DOL.			201.97	
	INS.,TAXES ON EQPT., LVSTK., AND MACH.		DOL.			139.36	
	TOTAL OWNERSHIP COSTS					3656.85	7 29
5.	TOTAL COSTS SHOWN					23842.93	47 51
6.	NET RETURNS ABOVE COSTS SHOWN					1782.04	3 55

2 LITTER-16 SOWS A REMODELED UNINSULATED BUILDING FOR FARROWING AND NURSERY. OPEN FRONT REMODELED SHED FOR GESTATION. REMODELED BUILDING FOR FINISHING.

TABLE 36 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FARROW-TO-FINISH, SYSTEM D IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Cwt Pork Sold
1.	GROSS RECEIPTS						
	SLAUGHTER HOGS	2.20	CWT.	51.17	107.00	12044.95	
	SLAUGHTER HOGS	2.20	CWT.	51.95	107.00	12228.56	
	SLAUGHTER HOGS	2.20	CWT.	52.62	107.00	12387.69	
	SLAUGHTER HOGS	2.20	CWT.	50.34	107.00	11849.09	
	GILT N.B.	2.90	CWT.	48.00	4.00	556.80	
	SOW N.B.	3.60	CWT.	45.00	4.00	648.00	
	SOW CULL	3.70	CWT.	44.00	12.00	1953.60	
	BOAR	4.50	CWT.	39.00	3.00	526.50	
	TOTAL					52195.19	50 90
2.	OPERATING COSTS						
	CORN		BU.	3.00	6393.00	19179.00	29 27
	SOYBEAN MEAL		CWT.	14.50	625.60	9071.20	
	MINERALS		LBS.	.05	12600.20	630.01	
	OATS			.07	261.40	18.30	
	WHEAT BRAN		LBS.	.05	2293.30	114.66	
	SUGAR		LBS.	.17	130.70	22.22	
	GRIND & MIX		TONS	4.50	219.00	985.50	
	VET & MED		DOL.	1.00	689.00	689.00	9.51
	INS. AND TAXES		DOL.	1.00	380.00	380.00	
	MKTG & HAULING		DOL.	1.00	1289.50	1289.50	
	LP GAS		GAL.	1.00	664.00	664.00	
	ELECTRICITY		KWH	.05	20500.00	1127.50	
	MISCL EXPENSE		DOL.	1.00	378.00	378.00	
	YOUNG BOAR		HD.	450.00	3.00	1350.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			1804.24	
	MACHINERY(FUEL,LUBE,REP)		DOL.			74.33	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			944.78	
	INTEREST ON OPER.CAP.,		DOL.			1052.73	
	TOTAL OPERATING COSTS					39774.97	38.79
3.	INCOME ABOVE OPERATING COSTS					12420.22	12 11
4.	OWNERSHIP COSTS						
	INT. ON LIVESTOCK CAPITAL		DOL.	.12	7620.00	914.40	
	INT. ON EQUIPMENT		DOL.	.12	16219.50	1946.34	
	INT. ON MACHINERY		DOL.	.12	3171.56	380.59	
	DEPR. ON EQUIPMENT		DOL.			3238.96	
	DEPR. ON MACHINERY		DOL.			374.21	
	INS.,TAXES ON EQPT., LVSTK., AND MACH.		DOL.			324.26	
	TOTAL OWNERSHIP COSTS					7178.76	7 00
5.	TOTAL COSTS SHOWN					46953.73	45 79
6.	NET RETURNS ABOVE COSTS SHOWN					5241.46	5 11

4 LITTER-32 SOWS A REMODELED INSULATED AND VENTILATED BUILDING FOR FARROWING NEW OPEN FRONT SHED FOR GESTATIO AND FOR FINISHING.

TABLE 37 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FARROW-TO-FINISH, SYSTEM E IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Cwt Pork Sold
1.	GROSS RECEIPTS						
	SLAUGHTER HOGS	2.20	CWT.	51.17	103.00	11594.67	
	SLAUGHTER HOGS	2.20	CWT.	52.62	103.00	11924.60	
	GILT N.B.	2.90	CWT.	48.00	2.00	278.40	
	SOW N.B.	3.60	CWT.	45.00	2.00	324.00	
	SOW CULL	3.70	CWT.	44.00	6.00	976.80	
	BOAR	4.50	CWT.	39.00	3.00	526.50	
	TOTAL					25624.97	51.06
2.	OPERATING COSTS						
	CORN		BU.	3.00	3176.10	9528.30	
	SOYBEAN MEAL		CWT.	14.50	299.10	4336.95	
	MINERALS		LBS.	.05	6328.40	316.42	
	OATS		LBS.	.07	125.20	8.76	29 38
	WHEAT BRAN		LBS.	.05	1120.00	56.00	
	SUGAR		LBS.	.17	62.60	10.64	
	GRIND & MIX		LBS.	4.50	108.50	488.25	
	VET & MED		DOL.	1.00	347.00	347.00	
	ELECTRICITY		KWH	.05	6604.00	363.22	
	MKTG & HAULING		DOL.	1.00	629.50	629.50	
	INS. AND TAXES		DOL.	1.00	168.00	168.00	
	MISCL EXPENSE		DOL.	1.00	330.00	330.00	10 54
	YOUNG BOAR		HD.	450.00	3.00	1350.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			931.37	
	MACHINERY(FUEL,LUBE,REP)		DOL.			41.01	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			568.86	
	INTEREST ON OPER.CAP.,		DOL.			563.40	
	TOTAL OPERATING COSTS					20037.69	39 92
3.	INCOME ABOVE OPERATING COSTS					5587.28	11 13
4.	OWNERSHIP COSTS						
	INT. ON LIVESTOCK CAPITAL		DOL.	.12	4260.00	511.20	
	INT. ON EQUIPMENT		DOL.	.12	7958.00	954.96	
	INT. ON MACHINERY		DOL.	.12	1708.55	205.03	
	DEPR. ON EQUIPMENT		DOL.			1952.58	
	DEPR. ON MACHINERY		DOL.			201.97	
	INS., TAXES ON EQPT., LVSTK., AND MACH.		DOL.			163.14	
	TOTAL OWNERSHIP COSTS					3988.88	7 95
5.	TOTAL COSTS SHOWN					24026.56	47 37
6.	NET RETURNS ABOVE COSTS SHOWN					1598.40	3 18

2 LITTER-16 SOWS REMODELED UNINSULATED DAIRY BARN FOR FARROWING AND NURSERY. NEW OPEN FRONT SHED FOR GESTATION. REMODELED BUILDING FOR FINISHING.

TABLE 38 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FARROW-TO-FINISH, SYSTEM F IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Cwt Pork Sold
1.	GROSS RECEIPTS						
	SLAUGHTER HOGS	2.20	CWT.	51.17	107.00	12044.95	
	SLAUGHTER HOGS	2.20	CWT.	51.95	107.00	12228.56	
	SLAUGHTER HOGS	2.20	CWT.	52.62	107.00	12387.69	
	SLAUGHTER HOGS	2.20	CWT.	50.34	107.00	11849.09	
	GILT N.B.	2.90	CWT.	48.00	4.00	556.80	
	SOW N.B.	3.60	CWT.	45.00	4.00	648.00	
	SOW CULL	3.70	CWT.	44.00	12.00	1953.60	
	BOAR	4.50	CWT.	39.00	3.00	526.50	
	TOTAL					52195.19	50.90
2.	OPERATING COSTS						
	CORN		BU.	3.00	6393.00	19179.00	
	SOYBEAN MEAL		CWT.	14.50	625.60	9071.20	
	MINERALS		LBS.	.05	12600.20	630.01	
	OATS		LBS.	.07	261.40	18.30	29.27
	WHEAT BRAN		LBS.	.05	2293.30	114.66	
	SUGAR		LBS.	.17	130.70	22.22	
	GRIND & MIX		TONS	4.50	219.00	985.50	
	VET & MED		DOL.	1.00	689.00	689.00	
	INS. AND TAXES		DOL.	1.00	328.00	328.00	
	MKTG & HAULING		DOL.	1.00	1289.50	1289.50	
	LP GAS		GAL.	1.00	664.00	664.00	
	ELECTRICITY		KWH	.05	18116.00	996.38	
	MISCL EXPENSE		DOL.	1.00	396.00	396.00	9 36
	YOUNG BOAR		HD.	450.00	3.00	1350.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			1804.24	
	MACHINERY(FUEL,LUBE,REP)		DOL.			74.33	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			957.27	
	INTEREST ON OPER.CAP.,		DOL.			1048.72	
	TOTAL OPERATING COSTS					39618.34	38 63
3.	INCOME ABOVE OPERATING COSTS					12576.85	12.26
4.	OWNERSHIP COSTS						
	INT. ON LIVESTOCK CAPITAL		DOL.	.12	7620.00	914.40	
	INT. ON EQUIPMENT		DOL.	.12	16103.00	1932.36	
	INT. ON MACHINERY		DOL.	.12	3171.56	380.59	
	DEPR. ON EQUIPMENT		DOL.			3205.68	
	DEPR. ON MACHINERY		DOL.			374.21	
	INS.,TAXES ON EQPT., LVSTK., AND MACH.		DOL.			322.40	
	TOTAL OWNERSHIP COSTS					7129.63	6 95
5.	TOTAL COSTS SHOWN					46747.97	45 59
6.	NET RETURNS ABOVE COSTS SHOWN					5447.22	5 31

4 LITTER-32 SOWS REMODELED INSULATED VENTILATED DAIRY BARN FOR FARROWING AND NURSERY. NEW OPEN FRONT SHED FOR GESTATION AND FOR FINISHING.

TABLE 39 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FARROW-TO-FINISH, SYSTEM G IN AVERAGE YEAR OF PRODUCTION.

ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Cwt Pork Sold
1. GROSS RECEIPTS						
SLAUGHTER HOGS	2.20	CWT.	54.86	110.00	13276.12	
SLAUGHTER HOGS	2.20	CWT.	48.78	110.00	11803.79	
SLAUGHTER HOGS	2.20	CWT.	51.95	107.00	12228.56	
SLAUGHTER HOGS	2.20	CWT.	56.11	110.00	13578.14	
SLAUGHTER HOGS	2.20	CWT.	50.96	110.00	12332.32	
SLAUGHTER HOGS	2.20	CWT.	50.34	110.00	12181.31	
GILT N.B.	2.90	CWT.	48.00	7.00	974.40	
SOW N.B.	3.60	CWT.	45.00	8.00	1296.00	
SOW CULL	3.70	CWT.	44.00	18.00	2930.40	
BOAR	4.50	CWT.	39.00	3.00	526.50	
TOTAL					81127.54	51 52
2. OPERATING COSTS						
CORN		BU.	3.00	9707.20	29121.60	
SOYBEAN MEAL		CWT.	14.50	954.30	13837.35	
MINERALS		LBS.	.05	19124.50	956.23	
OATS		LBS.	.07	400.40	28.03	28 99
WHEAT BRAN		LBS.	.05	3482.00	174.10	
SUGAR		LBS.	.17	200.20	34.03	
GRIND & MIX		TONS	4.50	331.20	1490.40	
VET & MED		DOL.	1.00	942.00	942.00	
INS. AND TAXES		DOL.	1.00	512.00	512.00	
MKTG & HAULING		DOL.	1.00	1969.50	1969.50	
LP GAS		GAL.	1.00	851.00	851.00	
ELECTRICITY		KWH	.05	24240.00	1333.20	
MISCL EXPENSE		DOL.	1.00	414.00	414.00	8 1.
YOUNG BOAR		HD.	450.00	3.00	1350.00	
TRACTORS(FUEL,LUBE,REP)		DOL.			1761.32	
MACHINERY(FUEL,LUBE,REP)		DOL.			176.86	
EQUIPMENT(FUEL,LUBE,REP)		DOL.			1920.43	
INTEREST ON OPER.CAP.,		DOL.			1586.39	
TOTAL OPERATING COSTS					58458.44	37 1
3. INCOME ABOVE OPERATING COSTS					22669.10	14 4
4. OWNERSHIP COSTS						
INT. ON LIVESTOCK CAPITAL		DOL.	.12	10980.00	1317.60	
INT. ON EQUIPMENT		DOL.	.12	30315.00	3637.80	
INT. ON MACHINERY		DOL.	.12	5272.79	632.73	
DEPR. ON EQUIPMENT		DOL.			6541.25	
DEPR. ON MACHINERY		DOL.			643.04	
INS., TAXES ON EQPT., LVSTK., AND MACH.		DOL.			582.56	
TOTAL OWNERSHIP COSTS					13354.98	8 .
5. TOTAL COSTS SHOWN					71913.42	45
6. NET RETURNS ABOVE COSTS SHOWN					9314.12	5 9.

c LITTER-48 SOWS REMODELED INSULATED VENTILATED DAIRY BARN FOR FARROWING AND NURSERY WITH MANURE STORAGE. NEW MODIFIED OPEN FRONT SHED FOR GESTATION. NEW OPEN FRONT SHED FOR FINISHING.

TABLE 40 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR FARROW-TO-FINISH, SYSTEM H IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Cwt Pork Sold
1.	GROSS RECEIPTS						
	SLAUGHTER HOGS	2.20	CWT.	51.17	107.00	12044.95	
	SLAUGHTER HOGS	2.20	CWT.	51.95	107.00	12228.56	
	SLAUGHTER HOGS	2.20	CWT.	52.62	107.00	12387.69	
	SLAUGHTER HOGS	2.20	CWT.	50.34	107.00	11849.09	
	GILT N.B.	2.90	CWT.	48.00	4.00	556.80	
	SOW N.B.	3.60	CWT.	45.00	4.00	648.00	
	SOW CULL	3.70	CWT.	44.00	12.00	1953.60	
	BOAR	4.50	CWT.	39.00	3.00	526.50	
	TOTAL					52195.19	50 90
2.	OPERATING COSTS						
	CORN		BU.	3.00	6393.00	19179.00	
	SOYBEAN MEAL		CWT.	14.50	625.60	9071.20	
	MINERALS		LBS.	.05	12600.20	630.01	
	OATS		LBS.	.07	261.40	18.30	29 27
	WHEAT BRAN		LBS.	.05	2293.30	114.66	
	SUGAR		LBS.	.17	130.70	22.22	
	GRIND & MIX		TONS	4.50	219.00	985.50	
	VET & MED		DOL.	1.00	689.00	689.00	
	INS. AND TAXES		DOL.	1.00	328.00	328.00	
	MKTG & HAULING		DOL.	1.00	1289.50	1289.50	
	LP GAS		GAL.	1.00	664.00	664.00	
	ELECTRICITY		KWH	.05	18116.00	996.38	
	MISCL EXPENSE		DOL.	1.00	396.00	396.00	9 31
	YOUNG BOAR		HD.	450.00	3.00	1350.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			1804.24	
	MACHINERY(FUEL,LUBE,REP)		DOL.			74.33	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			906.80	
	INTEREST ON OPER.CAP.,		DOL.			1047.28	
	TOTAL OPERATING COSTS					39566.41	38 58
3.	INCOME ABOVE OPERATING COSTS					12628.78	12 31
4.	OWNERSHIP COSTS						
	INT. ON LIVESTOCK CAPITAL		DOL.	.12	7620.00	914.40	
	INT. ON EQUIPMENT		DOL.	.12	18415.50	2209.86	
	INT. ON MACHINERY		DOL.	.12	3171.56	380.59	
	DEPR. ON EQUIPMENT		DOL.			3069.25	
	DEPR. ON MACHINERY		DOL.			374.21	
	INS.,TAXES ON EQPT., LVSTK., AND MACH.		DOL.			359.40	
	TOTAL OWNERSHIP COSTS					7307.70	7 13
5.	TOTAL COSTS SHOWN					46874.12	45 71
6.	NET RETURNS ABOVE COSTS SHOWN					5321.08	5 19

4 LITTER-32 SOWS NEW POLE BUILDING FOR FARROWING AND NURSERY.
NEW POLE BUILDING FOR GESTATION. NEW OPEN FRONT SHED FOR FINISHING.

systems given in Table 3. The feeding rates and days on feed for the slaughter hogs as they go through growing and finishing are:

Grower ration from 40-110 pounds	4.3 lbs./day - 50 days
(winter)	5.3 lbs./day
Finishing ration from 110-220 pounds	6.5 lbs./day - 65 days
(winter)	7.5 lbs./day

These feeding rates and animal numbers combined with the rations presented in Table 2 provide the basis to calculate the amounts of corn, 48.5% soybean meal and feed required annually shown in Table 41. Using the projected price of $3.00 per bushel for corn and $14.50 per cwt. for soybean meal yields the feed cost indicated in the enterprise budgets.

Three types of energy consumption are estimated as operating costs for the low to medium investment hog operations. They are: 1) electricity for lighting and ventilation; 2) L.P. gas for space heating; and 3) gasoline and diesel fuel for manure handling and disposal.

The levels of electricity consumed listed in Table 42 are based on KWH usage per month for the various electrical equipment, lights and ventilation fans used in each system. The estimated requirements of L.P. gas are based on the animal numbers, the ventilation rates, expected building heat loss, desired inside temperature and expected outdoor temperature for the various systems. The gallons of gasoline and diesel fuel are functions of the level of manure produced by the hogs and the type of manure handling system employed by a particular system. Table 42 provides the estimated annual cost of energy for the farrow-to-finish systems.

The other operating cost items are based on farm accounts, research findings and current prices. These cost items are listed on the individual

Table 41. Annual Feed Requirements for the Farrow-to-Finish System.

System	Bushels of Corn	Cwt. of 48.5% Soybean Meal	Tons of Total Feed
A	1,672.3	169.3	57.5
B	3,122.6	308.0	105.0
C	3,176.1	299.1	108.5
D	6,393.0	625.6	219.0
E	3,176.1	299.1	108.5
F	6,393.0	625.6	219.0
G	9,707.2	954.3	331.2
H	6,393.0	625.6	219.0

Table 41. Energy Requirements Per Year for the Farrow-to-Finish Systems.

System	KWH of Electricity	Gal. of L.P. Gas for Heating 1/	Gallons of Fuel	Annual System Cost 2/	Cost Per Cwt. Pork Sold
A	2,415	--	119	$ 314.53	$1.15
B	2,695	--	189	438.03	.87
C	8,984	--	472	1,233.82	2.46
D	20,500	664	915	3,227.40	3.15
E	6,604	--	472	1,102.92	2.20
F	18,116	664	915	3,096.28	3.02
G	24,240	851	885	3,548.90	2.25
H	18,116	664	915	3,096.28	3.02

1/ Other forms of energy, such as natural gas, may be used. One gallon of L.P. gas was assumed to yield 73,600 BTU.

2/ Assumed prices:

Electricity	$ .055	/Kwh.
L.P. Gas	1.00	/Gal.
Diesel Fuel	1.50	/Gal.
Gasoline	1.60	/Gal.

enterprise budgets. The miscellaneous expense items include the cost of bedding, supplies, small tools, office expenses and other minor items that can be attributed to the hog enterprise.

Ownership costs measure the annual cash and non-cash costs for the investment in the hog system. The largest ownership cost is depreciation on the equipment and facilities. The investment in the remodeled finishing building is assumed to have a useful life of seven years, the new open front shed is expected to have a useful life of 12 years. Depreciation on the other facilities are calculated in an identical manner as used in the feeder pig systems. The interest on investment is at 12 percent of the average investment. Insurance and taxes are 1.6 percent of the average investment.

Net returns above costs shown, total ownership costs, total operating costs and total gross receipts are given for the various systems in Table 43. Gross receipts range from $13,404.79 for System A to $81,127.54 for System G. Similarly, A has the lowest operating cost and G the highest, $11,695.28 $58,458.44 respectively. Ownership costs reflect the differences in facilities for A and G. Subtracting ownership costs and operating costs from gross receipts results in net returns above costs shown of -$1,506.28 for System A (costs actually exceed gross receipts by this amount). This loss reflects the high costs of using facilities for just one litter annually. The two litter systems; B, C and E have estimated returns of $2,454.73, $1,782.04 and $1,598.40 respectively. And the four litter operations; D, F and H yield returns of $5,241.46, $5,447.22 and $5,321.08 respectively. System G, the six litter operation, has the highest net returns above costs shown of $9,314.12 annually.

Table 43. Summary of Average Annual Enterprise Budgets for the Eight Farrow-to-Finish Systems.

System	Total Gross Receipts	Total Operating Costs	Total Ownership Costs	Net Returns Above Cost Shown	Total Labor Hours	Net Returns Per Hour	Net Returns Per Cwt. Pork Sold
A	13,404.79	11,695.28	3,215.79	-1,506.28	453	-3.33	-5.51
B	25,624.97	19,399.17	3,771.07	2,454.73	690	3.56	4.89
C	25,624.97	20,186.08	3,656.85	1,782.04	696	2.56	3.55
D	52,195.19	39,774.97	7,178.76	5,241.46	1,246	4.21	5.11
E	25,624.97	20,037.69	3,988.88	1,598.40	696	2.30	3.18
F	52,195.19	39,618.34	7,129.63	5,447.22	1,246	4.37	5.31
G	81,127.54	58,458.44	13,354.98	9,314.12	1,679	5.55	5.92
H	52,195.19	39,566.41	7,307.70	5,321.08	1,246	4.27	5.19

The net returns per hour rank the systems in the same order as the net returns above costs shown. System G with net returns of $5.55 per hour has the highest hourly returns. It is the only system with net returns of more than $5.00 per hour. Systems D, F and H have net returns ranging from $4.21 to $4.37 per hour of labor used. Systems A, B, C and E have substantially lower net returns per hour of labor utilized.

It is evident that as the systems get larger in terms of litters produced per year, profitability increases. This is a reflection of two factors; 1) the pigs weaned per litter increase with the better facilities used in these systems, and 2) the systems that produce more pigs have more units of output over which to spread the annual fixed ownership cost. These factors result in a lower ownership cost per hundred pounds of pork produced.

Table 44 shows the impact increased energy prices have on the various systems. With a doubling of energy prices the two litter pasture system, System B, is more profitable on a per cwt. of pork sold basis, and woul- have similar net returns above costs as the four litter systems. System G still has the highest net returns above costs. With triple the energy cost, Systems B and G are the only systems to show positive net returns per cwt. of pork sold

Cash Flow Projections

Cash flow projections indicate the amount of cash that is required during the first two years to operate each farrow-to-finish system. Like the feeder pig systems, the first year is characterized by large capital outlays for facilities, equipment and livestock. Due to the length of time required to get a pig to market weight, the farrow-to-finish systems have no large cash inflows in the first year, whereas all of the feeder pig systems experience

Table 44. Affect of Increased Energy Costs on Net Returns Per Cwt. of Pork Sold for Farrow-to-Finish Systems.

System	Net Returns Per Cwt. Pork Sold	Net Returns When Energy Costs Double[1/]	Net Returns When Energy Costs Triple[2/]
A	$-5.51	$-6.73	$-7.95
B	4.89	3.97	3.05
C	3.55	.94	-1.67
D	5.11	1.77	-1.57
E	3.18	.85	-1.48
F	5.31	2.11	-1.09
G	5.92	3.54	1.15
H	5.19	1.99	-1.21

1/ Prices at:

Electricity	$ .11/Kwh.
L.P. Gas	2.00/Gal.
Diesel Fuel	3.00/Gal.
Gasoline	3.20/Gal.

2/ Prices at:

Electricity	$ .165/Kwh.
L.P. Gas	3.00/Gal.
Diesel Fuel	4.50/Gal.
Gasoline	4.80/Gal.

Figure 18. Construction and Production Calendar for the First Two Years of Operation for the One-Litter Farrow-to-Finish System A

	First Year of Operation			Second Year of Operation	
		Livestock		Livestock	
Groups	Construction	Purchases	Sales	Purchases	Sales
Week of:					
Jan. 3					
10					
17					
24					
31					
Feb. 7					
14					
21					
28					89 slaughter hogs
Mar. 7					
14					
21	Build fence & gestation shelters				
28					
Apr. 4		20 gilts 3 boars		3 boars	
11					
18					
25					
May 2					
9		Breed		Breed	
16					
23					
30					
June 6					3 non-bred gilts 3 boars
13			3 non-bred gilts 3 boars		
20					
27					
July 4	Build A-frame huts				
11					
18					
25					
Aug. 1					
8					
15					
22					
29					
Sept. 5		Farrow		Farrow	
12					
19					
26					
Oct. 3					
10	Remodel finishing building				
17					
24					
31			15 cull sows		15 cull sows
Nov. 7					
14					
21					
28					
Dec 5					
12					
19					
26					

Figure 19. Construction and Production Calendar for the First Two Years of Operation for the Two-Litter Farrow-to-Finish System B

Groups	First Year of Operation: Construction	First Year: Livestock Purchases	First Year: Livestock Sales	Second Year of Operation: Livestock Purchases	Second Year: Livestock Sales
Week of:					
Jan. 3					1 non-bred gilt; 1 non-bred sow; 3 boars
10					
17					
24					
31					
Feb. 7					
14					
21					92 slaughter hogs
28					
Mar. 7					
14					
21	Build fence & gestation shelters			Farrow	
28					
Apr. 4					
11		20 gilts; 3 boars			
18					
25				3 boars	
May 2					
9		Breed		Breed	
16					
23					
30			3 non-bred gilts		3 cull sows
June 6					
13					1 non-bred gilt; 1 non-bred sow
20					
27	Build A-frame huts				
July 4					
11					
18					
25	Build nursery sheds				
Aug. 1					
8					
15					
22					
29		Farrow		Farrow	
Sept. 5					
12					
19					
26					103 slaughter hogs
Oct. 3	Remodel finishing building				
10					
17					
24					
31			3 cull sows		3 cull sows
Nov. 7					
14					
21					
28		Breed		Breed	
Dec. 5					
12					
19					
26					

Figure 20. Construction and Production Calendar for the First Two Years of Operation for the Two-Litter Farrow-to-Finish Systems C and E

Groups	First Year of Operation: Construction	First Year: Livestock Purchases	First Year: Livestock Sales	Second Year of Operation: Livestock Purchases	Second Year: Livestock Sales
Week of:					
Jan. 3					
10					
17					
24					
31					
Feb. 7					
14					3 boars
21					
28					92 slaughter hogs
Mar. 7				Farrow	
14	Build or remodel gestation facilities				
21					
28					
Apr. 4					
11		20 gilts 3 boars		3 boars	
18					
25					3 cull sows
May 2					
9				Breed	
16		Breed			
23					
30					
June 6	Build or remodel farrowing facilities		3 non-bred gilts		1 non-bred gilt 1 non-bred sow
13					
20					
27					
July 4					
11					
18					
25					
Aug. 1					
8					
15					
22					
29				Farrow	
Sept. 5	Buy machinery	Farrow			103 slaughter hogs
12					
19					
26	Remodel finishing building				
Oct. 3		6 replacement gilts			
10					
17					
24					
31					
Nov 7		Breed	3 cull sows	Breed	3 cull sows
14					
21					
28					
Dec. 5					
12			1 non-bred gilt 1 non-bred sow		1 non-bred gilt 1 non-bred sow
19					
26					

Figure 21. Construction and Production Calendar for the First Two Years of Operation for the Six-Litter Farrow-to-Finish System G.

Groups	First Year of Operation			Second Year of Operation	
	Construction	Livestock Purchases	Livestock Sales	Livestock Purchases	Livestock Sales
Week of:					
Jan. 3				Breed "A"	
10					
17					1 non-bred gilt
24				6 replacement gilts	1 non-bred sow
31					
Feb. 7					3 cull sows
14				Farrow "C"	
21				Breed "B"	
28					
Mar. 7					
14					
21				6 replacement gilts	1 non-bred gilt
28					1 non-bred sow
Apr. 4	Build gestation facilities				
11				Farrow "A"	3 cull sows
18					98 slaughter hogs
25				Breed "C"	
May 2					
9					3 boars
16		20 gilts group "A" 3 boars			
23					1 non-bred gilt
30				3 boars	1 non-bred sow
June 6					3 cull sows
13				Farrow "B"	
20				Breed "A"	98 slaughter hogs
27		Breed "A"			
July 4	Buy Tractor-manure spreader				
11					
18	Remodel dairy barn for farrowing and nursery		3 non-bred gilts		1 non-bred gilt
25		23 gilts group "B"			1 non-bred sow
Aug. 1					
8					3 cull sows
15				Farrow "C"	98 slaughter hogs
22				Breed "B"	
29		Breed "B"			
Sept. 5					
12	Build 1/2 of finish shed				
19			6 non-bred gilts		3 non-bred gilts
26		20 gilts group "C"			2 non-bred sows
Oct. 3	Buy pit-pump and liquid spreader				3 cull sows
10					
17		Farrow "A"		Farrow "A"	110 slaughter hogs
24		Breed "C"		Breed "C"	
31					
Nov. 7	Complete finishing shed				
14					
21					
28		6 replacement gilts	3 non-bred gilts		1 non-bred gilt
Dec. 5					1 non-bred sow
12			3 cull sows		
19		Farrow "B"		Farrow "B"	3 cull sows
26					110 slaughter hogs

Figure 22. Construction and Production Calendar for the First Two Years of Operation for the Four-Litter Farrow-to-Finish Systems D, F and H.

Groups	First Year of Operation: Construction	First Year: Livestock Purchases	First Year: Livestock Sales	Second Year of Operation: Livestock Purchases	Second Year: Livestock Sales
Week of:					
Jan. 3				Farrow "B"	
10					
17					
24					
31				6 gilts replacements for "B"	
Feb. 7					
14					
21					
28					3 cull sows
Mar. 7				Breed "B"	
14					95 slaughter hogs
21					
28	Build or remodel 1/2 of gestation facilities				1 non-bred gilt
Apr. 4				Farrow "A"	1 non-bred sow
11					3 boars
18					
25					
May 2		20 gilts "Group A" 3 boars		3 boars	
9					
16					
23					
30					3 cull sows
June 6	Buy machinery	Breed "A"		Breed "A"	95 slaughter hogs
13					
20					
27	Finish gestation facilities				1 non-bred gilt
July 4			3 non-bred gilts	Farrow "B"	1 non-bred sow
11					
18					
25		20 gilts "Group B"			
Aug. 1	Build or remodel farrowing facilities				
8					
15					
22					
29					3 cull sows
Sept. 5	Build or remodel finishing facilities	Breed "B"		Breed "B"	107 slaughter hogs
12					
19					
26					
Oct. 3		Farrow "A"	3 non-bred gilts	Farrow "A"	
10					
17					
24					1 non-bred gilt
31					
Nov. 7		Buy 6 replacement gilts for "A"	3 cull sows		1 non-bred sow
14					
21					
28			3 cull sows		3 cull sows
Dec. 5		Breed "A"		Breed "A"	
12					107 slaughter hogs
19			1 non-bred gilt		
26			1 non-bred sow		

sales of feeder pigs during the first year. The combination of the higher investment for the farrow-to-finish facilities (resulting from the finishing facilities) and the lack of sales during the first year means that more capital is required for the farrow-to-finish systems than for the feeder pig systems.

The projected cash flows are based on: 1) the construction and investment schedule and 2) the schedule for purchasing the breeding stock and farrowing the first litters. Figures 18-22 indicate the basic time sequence used for construction of the facilities, purchase of the equipment, purchase of the gilts, breeding, and farrowing for farrow-to-finish systems. The calendars show the interrelationship of the construction of facilities and the animal flow during the start-up year. Figure 22 indicates one-half of the gestation facilities must be constructed prior to the purchase of the all gilt breeding herd. The finishing facilities are constructed later in the year, within four weeks after the first litter of pigs are farrowed and prior to the start-up winter. Payment for the construction materials, livestock and machinery are assumed to be made when these items are placed in service on the farm.

After establishing the schedule for construction and investment and determining the animal flow for each system for the first two years, it is possible to estimate the projected monthly cash flows for years one and two. Tables 45 and 46 give the detailed cash flow for years one and two for System D. The first section shows the cash receipts or cash inflows, the second section details the cash outflows or expenses. The flow of funds summary gives the beginning and ending cash balance, monthly cash difference and the resultant borrowing or loan repayment. The last section, current loan summary, provides the information on the accumulation of debt and the accrual of interest on the borrowing. Thus, for example, a negative cash difference of $7,507 in September of year one for System D would require an equal amount of

TABLE 45 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM D IN FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SOW N. B.	1.0	0	0	0	0	0	0	0	0	0	0	0	162.	162.
GILT N. B.	1.0	0	0	0	0	0	0	418.	0	418.	0	0	139.	974.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	0	488.	488.
TOTAL		0	0	0	0	0	0	418.	0	418.	0	0	790.	1625.
CASH EXPENSES														
CORN	1.0	0	0	0	0	123.	152.	120.	234.	241.	273.	539.	1003.	2684.
SOYBEAN MEAL	1.0	0	0	0	0	67.	84.	65.	125.	132.	174.	392.	570.	1608.
MINERALS	1.0	0	0	0	0	5.	7.	5.	10.	10.	13.	24.	33.	107.
OATS	1.0	0	0	0	0	0	0	0	0	0	4.	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	0	18.	11.	0	29.
SUGAR	1.0	0	0	0	0	0	0	0	0	0	5.	0	0	5.
GRIND & MIX	1.0	0	0	0	0	6.	8.	6.	12.	13.	16.	30.	53.	144.
VET & MED.	1.0	0	0	0	0	30.	30.	30.	30.	30.	51.	30.	44.	275.
INS. AND TAXES	1.0	0	0	0	0	0	0	285.	0	0	0	0	0	285.
HAULING & MKTG.	1.0	0	0	0	0	0	0	11.	0	11.	0	0	24.	47.
LP GAS	1.0	0	0	0	0	0	0	0	0	0	0	53.	153.	205.
ELECTRICITY	1.0	0	0	0	0.	0.	15.	15.	15.	15.	15.	208.	37.	320.
MISCL EXPENSE	1.0	0	0	0	0	21.	21.	21.	21.	21.	21.	21.	24.	171.
GILTS	1.0	0	0	0	0	3700.	0	0	3700.	0	1110.	0	0	8510.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
GESTATION SHED	1.0	0	0	0	4833.	0	4833.	0	0	0	0	0	0	9666.
FARROW-REMODEL	1.0	0	0	0	0	0	0	4500.	4500.	0	0	0	0	9000.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	0	300.	0	0	0	300.
SORTING CHUTE	1.0	0	0	0	0	0	0	0	0	145.	0	0	0	145.
FINISH-O.F. SHED	1.0	0	0	0	0	0	0	0	0	6619.	0	6619.	0	13238.
MANURE SPREADER	1.0	0	0	0	0	0	2000.	0	0	0	0	0	0	2000.
USED SKID LOADR	1.0	0	0	0	0	0	3500.	0	0	0	0	0	0	3500.
EQUIP-LUB&REPAIR	1.0	0	0	0	18.	18.	29.	42.	55.	68.	68.	79.	79.	456.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	156.	0	0	311.	0	0	381.	848.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	4.	0	0	8.	0	0	13.	26.
TOTAL		0	0	0	4851.	5320.	10839.	5101.	8702.	7924.	1767.	8004.	2414.	54923.

FLOW OF FUNDS SUMMARY — DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	0	-4851.	-5320.	-10839.	-4684.	-8702.	-7507.	-1767.	-8004.	-1624.	-53298.
=CURRENT CASH BALANCE	0	0	0	-4851.	-5320.	-10839.	-4684.	-8702.	-7507.	-1767.	-8004.	-1624.	
+MONEY BORROWED	0	0	0	4851.	5320.	10839.	4684.	8702.	7507.	1767.	8004.	1624.	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	0	0	0	0	0	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	0	0	0	0	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1												
ACCUMULATED BORROWING	0	0	0	4851.	10171.	21010.	25694.	34396.	41903.	43670.	51674.	53298.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	0	0	0	0	49.	150.	360.	617.	961.	1380.	1817.	2334.
0 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	0	0	0	4851.	10220.	21160.	26054.	35014.	42864.	45050.	53491.	55632.

TABLE 46 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM D IN SECOND YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	10694.	0	0	0	0	0	0	0	0	0	10694.
SLAUGHTER HOGS	1.0	0	0	0	0	0	10857.	0	0	0	0	0	0	10857.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	12388.	0	0	0	12388.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	0	0	0	11849.	11849.
GILT N.B.	1.0	0	0	139.	0	0	0	139.	0	139.	0	0	0	418.
SOW N.B.	1.0	0	0	162.	0	0	0	162.	0	162.	0	0	0	486.
SOW CULL	1.0	0	0	488.	0	0	488.	0	0	488.	0	0	488.	1954.
BOAR	1.0	0	0	0	527.	0	0	0	0	0	0	0	0	527.
TOTAL		0	0	11484.	527.	0	11346.	301.	0	13177.	0	0	12337.	49172.
CASH EXPENSES														
CORN	1.0	1181.	1482.	2038.	967.	1478.	1687.	1072.	1597.	1866.	1094.	1739.	2177.	18378.
SOYBEAN MEAL	1.0	608.	693.	925.	494.	719.	774.	563.	763.	834.	558.	809.	992.	8732.
MINERALS	1.0	40.	51.	64.	33.	52.	53.	36.	55.	58.	37.	60.	68.	606.
OATS	1.0	4.	0.	0	4.	0.	0	5.	0	0	4.	0	0.	18.
WHEAT BRAN	1.0	20.	9.	0	17.	12.	0	17.	12.	0	17.	0	12.	115.
SUGAR	1.0	5.	0	0	5.	0.	0	6.	0	0	5.	0.	0	22.
GRIND & MIX	1.0	62.	76.	103.	51.	76.	85.	56.	82.	94.	62.	89.	110.	945.
VET & MED	1.0	65.	58.	44.	65.	58.	44.	65.	58.	65.	65.	58.	44.	689.
INS. AND TAXES	1.0	0	0	0	0	0	0	380.	0	0	0	0	0	380.
MKTG & HAULING	1.0	0	0	284.	16.	0	276.	9.	0	318.	0	0	309.	1212.
LP GAS	1.0	213.	153.	80.	14.	0	0	0	0	0	0	53.	153.	664.
ELECTRICITY	1.0	37.	208.	37.	37.	208.	37.	37.	208.	37.	37.	208.	37.	1127.
MISCL EXPENSE	1.0	32.	32.	32.	32.	32.	32.	32.	32.	32.	32.	32.	32.	378.
GILTS	1.0	0	0	1110.	0	0	0	0	0	0	0	0	0	1110.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	70.	381.	0	70.	381.	0	70.	381.	0	70.	381.	1804.
MACHINE(FUEL,LUB,REP)		0	5.	13.	0	5.	13.	0	5.	13.	0	5.	13.	74.
EQUIP. (FUEL,LUB,REP)		79.	79.	79.	79.	79.	79.	79.	79.	79.	79.	79.	79.	945.
TOTAL		2343.	2915.	5190.	3164.	2784.	3461.	2356.	2959.	3777.	1990.	3200.	4407.	38549.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-2343.	-2915.	6293.	-2637.	-2784.	7884.	-2055.	-2959.	9401.	-1990.	-3200.	7930.	10622.
=CURRENT CASH BALANCE	-2343.	-2915.	6293.	-2637.	-2784.	7884.	-2055.	-2959.	9401.	-1990.	-3200.	7930.	
+MONEY BORROWED	2343.	2915.	0	2637.	2784.	0	2055.	2959.	0	1990.	3200.	0	
-PAYMENT ON LOAN	0	0	2284.	0	0	6116.	0	0	7662.	0	0	6271.	
-INTEREST PAID AT .12	0	0	4009.	0	0	1769.	0	0	1738.	0	0	1660.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

53298.00LOAN OUT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	55641.	58556.	56272.	58909.	61697.	55581.	57635.	60594.	52932.	54922.	58122.	51851.

2334.00ACCRUED INTEREST-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCRUED INTEREST AT .12	2867.	3423.	0	563.	1152.	0	556.	1132.	0	529.	1079.	0

55632.00 ACCURED TOTAL DEBT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED TOTAL DEBT	58508.	61979.	56272.	59471.	62848.	55581.	58191.	61727.	52932.	55451.	59200.	51851.

borrowing since there is no cash balance to draw from to meet this difference. The $7,507 that is borrowed is added to the accumulated borrowing level from the previous month resulting in $41,903 of accumulated borrowing at the end of the month. The accrued interest of $961 is added to the total accumulated borrowing resulting in an accumulated total debt of $42,864 at the end of September. The accumulated debt for System D reaches a maximum of $62,848 May of the second year. It is reduced to $51,851 by the end of the second year. This cash flow assumes no money is withdrawn for family living or for the payment of income taxes. Including these in the cash flow will lead to higher debt levels and longer repayment periods.

Figure 23 graphs the total accumulated debt for System C, a two litter system; System D, a four litter system and the six litter System G, for the first three years of operation. This comparison indicates that System G reaches a maximum debt of $110,136 in May of the second year, while System C has a maximum debt level of $35,253 in August of year two. The other four litter systems, F and H have a debt accumulation similar to System D. Systems B and E are similar to the two litter System C. Appendix E, Tables 86 through 106 contain the detailed cash flows for the various systems.

Having established the maximum debt level and the average annual cash flow, it is possible to estimate the length of time necessary to repay the debt. Using the assumption that prices remain constant in future years, Table 47 gives the estimated years required to reduce the accumulated debt to zero. As expected, the length of time required for repayment of the debt is directly related to the profit generated by the particular system and its level of investment. The entries in the first column indicate the number of years required for debt repayment assuming no charge for labor. Under this situation, System A, the one litter pasture

Figure 23 Monthly Total Accumulated Debt Levels for Farrow-to-Finish Systems C, D and G.

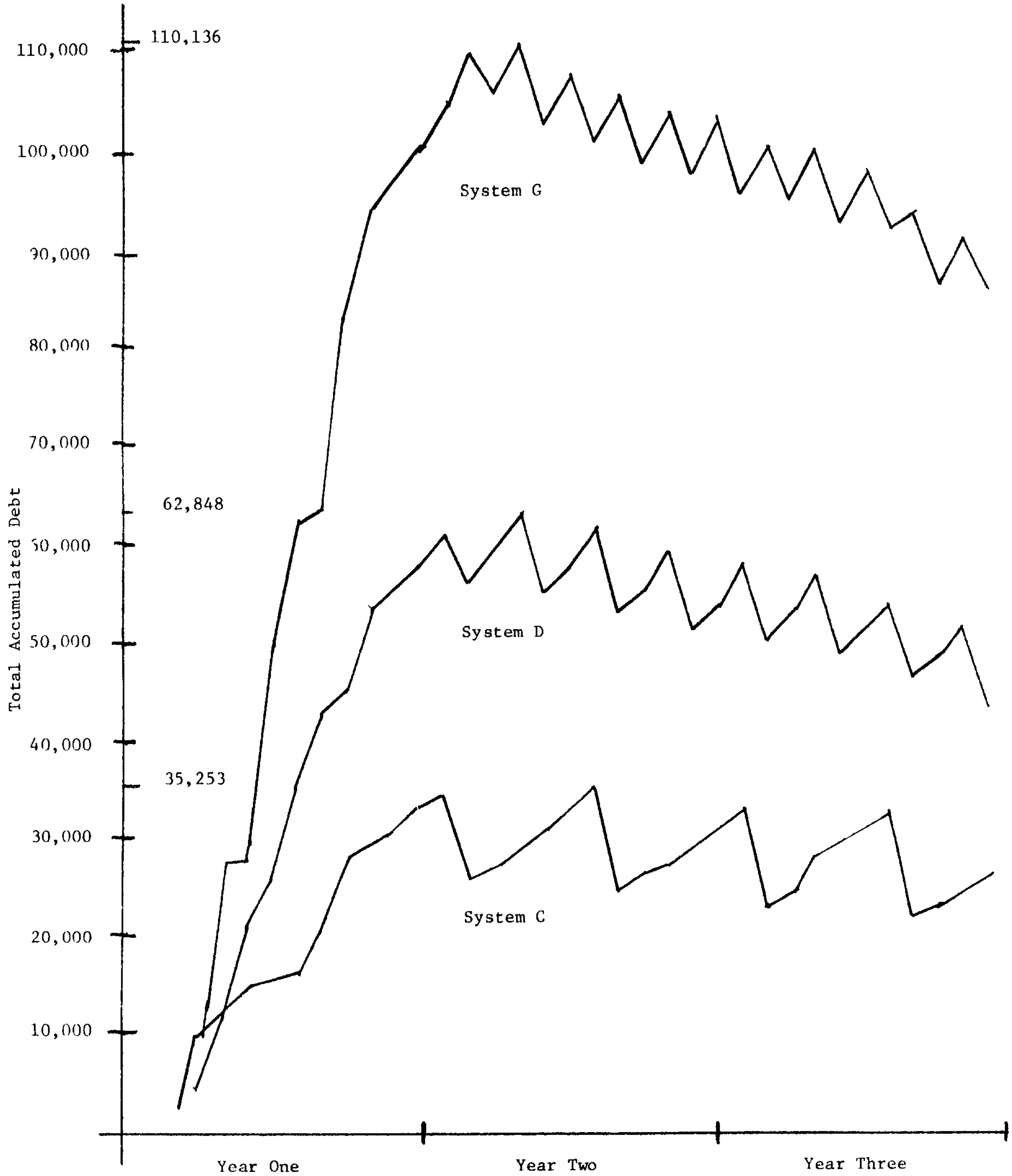


Table 47. Approximate Number of Years Required to Repay the Total Investment with Earnings from the System.

System	With No Labor Charge	With Labor Charge of $5.00 per Hour
A	**	-
B	6-3/4	14
C	9-3/4	**
D	7-1/2	15
E	10-3/4	**
F	7-1/4	15
G	7-3/4	12
H	8	18

** Over 75 years

system would require more than 75 years to repay the debt. This is consistent with the lack of profit its enterprise budget showed. The four litter systems, D and F, indicate a slightly faster payback than the six litter System G because of the higher maximum debt level for G. The other systems require 8 to 10-3/4 years to repay the maximum debt level.

When an amount equal to \$5.00 per hour of labor is withdrawn for hired labor and/or an operator withdrawal, more time is required to repay the debt. The entries in Table 47 indicate System A does not generate a large enough cash difference to pay \$5.00 per hour for labor and provide money to repay the debt. The total accumulated debt continues to rise from year to year for System A under this assumption. System G, the six litter system, has the shortest loan payback of 12 years, followed by 14 years for System B. The four litter systems have a payback period under 20 years, whereas the two litter Systems C and E have a payback length of more than 75 years.

HOG FINISHING

The hog finishing operation begins with the purchase of feeder pigs that weigh 40 to 50 pounds and ends with the sale of 220 pound slaughter hogs. Swine finishing normally requires fewer management decisions and less labor per hundred pounds of pork sold than the other two types of hog production. However, finishing enterprises are considered to be relatively capital intensive requiring more operating capital per hour of labor than other types of swine production. However, operating capital is invested for a shorter period before hogs are sold than with either feeder pig production or the farrow-to-finish operation. From start-up to the first major inflow of cash is usually about 8 months for a feeder pig producer and 11 to 12 months for a farrow-to-finish operation. The finishing operation takes about 4 months from the time feeder pigs are purchased to the sale of 220 pound slaughter hogs.

Feeder pigs can be finished in Minnesota in various facilities ranging from sheds on pasture during the summer months to an environmentally controlled confinement operation.

The analysis by Eidman and Greene [7], examines three medium and high investment confinement systems, an open front shed with a concrete apron, a modified open front shed with partially slotted floors and the total confinement totally-slotted floor operation. Three low investment finishing systems that would typically be found on small farms are analyzed here.

System A - Is a pasture system with 7 acres of high quality pasture and sun shades for shelters. This sytem has a capacity to finish 140 pigs.

System B - Is a dirt lot system with two acres and sun shades for finishing 140 pigs.

System C - Is a remodeled building that has a small outside lot for summer finishing of 140 pigs and allows 140 pigs to be finished inside during the winter.

This report is intended to analyze these operations from the perspective of someone starting a finishing operation with very limited capital. These finishing systems were developed for the feeder pig producer who is thinking of finishing out his feeder pigs or would like to have the option to feed them out occasionally.

Animal Flow

The animal flow for a finishing operation is relatively simple - a certain number of feeder pigs are purchased, on average a small percent die and the remainder are sold as slaughter hogs after a prescribed feeding period. This study assumes that feeder pigs weighing 40 pounds are purchased in groups of 140 and a 3 percent death loss results in 136 220 pound slaughter hogs being sold.

The difference between systems is the length of time for the purchased feeder pigs to reach market weight. The feeding period is divided into two stages, growing (40 pounds to 110 pounds) and finishing (110 pounds to 220 pounds). The length of time to complete each stage is estimated based on the composition of the rations fed, feeding rates, and the type of facilities. It is assumed, as shown in Table 48, that a hog finished in the remodeled building is fed 4.3 pounds per day of a 16 percent protein grower ration for 50 days and 6.3 pounds of a 13 percent finisher ration for 70 days. The 120 day feeding period is assumed to be the same during the summer months when the hogs are on the dirt lot as during the winter

Table 48. Feeding Rates, Days on Feed and Percent Protein of Rations by Type of System for Growing and Finishing Swine.

	Pounds/ Day/Pig	Days on Feed	Percent Protein in Ration
Remodeled Building			
Growing	4.3	50	16
Finishing	6.3	70	13
		120	
Dirt Lot			
Growing	4.3	50	16
Finishing	6.3	70	13
		120	
Pasture			
Growing	3.8	55	14
Finishing	5.8	75	11
		130	

months when the hogs are confined in the building and protected from the weather. The same feeding assumptions are made for the dirt lot system with 120 days needed to finish the pigs.

Research indicates good legume pasture will reduce the amount of feed required as well as the protein level needed to finish hogs to market weight. This analysis assumes that grazing good alfalfa pasture at the rate of 20 pigs per acre will reduce the feeding rate for the grower ration to 3.8 pounds per pig per day, and the rate of feeding the finishing ration to 5.8 pounds per day (as compared to 4.3 and 6.3 for the other systems) [6]. The protein level for pigs on good legume pasture can be reduced to 14 percent and 11 percent, respectively, for growing and finishing rations. Feeding these pasture rations will add approximately 5 days to the feeding period for each stage.

The feeding rates assume that minimum waste and proper feed management are maintained. The 16 percent and 14 percent grower rations, and the 13 percent and 11 percent finishing rations used in this study are presented in Table 49.

The three systems are designed for 140 head capacity. The analysis assumes the remodeled building is used twice a year and the pasture and dirt lot system finish one group annually during the summer months. Purchases of feeder pigs are timed so that sales occur during months of seasonally high hog prices. The production calendar is shown in Figure 24. The Pasture System A, and the dirt lot System B purchase 140 feeder pigs in mid-April. The pasture system sells 136 slaughter hogs in the latter part of August, approximately 10 days after the sale of 136 hogs from the dirt lot system. System C, the remodeled building, assumes a summer

Table 49. Growing and Finishing Rations

Feed Ingredient	16% Grower	14% Grower	13% Finishing	11% Finishing
	Ration			
	%			
Ground Yellow Corn[1]	80.5	83.6	86.6	90.6
Soybean Meal (48.5)[2]	17.0	13.8	10.7	6.7
Dicalcium Phosphate[3]	1.0	1.3	1.2	1.4
Ground Limestone	.9	.7	.9	.7
Salt[4]	.3	.3	.3	.3
Vitanium - Mineral Pre Mix	.3	.3	.3	.3
Composition				
Protein	16	14	13	11
Calcium[3]	.65	.62	.50	.58
Phosphorus	.50	.55	.50	.55

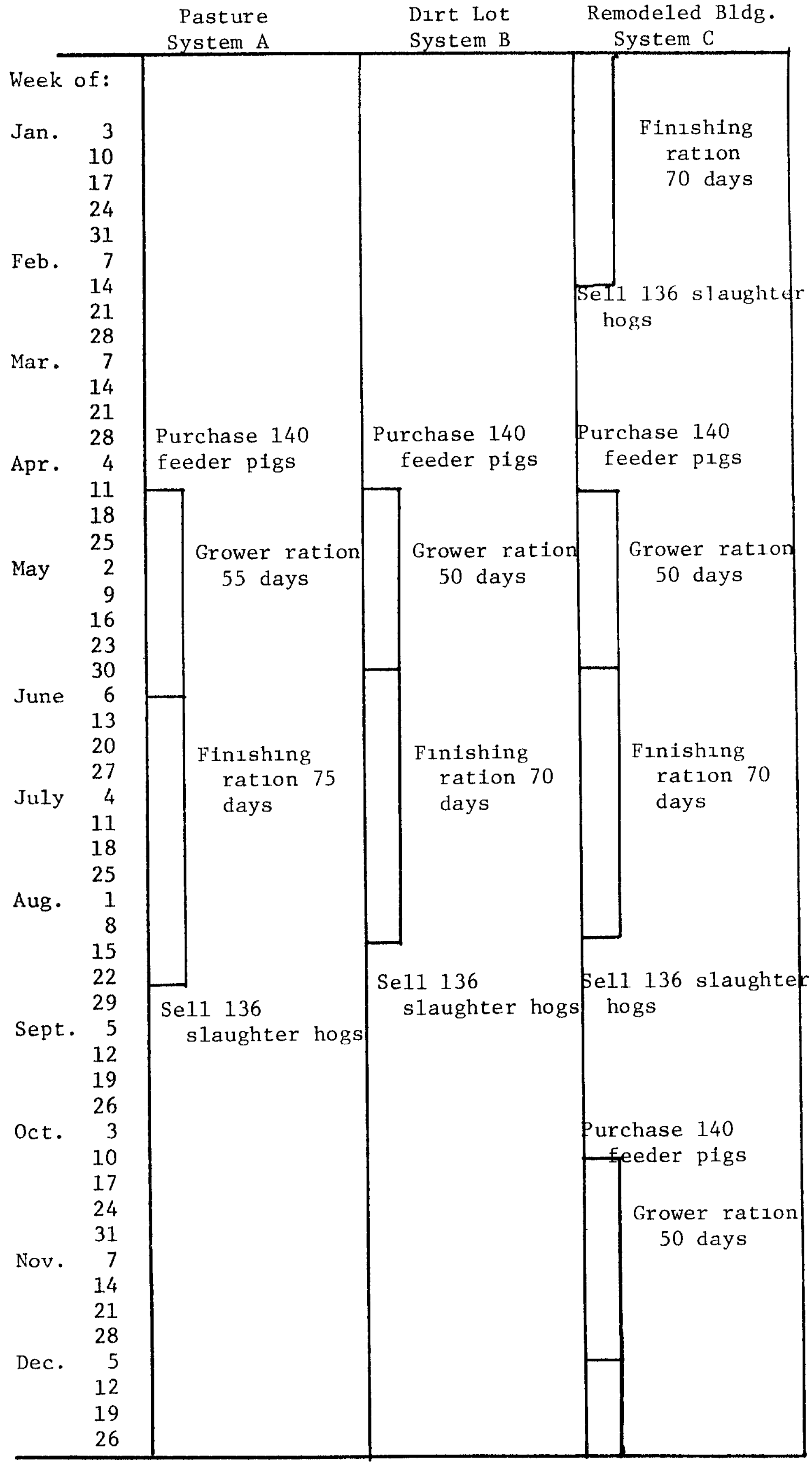
1 Ground milo can replace corn in the rations on a 1 to 1 basis. If ground barley is used to replace the corn, then the quantity of soybean meal must be reduced by 10 percent and replaced by an equal amount of ground barley - the feeding of ground barley will not affect the level of feed intake by the hogs, but will reduce the rate of gain by up to 10 percent.

2 If 44 percent rather than 48.5 percent soybean meal is fed, increase the amount of soybean meal and reduce the amount of corn by 12 percent.

3 Less calcium is included in the 14 percent and 11 percent rations than the 16 percent and 13 percent rations because of the high level of calcium in alfalfa pasture.

4 The trace mineralized salt should contain at least .008 percent iodine.

Figure 24. The Production Calendar, the Rations Fed and Sales During the Average Year of Operation for the Three Finishing Systems.



schedule identical to the dirt lot system, and a second group of feeder pigs purchased in October and sold in February of the following year.

Building Systems and Investment Costs

Facilities for the pasture operation include enough fencing to enclose 7 acres, sun shades that provide a minimum of 6 square feet per finished hog, feeders, waterers, and a loading chute. A description of the items included, the quantity and the estimated investment cost for these items are shown in Table 50. No machinery is assumed to be needed for this system. However, occasionally machinery may be needed for pasture maintenance including clipping to control pasture growth and harrowing to spread manure.

The dirt lot system is 2 acres of fenced pasture with 70 pigs per acre. Little, if any, feed value is expected from the pasture due to the high concentration of pigs and the associated difficulty in maintaining the pasture. Equipment included is three sun shades, waterers, feeders and a loading chute. No machinery is required. A description of each item, the number of units, the investment costs and total hours of labor required for construction are given in Table 51.

The remodeled facility could be a pole barn, machinery shed or possibly even a dairy barn. Finishing during the summer months the hogs will be fed and watered in the small outside dirt lot adjacent to the barn. This lot is added to reduce manure handling. For winter months, the hogs are finished inside. This building is uninsulated and naturally ventilated with a concrete floor sloped to a wide gutter. Table 52 contains a description of the facilities, the investment cost and the labor required for remodeling this system.

Table 50. Finishing Facilities for Pasture Finishing System A - 140 Hog Capacity

Item	Size and Description	Units	Cost Per Unit	Total
Fencing	Fence and Post	2210 ft.	$ 1.00	$2,210
Sun Shades	16' x 20'	3	390	1,170
Feeders	12 opening - round	2	250	500
Waterers	95 gallon fountain	3	150	450
Loading Chute				300
TOTAL INVESTMENT				$4,630

Total hours of labor for construction: 100 hours

Table 51. Finishing Facilities for Dirt Lot Finishing System B - 140 Pig Capacity

Item	Size and Description	Units	Cost Per Unit	Total
Fencing	Fence and Posts	1207 ft.	$ 1.00	$1,207
Sun Shades	16' x 20'	3	390	1,170
Feeders	12 opening - round	2	250	500
Waterers	95 gallon fountain	3	150	450
Loading Chute				300
TOTAL INVESTMENT				$3,627

Total hours of labor for construction: 56 hours

Table 52. Remodeled Finishing System C - 140 Pig Capacity

Finishing Facilities:

Item	Size and Description	Units	Cost Per Unit	Total
Remodel Building	36' x 48'	1728 $ft.^2$		$1,782
Concrete & Reinforcing	36' x 48'	1728 $ft.^2$		1,031
Fencing	Fence and Posts	100 ft.	1	100
Feeders	8 hole fence line	4	$250	1,000
Waterers	2 hole	4	25	100
Loading Chute				445
TOTAL INVESTMENT				$4,458

Machinery and Equipment:

Manure Spreader	125 bushel	$2,000
Used Skid Loader		3,500
TOTAL		$5,500
Total Facilities and Machinery		$9,958

Total hours of labor for remodeling - 72 hours

No labor charge is included in the investment cost since it is assumed that the operator will do the construction and remodeling. A more detailed description of each system is given in the appendix.

Enterprise Budget

Enterprise budgets which list the estimated average annual net returns for the three finishing systems are presented in Tables 53, 54 and 55. The budgets provide itemized receipt and cost information for an average year of production.

The gross receipts from the marketing of slaughter hogs are based on the production calendar given for each system in Figure 24 and reflect the 3 percent death loss. The annual price for slaughter hogs, based on the five year planning price [20], is $52.00 per hundred pounds. This price is seasonally adjusted for the month that the sales take place.

The purchase of feeder pigs for the three systems is based on the production calendar in Figure 24 and an annual average price of $50.00 per pig. The annual price is seasonally adjusted by the monthly price index in the appendix for feeder pigs. The cost of hauling the feeder pigs to the farm is assumed to be $.30 per head.

Feed quantities for each system are based on the annual animal flow, and the corresponding feeding rates from Table 48. The feed quantity calculations assume that the death loss occurs when the pigs are changed from the grower ration to the finishing ration. Table 56 gives the annual amounts of corn, soybean meal (48.5%) and the total pounds of feed required by each system.

TABLE 53. AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR HOG FINISHING, SYSTEM A IN AVERAGE YEAR OF PRODUCTION.

ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Cwt of Gain
1. GROSS RECEIPTS						
SLAUGHTER HOGS	2.20	CWT.	56.11	136.00	16788.11	
TOTAL					16788.11	69 03
2. OPERATING COSTS						
CORN		BU.	3.00	1394.00	4182.00	
SOYBEAN MEAL		CWT.	14.50	80.10	1161.45	23.27
MINERALS		LBS.	.05	2358.00	117.90	
GRIND & MIX		TONS	4.50	44.20	198.90	
VET & MED.		DOL.	1.00	74.00	74.00	
INS. AND TAXES		DOL.	1.00	85.00	85.00	2 36
HAULING & MKTG.		CWT.	1.25	299.20	374.00	
MISCL EXPENSE		DOL.	1.00	40.00	40.00	
FEEDER PIGS		HD.	58.50	140.00	8190.00	33 68
HAULING IN		HD.	.30	140.00	42.00	
EQUIPMENT(FUEL,LUBE,REP)		DOL.			166.57	2 94
INTEREST ON OPER.CAP.,		DOL.			506.47	
TOTAL OPERATING COSTS					15138.29	65.25
3. INCOME ABOVE OPERATING COSTS					1649.82	6 78
4. OWNERSHIP COSTS						
INT. ON EQUIPMENT		DOL.	.12	2315.00	277.80	
DEPR. ON EQUIPMENT		DOL.			643.57	
INS., TAXES ON EQPT., LVSTK., AND MACH.		DOL.			37.04	
TOTAL OWNERSHIP COSTS					958.41	3 94
5. TOTAL COSTS SHOWN					16096.71	66 19
6. NET RETURNS ABOVE COSTS SHOWN					691.41	2.84

SEVEN ACRES PASTURE (20 PIGS/ACRE FOR 140 HOG CAPACITY).
FEED: 14 PERCENT GROWER RATION - 11 PERCENT FINISHER RATION.

TABLE 54 AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR HOG FINISHING, SYSTEM B IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Cwt of Gain
1.	GROSS RECEIPTS						
	SLAUGHTER HOGS	2:20	CWT.	56.11	136.00	16788.11	
	TOTAL					16788.11	69.03
2.	OPERATING COSTS						
	CORN		BU.	3.00	1360.10	4080.30	
	SOYBEAN MEAL		CWT.	14.50	115.40	1673.30	
	MINERALS		LBS.	.05	2371.90	118.60	24.98
	GRIND & MIX		TONS	4.50	45.00	202.50	
	VET & MED.		DOL.	1.00	114.00	114.00	
	INS. AND TAXES		DOL.	1.00	85.00	85.00	
	HAULING & MKTG.		CWT.	1.25	299.20	374.00	2.52
	MISCL EXPENSE		DOL.	1.00	40.00	40.00	
	FEEDER PIGS		HD.	58.50	140.00	8190.00	33.68
	HAULING IN		HD.	.30	140.00	42.00	
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			200.11	3.16
	INTEREST ON OPER.CAP.,		DOL.			525.60	
	TOTAL OPERATING COSTS					15645.41	64.33
3.	INCOME ABOVE OPERATING COSTS					1142.71	4 70
4.	OWNERSHIP COSTS						
	INT. ON EQUIPMENT		DOL.	.12	1813.50	217.62	
	DEPR. ON EQUIPMENT		DOL.			500.29	
	INS., TAXES ON EQPT., LVSTK., AND MACH.		DOL.			29.02	
	TOTAL OWNERSHIP COSTS					746.92	3.07
5.	TOTAL COSTS SHOWN					16392.33	67 40
6.	NET RETURNS ABOVE COSTS SHOWN					395.78	1.63

TWO ACRES DIRT LOT (70 PIGS/ACRE FOR 140 HOG CAPACITIY).

TABLE 55. AVERAGE ANNUAL COSTS AND RETURNS ENTERPRISE BUDGET FOR HOG FINISHING, SYSTEM [c] IN AVERAGE YEAR OF PRODUCTION.

	ITEM	WEIGHT EACH	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST	Per Cwt of Gain
1.	GROSS RECEIPTS						
	SLAUGHTER HOGS	2.20	CWT.	56.11	136.00	16788.11	
	SLAUGHTER HOGS	2.20	CWT.	54.86	136.00	16414.11	
	TOTAL					33202.22	68 26
2.	OPERATING COSTS						
	CORN		BU.	3.00	2720.10	8160.30	
	SOYBEAN MEAL		CWT.	14.50	230.80	3346.60	24 98
	MINERALS		LBS.	.05	4743.80	237.19	
	GRIND & MIX		TONS	4.50	90.10	405.45	
	VET & MED.		DOL.	1.00	228.00	228.00	
	ELECTRICITY		KWH	.05	490.00	26.95	
	INS. AND TAXES		DOL.	1.00	145.00	145.00	2.69
	HAULING & MKTG.		CWT.	1.25	598.40	748.00	
	MISCL EXPENSE		DOL.	1.00	160.00	160.00	
	FEEDER PIGS		HD.	58.50	140.00	8190.00	30 35
	FEEDER PIGS		HD.	46.95	140.00	6573.00	
	HAULING IN		HD.	.30	280.00	84.00	
	TRACTORS(FUEL,LUBE,REP)		DOL.			262.39	
	MACHINERY(FUEL,LUBE,REP)		DOL.			19.22	2 73
	EQUIPMENT(FUEL,LUBE,REP)		DOL.			188.25	
	INTEREST ON OPER.CAP.,		DOL.			774.55	
	TOTAL OPERATING COSTS					29548.90	60 75
3.	INCOME ABOVE OPERATING COSTS					3653.32	7 51
4.	OWNERSHIP COSTS						
	INT. ON EQUIPMENT		DOL.	.12	2229.00	267.48	
	INT. ON MACHINERY		DOL.	.12	688.67	82.64	
	DEPR. ON EQUIPMENT		DOL.			610.37	
	DEPR. ON MACHINERY		DOL.			82.47	
	INS.,TAXES ON EQPT., LVSTK., AND MACH.		DOL.			39.80	
	TOTAL OWNERSHIP COSTS					1082.75	2 23
5.	TOTAL COSTS SHOWN					30631.65	62 98
6.	NET RETURNS ABOVE COSTS SHOWN					2570.57	5 28

REMODELLED BUILDING, WITH SMALL OUTSIDE LOT FOR SUMMER FINISHING. CAPACITY FOR 140 HOGS IN SUMMER AND WINTER.

Table 56. Annual Feed Requirements for Finishing Systems

System	Bushels of Corn	Cwt. of 48.5% Soybean Meal	Tons of Total Feed
A	1394	80.1	44.2
B	1360.1	115.4	45.0
C	2720.1	230.8	90.1

System A, the pasture system requires more corn but less soybean meal than System B, the dirt lot operation for the same number of hogs. The pasture available with System A provides part of the feed but results in a slower rate of gain than feeding hogs in drylot.

Prices of \$3.00 per bushel for corn and \$14.50 per hundredweight for soybean meal were used to obtain the feed costs shown in the annual enterprice budgets.

It is assumed that the feed is custom ground and mixed at a cost of \$4.50 per ton. Other operating costs including medical expenses, insurance, taxes, marketing costs and other items are based on the average costs from the 1978 and 1979 annual reports from the Minnesota Farm Management Associations.

Ownership costs assume an interest charge of 12 percent on the average investment for equipment and machinery. Depreciation is calculated on a straight line basis and assumes a useful life of 12 years for new construction and 7 years for remodeled items. Insurance and taxes on the equipment are 1.6 percent of the average investment. Machinery ownership costs are based on a 10 year ownership. Notice that no land charge is included for either the dirt lot or pasture finishing system. While it would be appropriate to include a land charge in the ownership cost section of the enterprise budget, the appropriate charge to include depends on the alternative uses for the land, and varies widely from one situation to another. Given this difficulty in estimating a land charge, a later section estimates the return to land for use in swine finishing. This value can be compared to returns from alternative uses to decide if land should be devoted to swine finishing systems A and B.

Net returns above costsshown are a measure of the profit and represent the residual return to labor, management and land. A comparison of total receipts, costs and net returns is provided in Table 57. Total gross receipts for System A, the pasture system and System B, the dirt lot, are identical. System C, which finishes two groups of feeder pigs, has total receipts approximately double that of the other systems. System A has the lowest operating cost, while System B has the lowest ownership cost. System C has the highest ownership and operating cost as would be expected.

System C is estimated to have substantially higher net returns than the other two operations, with System B showing lower net returns than System A under the stated assumptions. System C's relative profit over System B is the result of its advantage in both operating costs and ownership costs. System C has lower costs per hog finished for such operating inputs as veterinary and medicine expense, insurance, miscellaneous expense, fuel and equipment repairs. System C also has lower annual ownership costs than either System A or B, per hog finished. System A shows a higher net return than System B because A requires less protein feed.

Net returns per hour and net returns per hundred pounds of gain follow a similar pattern as net returns above costs shown. However, notice that System C does not enjoy quite the advantage over System A and B on a per hour basis because of the labor required by System C to handle manure.

Table 57. Summary of Average Annual Enterprise Budgets for the Three Finishing Systems

	System		
	A Pasture	B Dirt Lot	C Remodeled Building
Total Gross Receipts	$16,788.11	$16,788.11	$33,202.22
Total Operating Costs	15,138.29	15,645.41	29,548.90
Total Ownership Costs	958.41	746.92	1,082.75
Net Returns Above Costs Shown	691.41	395.78	2,570.57
Total Labor Hours	100 hours	100 hours	228 hours
Net Return Per Hour	6.91	3.96	11.27
Net Return Per Cwt. of Gain	2.84	1.63	5.28

The net return above costs shown is the return to land, labor and to management. The net returns are $395.78 for the dirt lot system, $691.41 for the pasture system, and $2,570.57 for finishing in the remodeled building. The remodeled structure requires a negligible amount of land for production. On the other hand, the dirt lot system and the pasture system require two and seven acres of pasture, respectively. This land will have uses other than raising hogs and this cost will affect the profit of these operations. Furthermore, the two systems use different amounts of land, suggesting the cost of land will affect their relative profitability. Figure 25 illustrates the effect of differing land costs on the net returns of the pasture system and the dirt lot operation. The analysis indicates the returns for the pasture system exceed the returns to a dirt lot operation when the land charge is less than $59 per acre. At a land charge above $59 per acre the dirt lot is more profitable then the pasture system.

The net returns of the dirt lot and pasture systems are not affected by energy prices since these systems will require little, if any, energy. System C, on the other hand, requires 490 KWH of electricity, 59.4 gallons of gasoline, and 72.6 gallons of diesel fuel; at a total annual cost of $230.89 under the assumed prices. If energy costs are doubled and tripled the net returns for System C would be reduced approximately $244.74 and $489.49 respectively, leaving net returns for System C still substantially above returns for Systems A and B.

Cash Flow Projections

Cash flows were projected to analyze the amount of capital that must be provided during the first years of operation for each system. These projected cash flows are based on Figure 26 which gives:

Figure 25. Net Returns for the Pasture System and Dirt Lot System at Various Prices for Land.

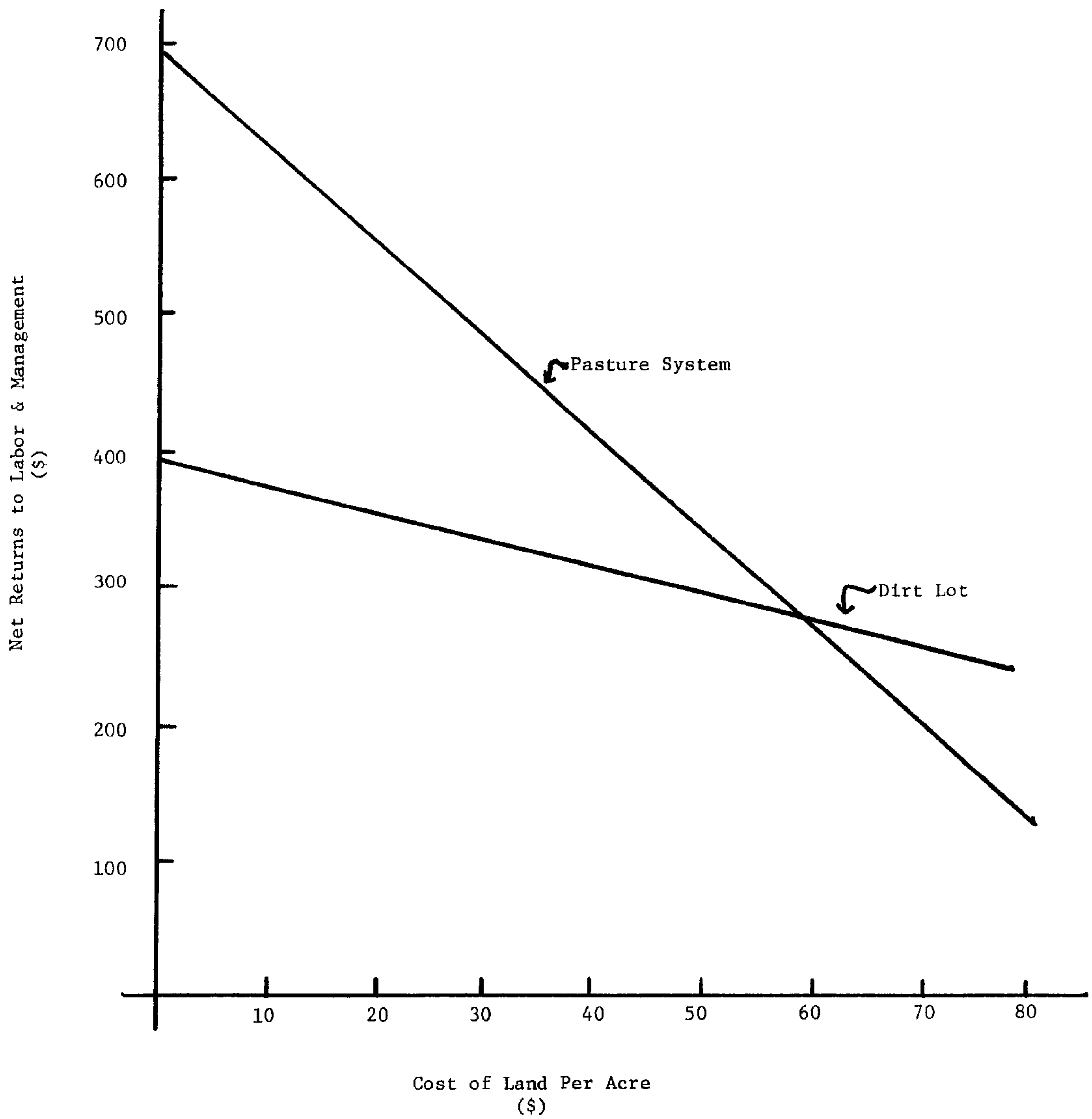


Figure 26 Construction and Production Calendar for the First Year for the Three Finishing Systems

Week of	Pasture System A: Construction	Pasture System A: Livestock	Dirt Lot System B: Construction	Dirt Lot System B: Livestock	Remodel Building C: Construction	Remodel Building C: Livestock
Jan. 3						
10						
17						
24						
31						
Feb 7						
14						
21						
28						
Mar 7						
14						
21					Remodel finishing building	
28	Build sun shades and fence		Build sun shades and fence			
Apr 4						Purchase 140 feeder pigs
11		Purchase 140 feeder pigs		Purchase 140 feeder pigs		
18						
25						
May 2						
9						
16						
23						
30						
June 6						
13						
20						
27						
July 4						
11						
18						
25						
Aug 1						Sell 136 slaughter hogs
8				Sell 136 slaughter hogs	Purchase machinery	
15						
22		Sell 136 slaughter hogs				
29						
Sept 5						
12						
19						
26						
Oct 3						Purchase 140 feeder pigs
10						
17						
24						
31						
Nov 7						
14						
21						
28						
Dec 5						
12						
19						
26						

(1) the construction and remodeling schedule for the three systems, and

(2) the production schedule for purchasing the feeder pigs and feeding them to market weight.

These schedules are interrelated, but much less complicated than the farrow-to-finish operations and the feeder pig production systems. The production calendar of Figure 24 indicates that the first group of feeder pigs for all systems is purchased in mid-April. Consequently, the construction of fences and sun shades for the dirt lot system and the pasture system are assumed to be completed by mid-April. Likewise the building for System C is remodeled in late March and early April. The manure handling equipment is purchased when it is time to use the items after the first group of hogs are sold for System C. Payment for materials are assumed to be made when those items are used.

Based on this schedule for construction and investment and the production calendar in Figure 26, detailed monthly cash flows are generated for the three finishing systems. Table 58 gives the projected cash flow for System C during its start up year. The first section of the cash flow shows gross receipts from the sale of slaughter hogs while section two records cash outlays for both operating expenses and investments in building and machinery investment.

Following the cash expense section is the flow of funds summary which determines the level of borrowing required monthly or the amount of loan repayment possible. If the current cash balance, derived from the beginning balance and cash difference, is positive, this money is used first to repay interest and the remaining amount is used to repay the loan principal. A negative current cash balance means that money must be borrowed to meet cash expenses. The first five months have expenses and no income. This results in borrowing each of these months. During August the slaughter hogs are sold providing funds for both interest and principal payments.

TABLE 58 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR HOG FINISHING, SYSTEM C IN FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	16788.	0	0	0	0	16788.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		0	0	0	0	0	0	0	16788.	0	0	0	0	16788.
CASH EXPENSES														
CORN	1.0	0	0	0	286.	805.	1082.	1232.	676.	0	311.	779.	1122.	6292.
SOYBEAN MEAL	1.0	0	0	0	164.	460.	412.	412.	226.	0	178.	445.	425.	2722.
MINERALS	1.0	0	0	0	8.	23.	31.	36.	20.	0	9.	23.	33.	183.
GRIND & MIX	1.0	0	0	0	15.	42.	53.	60.	33.	0	16.	41.	55.	315.
VET & MED.	1.0	0	0	0	54.	25.	25.	10.	0	0	54.	25.	25.	218.
ELECTRICITY	1.0	0	0	0	0	1.	4.	4.	3.	0	0	1.	4.	17.
INS. AND TAXES	1.0	0	0	0	0	0	0	145.	0	0	0	0	0	145.
HAULING & MKTG.	1.0	0	0	0	0	0	0	0	374.	0	0	0	0	374.
MISCL EXPENSE	1.0	0	0	0	10.	0	10.	10.	10.	0	30.	20.	30.	120.
FEEDER PIGS	1.0	0	0	0	8190.	0	0	0	0	0	0	0	0	8190.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	6573.	0	0	6573.
HAULING IN	1.0	0	0	0	42.	0	0	0	0	0	42.	0	0	84.
REMODEL BLDG	1.0	0	0	1956.	1956.	0	0	0	0	0	0	0	0	3912.
LOAD CHUTE	1.0	0	0	0	0	0	300.	0	0	0	0	0	0	300.
SORT CHUTE	1.0	0	0	0	0	0	145.	0	0	0	0	0	0	145.
FENCE	1.0	0	0	100.	0	0	0	0	0	0	0	0	0	100.
MANURE SPREADER	1.0	0	0	0	0	0	0	0	2000.	0	0	0	0	2000.
MANURE LOADER	1.0	0	0	0	0	0	0	0	3500.	0	0	0	0	3500.
EQUIP-LUB&REPAIR	1.0	0	0	7.	14.	14.	16.	16.	16.	16.	16.	16.	16.	147.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	0	0	87.	0	0	0	87.	175.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	0	0	6.	0	0	0	6.	13.
TOTAL		0	0	2063.	10739.	1370.	2078.	1924.	6951.	16.	7230.	1349.	1804.	35524.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	-2063.	-10739.	-1370.	-2078.	-1924.	9837.	-16.	-7230.	-1349.	-1804.	-18736.
=CURRENT CASH BALANCE	0	0	-2063.	-10739.	-1370.	-2078.	-1924.	9837.	-16.	-7230.	-1349.	-1804.	
+MONEY BORROWED	0	0	2063.	10739.	1370.	2078.	1924.	0	16.	7230.	1349.	1804.	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	9203.	0	0	0	0	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	635.	0	0	0	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1 ACCUMULATED BORROWING	0	0	2063.	12802.	14172.	16250.	18174.	8972.	8988.	16217.	17567.	19370.
-0ACCRUED INTEREST-JAN 1 ACCRUED INTEREST AT .12	0	0	0	21.	149.	290.	453.	0	90.	180.	342.	517.
0 ACCURED TOTAL DEBT-JAN 1 ACCUMULATED TOTAL DEBT	0	0	2063.	12822.	14320.	16540.	18627.	8972.	9077.	16397.	17908.	19888.

Borrowing and loan repayment are reflected in the current loan summary. The first line is the accumulated borrowing which is the sum of any accumulated debt from the previous month plus any additional borrowing for this month. The accrued interest is calculated based on an annual percentage rate of 12 percent. The sum of the accumulated borrowing for the month plus the accrued interest for the month gives the total accumulated debt at the end of the month.

The detailed cash flow projections for year one and year two for the three systems are given in Appendix F, Tables 107 through 111. Table 58 provides a comparison of the maximum accumulated debt levels for the three systems. The pasture system and dirt lot system obtain the maximum accumulated debt of $17,911 and $17,722, respectively, in July of the start-up year. The remodeled building system, which finishes two groups per year has the maximum debt of $21,881 at the end of January of year two. After all three systems reach these maximum debt levels there is a gradual decrease in the loan balance during the following years. Assuming no charge for labor, all systems completely retire the debt and accumulate enough cash balance to pay for the purchase of a group of feeder pigs without borrowing funds. System C reaches this point in approximately 6 years. Systems A and B reach this point after 12½ and 19 years, respectively. Subtracting a $5.00 per hour charge for the labor increases the length of payback to 9½ years for System C, to 30 years for System A and over 75 years for System B.

Table 59. The Total Accumulated Debt and the Approximate Number of Years Required to Repay the Total Investment with Earnings from the System.

	System		
	A	B	C
Total Accumulated Debt			
Maximum Amount	17,911	17,722	21,881
Month during which maximum occurs	July-Year One	July-Year One	January-Year Two
Approximate Length of Payback in Years			
No Labor Charge	12½	19	6
With Labor Charge $5.00 per hour	30	75+	9½

REFERENCES

[1] "Agricultural Prices - Annual Summary", Crop Reporting Board; Economics, Statistics and Cooperatives Service, U.S. Department of Agriculture, Washington, D.C.

[2] "Annual Reports of the Southwestern Minnesota Farm Management Association", Department of Agricultural Economics, University of Minnesota, St. Paul, Minnesota, 1974-1980.

[3] Babcock Swine, Inc., Confinement Swine Manager's Training Notebook, Rochester, Minnesota, 1978.

[4] Bache, D. H. and J. R. Foster, "Pork Production Systems With Business Analyses: The Low-Investment Low-Intensity Confinement System (Farrow-to-Finish)," Cooperative Extension Service, Purdue University, West Lafayette, Indiana, 1976a.

[5] Bates, D. W. and H. A. Cloud, Energy Requirements of Electrical Equipment, Agricultural Engineering Fact Sheet No. 1, University of Minnesota, 1977.

[6] Carlisle, G. R., "How Much Is Pasture Worth?", National Hog Farmer, Swine Information Service, Bulletin No. A26, May 1966.

[7] Eidman, V. R. and D. D. Greene, "An Economic Analysis of Three Confinement Hog Finishing Systems", Station Bulletin 535, Agricultural Experiment Station, University of Minnesota, St. Paul, Minnesota, 1980.

[8] "Farmers Tax Guide", Publication 225, Internal Revenue Service, Department of the Treasury, Washington, D.C., October 1979.

[9] Greene, D. D. and V. R. Eidman, "An Economic Analysis of Three Confinement Farrow-to-Finish Production Systems", Station Bulletin 533, Agricultural Experiment Station, University of Minnesota, St. Paul, Minnesota, 1979.

[10] Greene, D. D. and V. R. Eidman, "An Economic Analysis of Three Confinement Feeder Pig Production Systems", Station Bulletin 534, Agricultural Experiment Station, University of Minnesota, St. Paul, Minnesota, 1980.

[11] Hasbargen, P. R., et al., "Hog Producers Planning Guide", Farm Management Service, FM-503, Agricultural Extension Service, University of Minnesota, St. Paul, Minnesota, December 1980.

[12] Hawton, J. D. and C. J. Christians, "Herd Boar Management", Extension Folder 279, Agricultural Extension Service, University of Minnesota, St. Paul, Minnesota, 1973.

[13] Hawton, J. D. and R. J. Meade, "Feeding and Managing Baby Pigs", Extension Bulletin 370, Agricultural Extension Service, University of Minnesota, St. Paul, Minnesota, 1972a.

[14] Hawton, J. D. and R. J. Meade, "High Lysine Corn for Swine", Animal Science Fact Sheet, Number 25, Agricultural Extension Service, University of Minnesota, 1973.

[15] Hawton, J. D. and R. J. Meade, "Nutrition of Bred Sows and Gilts", Animal Science Fact Sheet, Number 14, Agricultural Extension Service, University of Minnesota, St. Paul, Minnesota, 1972b.

[16] Hinton, R. A., "The Economics of Labor and Choice of Swine Housing", unpublished Ph.D. thesis, University of Minnesota, 1968.

[17] "Livestock and Waste Facilities Handbook", Midwest Plan Service-18, Iowa State University, Ames, Iowa, February 1976.

[18] "Livestock-Meat-Wool", Market News, Weekly Summary and Statistics, Livestock, Poultry, Grain and Seed Division, Agricultural Marketing Service, U.S. Department of Agriculture.

[19] "Minnesota Agricultural Statistics 1979", Minnesota Crop and Livestock Reporting Service, U.S. Department of Agriculture, Economics, Statistics and Cooperative Service in cooperation with Minnesota Department of Agriculture, June 1980.

[20] "Minnesota Farm Planning Prices", Department of Agricultural and Applied Economics, University of Minnesota, October 1979 (mimeo).

[21] "Structures and Environment Handbook", Midwest Plan Service-1, Iowa State University, Ames, Iowa, September 1977.

[22] "Swine Handbook: Housing and Equipment", Midwest Plan Service-8, Iowa State University, Ames, Iowa, April 1976.

[23] Van Arsdall, Roy N., "Resource Requirements, Investments, Costs, and Expected Returns from Hog Production Systems in Illinois", AE-4074, Illinois Experiment Station in cooperation with ERS, USDA, 1965.

[24] White, R. K. and D. L. Forester, "Evaluation and Economic Analysis of Livestock Waste Management Systems", EPA-600/2-78-102, National Technical Information Service, May 1978.

[25] "Wisconsin Feeder Pig Marketing Co-op Litter-ature", Wisconsin Feeder Pig Marketing Cooperative, Francis Creek, Wisconsin.

APPENDIX A

Description, Layout and Materials for Buildings and Structures

Farrowing System 1a

This farrowing setup will be a pasture system. The pasture should be selected in an area to provide adequate drainage, shade and water. Two pasture areas will be fenced off and will be used in a rotation to help prevent soil vegetation from becoming destroyed. The pasture will be fenced as shown in Figure 2, to provide rotation space, a boar pen and an area for extra sows and replacement gilts. Shelter for the sows during farrowing will be provided by individual A-frame huts set in the pasture. Sixteen huts will be required.

Space required for 18 sows = 3 acres

Fencing required: 3240 feet, this fence should be 36" to 42" high.
posts are needed every 8'; therefore, at least 405 are required.

Waste Handling

There will be no floor in the huts and they will be dragged to a new location between farrowings.

A-frames must not be located on low ground; good drainage should be provided.

Runoff from the pasture area should be controlled in compliance with Pollution Control Agency regulations.

A harrow may be used to groom the pasture between litters.

Ventilation - natural ventilation

Feeders

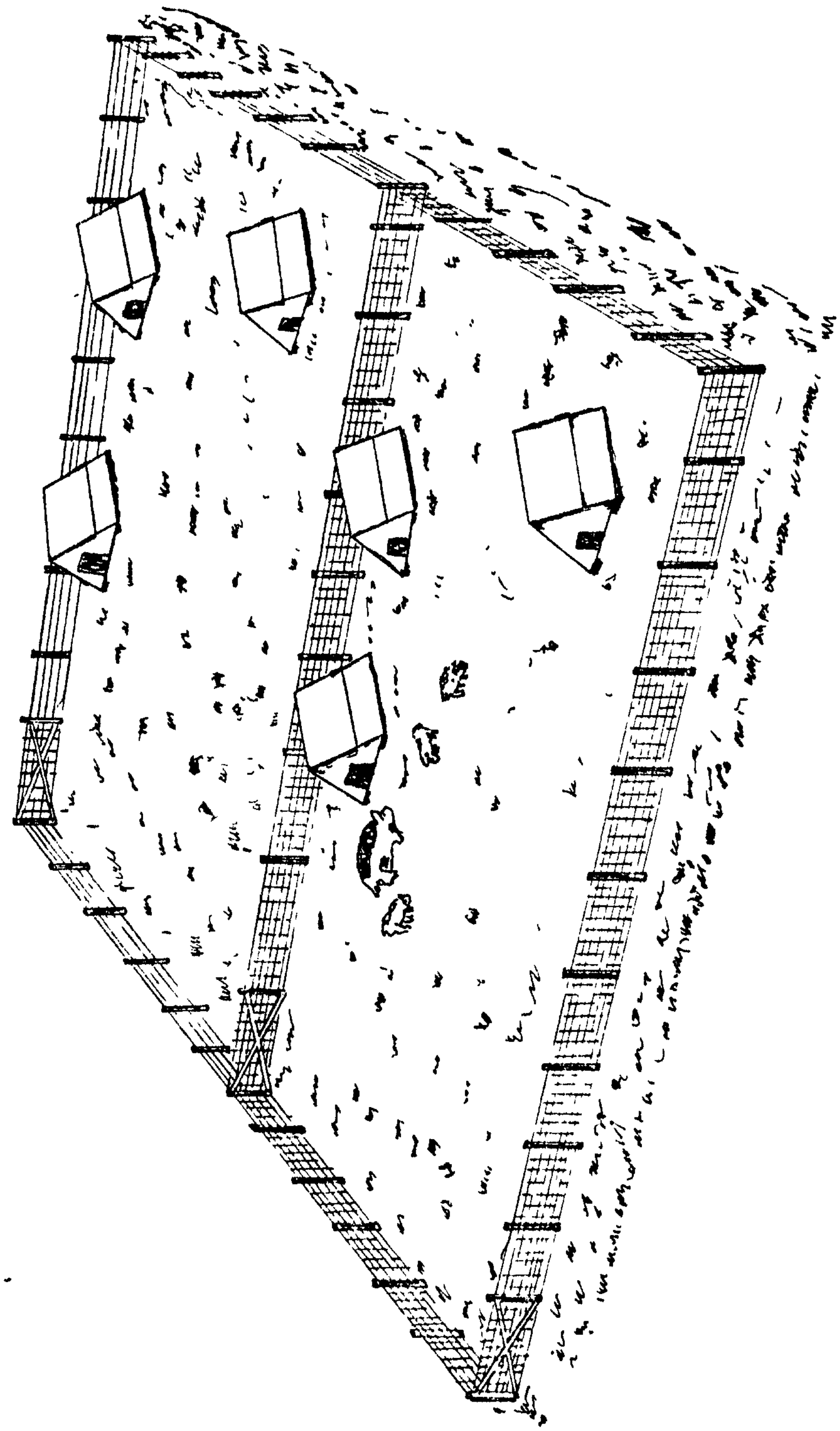
32 feet of trough space must be provided for the sows (@ $55 = $110). This can be accomplished with 2-8 ft. double trough feeders. 2-2 ft. trough feeders are required for the boars and extra pen (@ $14 = $28).

Waterers

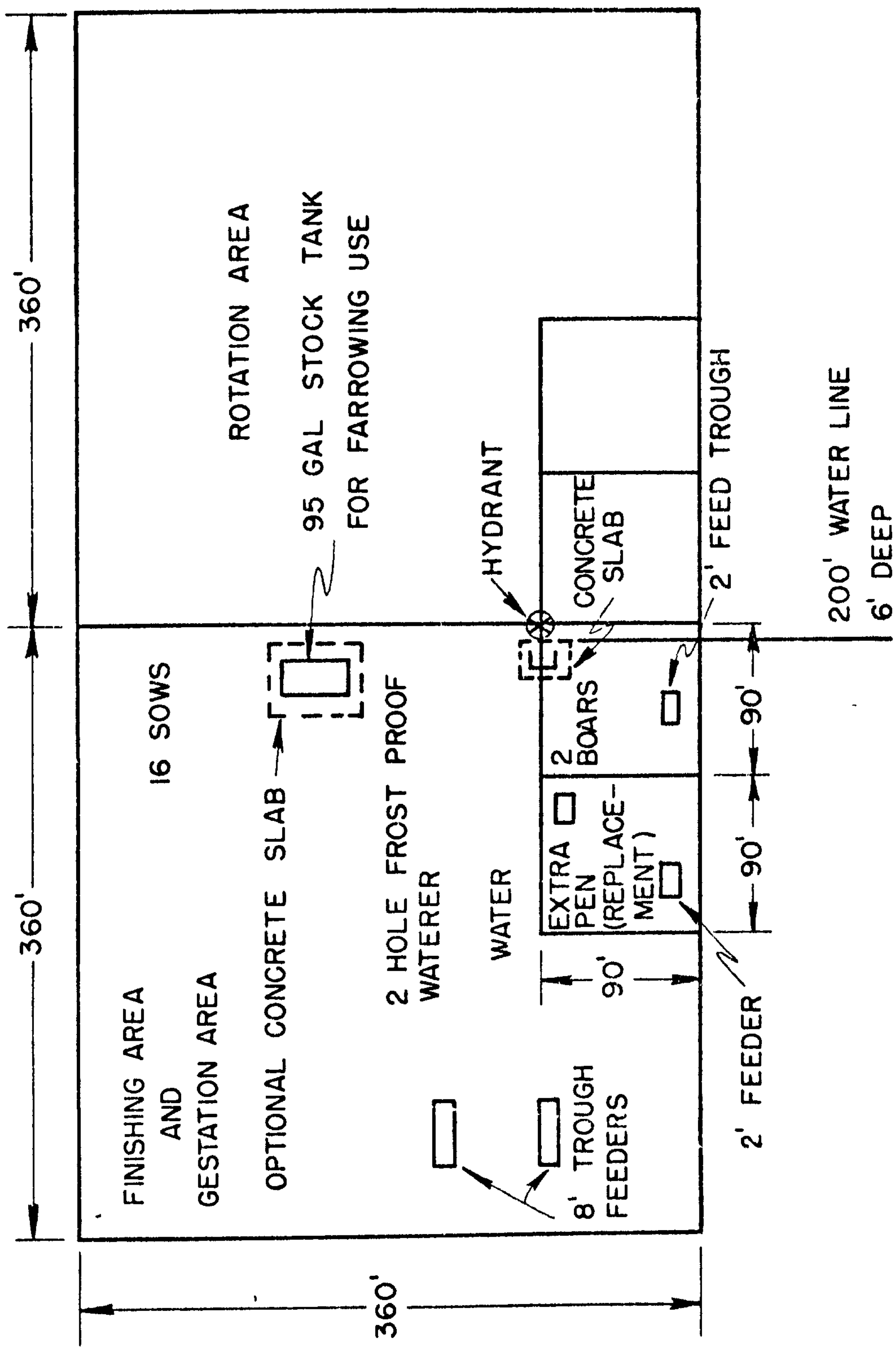
Sows -- 2 feet of water space needed; use a 95 gallon stock tank (2' x 2' x 4') @ $73
Extra pen -- use a 2-foot trough @ $11
Piglets -- 8 pig cups or pans are required for piglets after weaning (@ $8 = $64)

All of these waterers will only be used during warm weather so they do not need to be frost-proof.

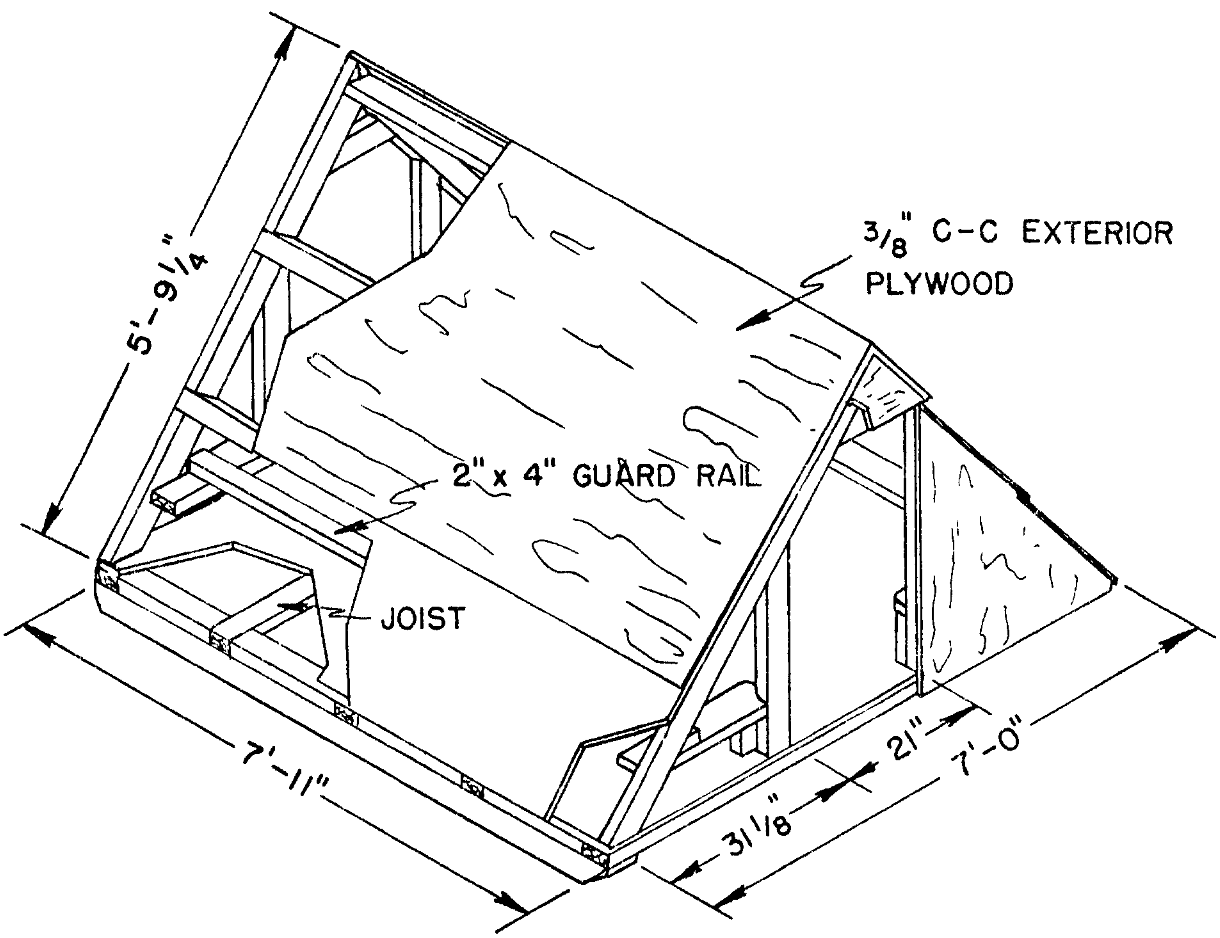
PASTURE SYSTEM



FARROWING SYSTEM I



A-FRAME FARROWING SHELTER



List of Materials - Portable A-Frame Building (MWPS 72630)
(No floor plywood or floor joists)

Item	No.	Description
Skid	2	4" x 4" x 8'
Rafter	4	2" x 4" x 5'9 1/4"
Purlin	4	2" x 4" x 7'-11"
Ridge	1	2" x 4" x 7'-7 3/4"
Stud	4	2" x 4" x 35"
Guard Rail	2	2" x 4" x 7'-11"
	4	2" x 6" x 2'
Ventilator	4	2" x 2" x 18"
Blocking Under Guard Rail	4	2" x 6" x 8"
Ridge Roll	Metal	8 ft.
Plywood	4 sheets	3/8" x 4' x 8' C-C, Ext.

Cost = $115

Farrowing System 1b

This farrowing setup will be a pasture system. The pasture should be selected in an area to provide adequate drainage, shade and water. Two pasture areas will be fenced off and will be used in a rotation to help prevent soil vegetation from becoming destroyed. The pasture will be fenced as shown in Figure , to provide rotation space, a boar pen and an area for extra sows and replacement gilts. Shelter for the sows during farrowing will be provided by individual A-frame huts set in the pasture. Sixteen huts will be required. Provide 2 portable nursery shelters for the fall piglets.
Space required for 18 sows = 3 acres

Fencing required: 3240 feet, this fence should be 36" to 42" high
posts are needed every 8', therefore at least 405 are required

Waste Handling

There will be no floor in the huts and they will be dragged to a new location between farrowings.

A-frames must not be located on low ground; good drainage should be provided.

Runoff from the pasture area should be controlled in compliance with Pollution Control Agency regulations.

A harrow may be used to groom the pasture between litters.

Ventilation - natural ventilation

Feeders

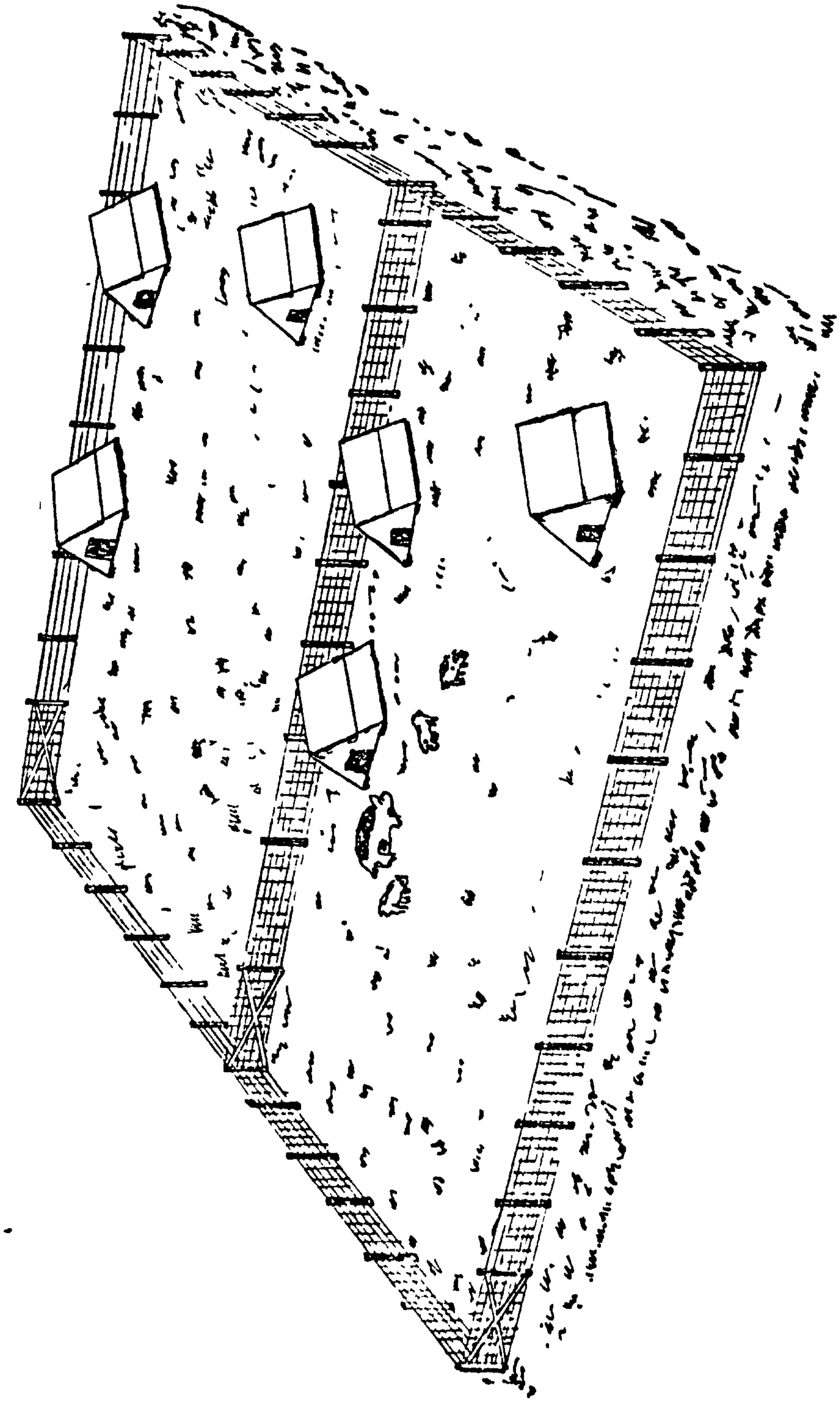
32 feet of trough space must be provided for the sows (@ \$55 = \$110). This can be accomplished with 2-8 ft. double trough feeders. 2-2 ft. trough feeders are required for the boars and extra pen (@ \$14 = \$28).

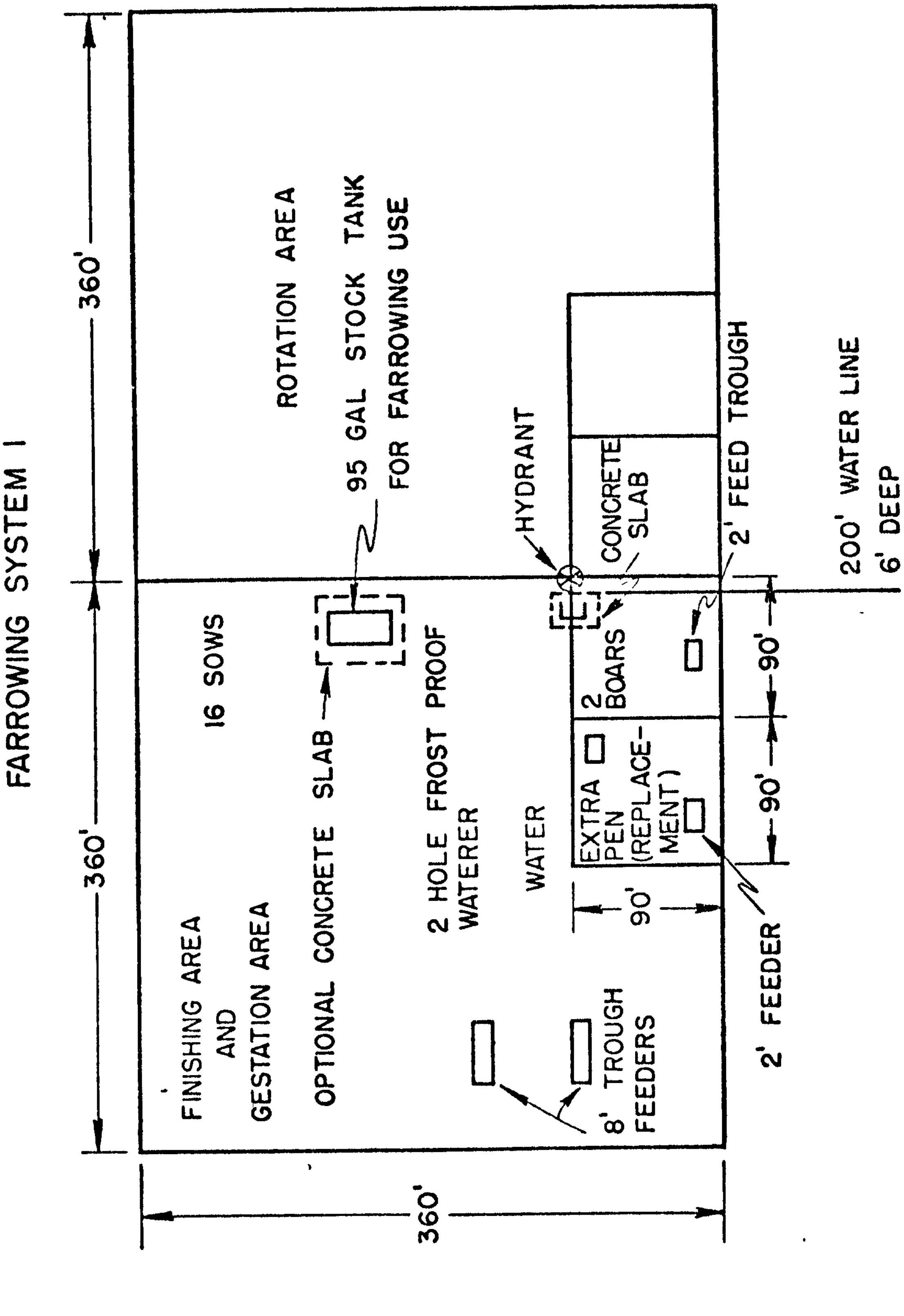
Waterers

Sows -- 2 feet of water space needed; use a 95 gallon stock tank (2'x2'x4') @ \$73
Extra pen -- use a 2-foot trough @ \$11
Piglets -- 8 pig cups or pans are required for piglets after weaning (@ \$8 = \$64)

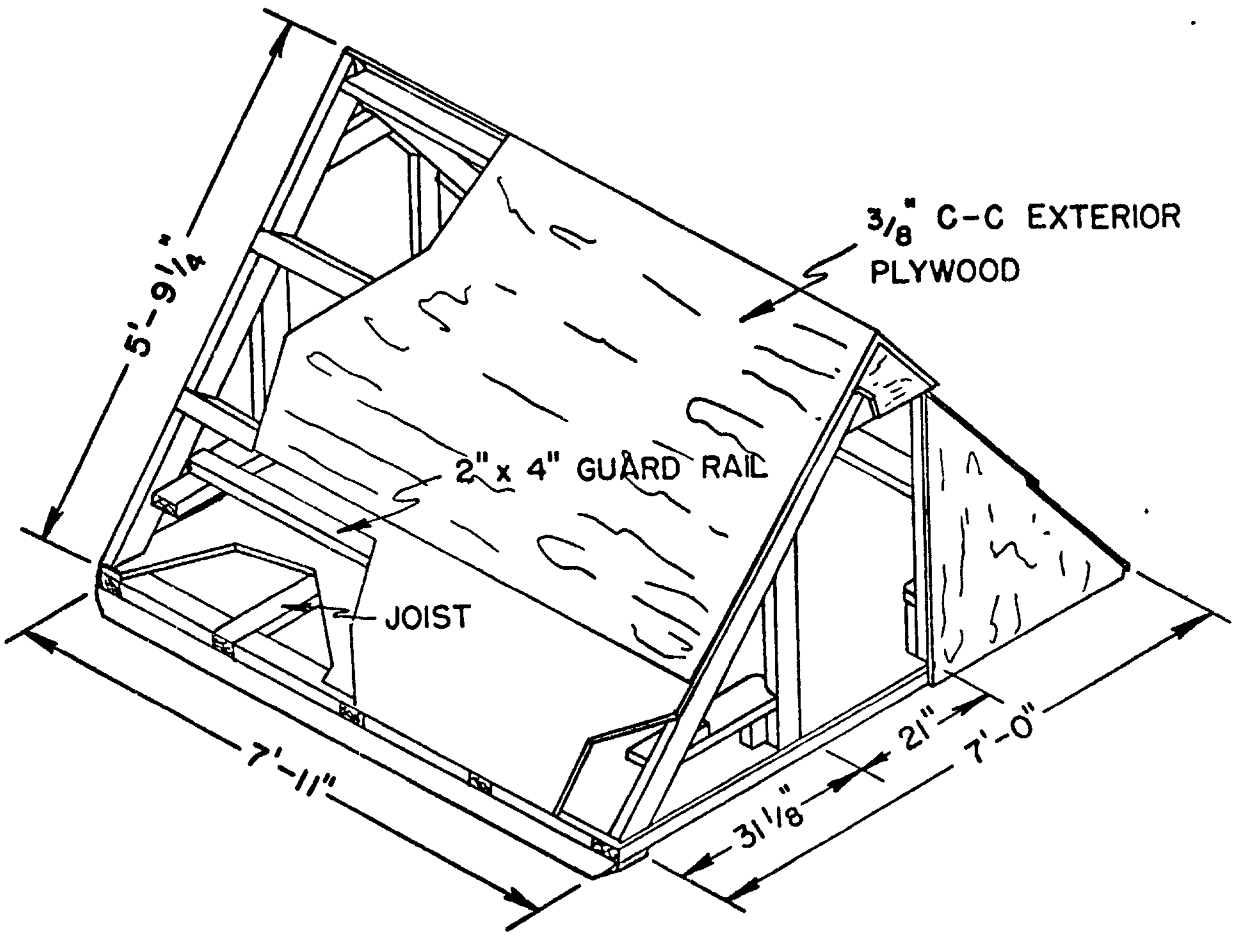
All of these waterers will only be used during warm weather so they do not need to be frost-proof.

PASTURE SYSTEM




FARROWING SYSTEM I
360'
360'
360'
ROTATION AREA
95 GAL STOCK TANK
FOR FARROWING USE
HYDRANT
CONCRETE
SLAB
2' FEED TROUGH
200' WATER LINE
6' DEEP
16 SOWS
OPTIONAL CONCRETE SLAB
2 HOLE FROST PROOF
WATERER
WATER
2
BOARS
EXTRA
PEN
(REPLACE-
MENT)
90'
90'
90'
2' FEEDER
FINISHING AREA
AND
GESTATION AREA
8' TROUGH
FEEDERS

A-FRAME FARROWING SHELTER

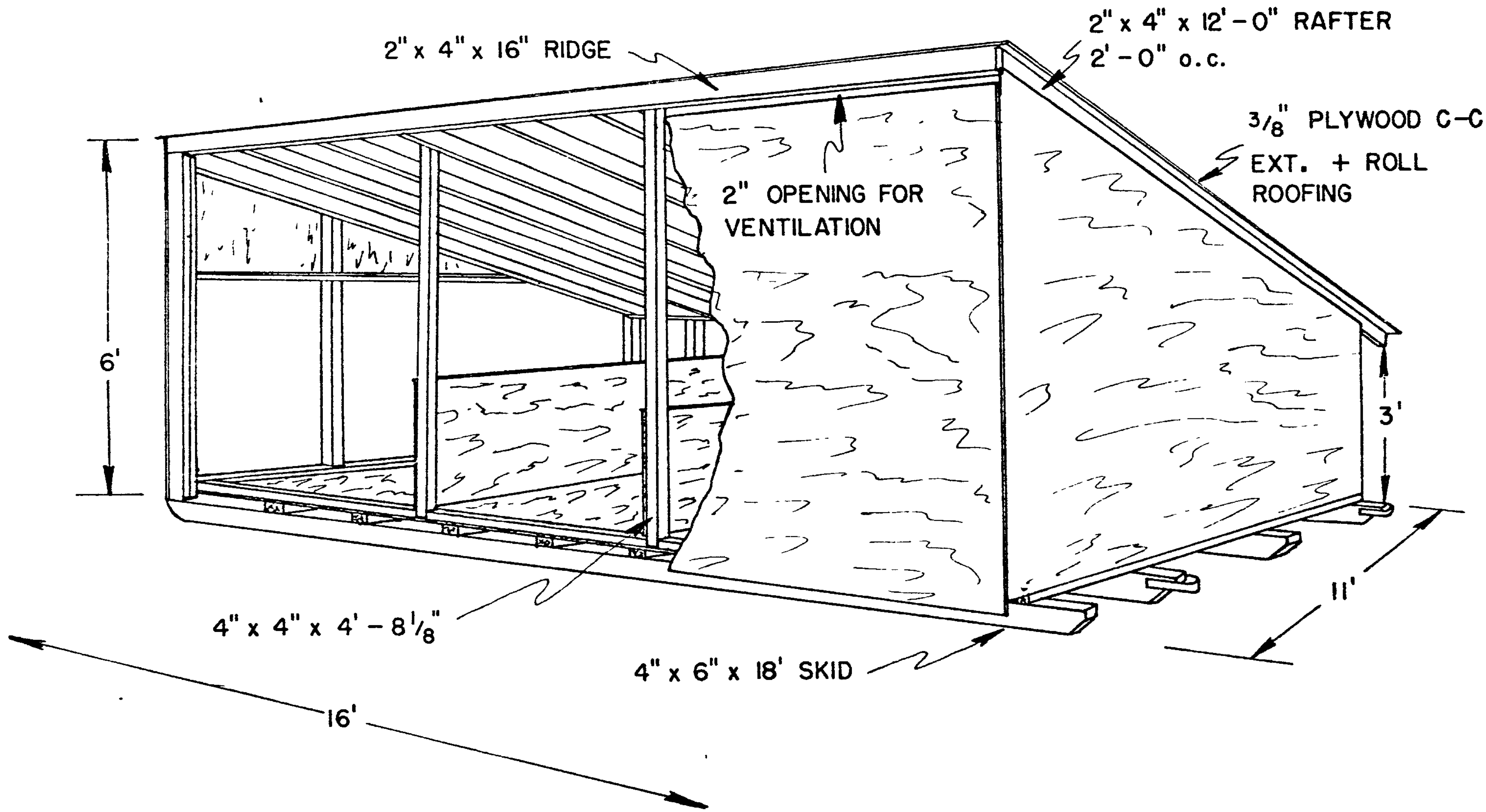


List of Materials - Portable A-Frame Building (MWPS 72630)
(No floor plywood or floor joists)

Item	No.	Description
Skid	2	4" x 4" x 8'
Rafter	4	2" x 4" x 5'9 1/4"
Purlin	4	2" x 4" x 7'-11"
Ridge	1	2" x 4" x 7'-7 3/4"
Stud	4	2" x 4" x 35"
Guard Rail	2	2" x 4" x 7'-11"
	4	2" x 6" x 2'
Ventilator	4	2" x 2" x 18"
Blocking Under Guard Rail	4	2" x 6" x 8"
Ridge Roll	Metal	8 ft.
Plywood	4 sheets	3/8" x 4' x 8' C-C, Ext.

Cost = $115

PORTABLE NURSERY FOR FARROWING SYSTEM 1B



List of Materials - Portable Nursery (MWPS 72630)
Size of building is 8' x 16'

Item	Description	No.	Unit Cost	Total
Skid	4" x 6" x 18"	3	$21.60	$ 64.80
Joist	2" x 4" x 8'	8	1.90	15.20
	2" x 4" x 10'-8 3/8"	1	2.60	2.60
Sill (Blocking)	2" x 4" x 18'	3	5.20	15.60
Studs	2" x 4" x 5'-8 3/8"	2	1.40	2.80
	2" x 4" x 4'-8 1/8"	10	1.19	11.90
	2" x 4" x 4'	2	.95	1.90
	2" x 4" x 2'-9 3/4"	11	.71	7.81
Plate	2" x 4" x 16'	2	4.62	9.24
Rafters	2" x 4" x 12'	9	3.47	31.23
Blocking	2" x 4" x 16'	3	4.62	13.86
Ridge	2" x 4" x 16'	1	4.62	4.62
Facia	1" x 4" x 16'	1	2.40	2.40
Nailing Girts	2" x 4"	(total) 24 ft	6.93	6.93
C-C Ext. Plywood				
roof	1/2" x 4' x 8'	6 sheets	16.64	99.84
floor	3/4" x 4' x 8'	4 sheets	22.75	91.00
back	3/4" x 4' x 8'	2 sheets	22.75	45.50
sides	3/4" x 4' x 8'	4 sheets	22.75	91.00
front	3/4" x 4' x 8'	6 sheets	22.75	136.50
				$ 654.73
			plus 20% misc.	785.68
For 128 piglets, 2 of these units are needed.			Total Cost	1571.35

Farrowing System 2

An old building will be remodeled and used for farrowing. This building will be an uninsulated shell such as a grainery or garage. The building may have a concrete floor making manure removal easier. Operator made, wooden farrowing crates will be used since they are more space efficient than pens. If desired, a farrowing pen 4 1/2' x 10' may be used.

Building Dimensions

Most old garages and poultry buildings would be too small to house 16 sows, so two buildings will be remodeled to hold 8 sows each. These will have dimensions of 16' x 28'.

Nursery - with 2 litters/yr the farrowing room can be used for the nursery.

Waste Handling

Bedding will be used and the waste will be handled as a solid with a shovel and wheel barrow. A loader may also be used to move wastes to a solid manure spreader.

Ventilation

This building will be naturally ventilated. Air circulation fans may be needed during hot weather. No supplemental heat will be required.

Remodeling Costs per Building

Plywood will be added 4' up the walls to protect the walls from the animals.

12 sheets of 3/4" x 4' x 8' plywood will be needed for each building @ \$22.75 = \$273.

8 wooden farrowing crates @ \$100 = \$800. These crates have feeders and waterers.

Heating - 6-250 Watt heat lamps at \$15.00 = \$90

Electrical - wiring

3-100 Watt lights, enclosed fixtures @ \$8.50 = \$25.50

30 amp, main switch - fuse box - \$6.50

nonmetallic, dust and water tight outlets - 10 @ \$10.00 = \$100

Use type U.F. cable for inside circuits ≈ (100 ft)(\$350/1000 ft) = \$35

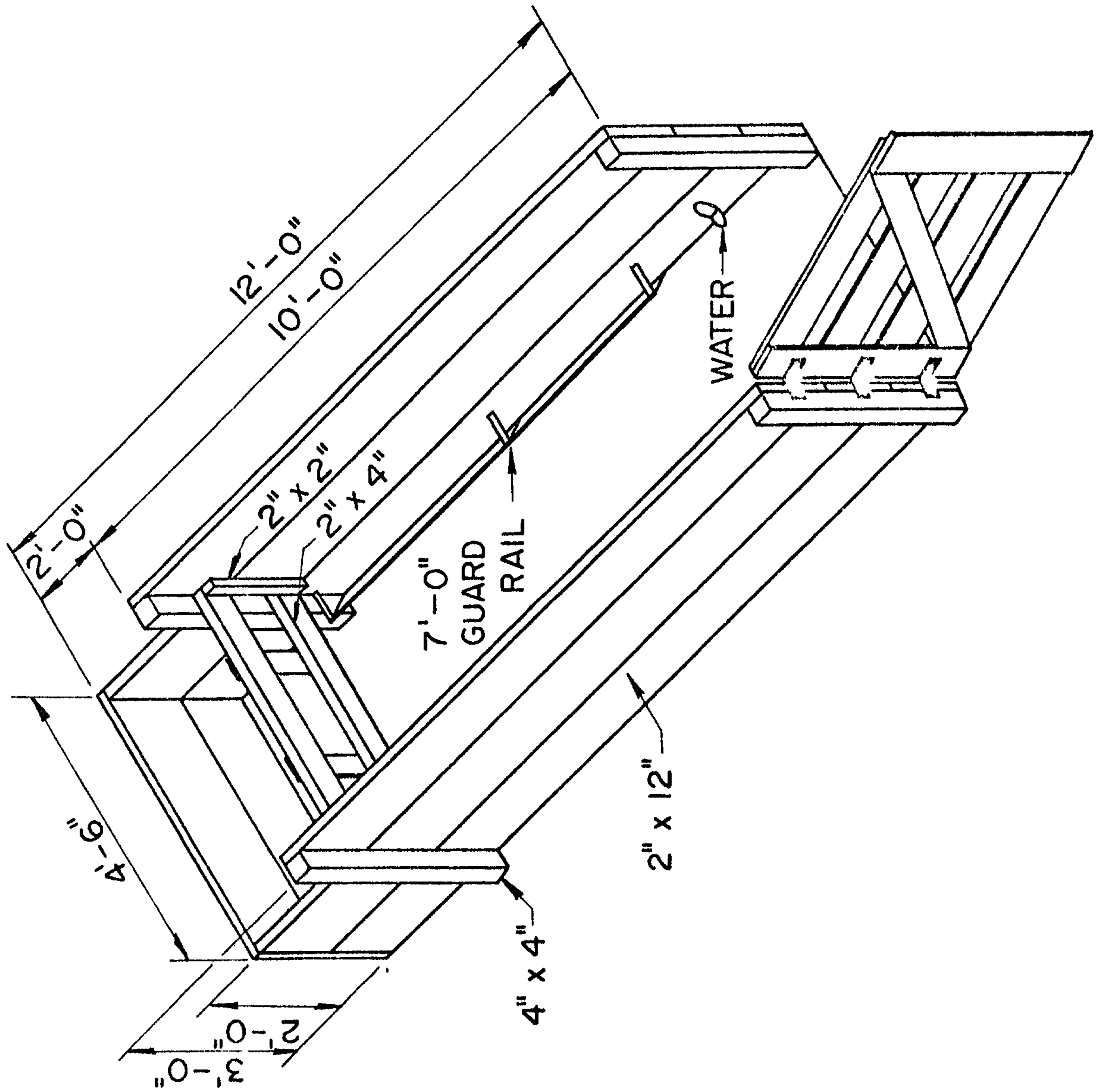
Use AWG 8 feeder circuit cable: type SE, style R with XHHW conductors 220 ft or type PWC with THW conductors ≈ (220 ft)(\$786/1000 ft) = \$173

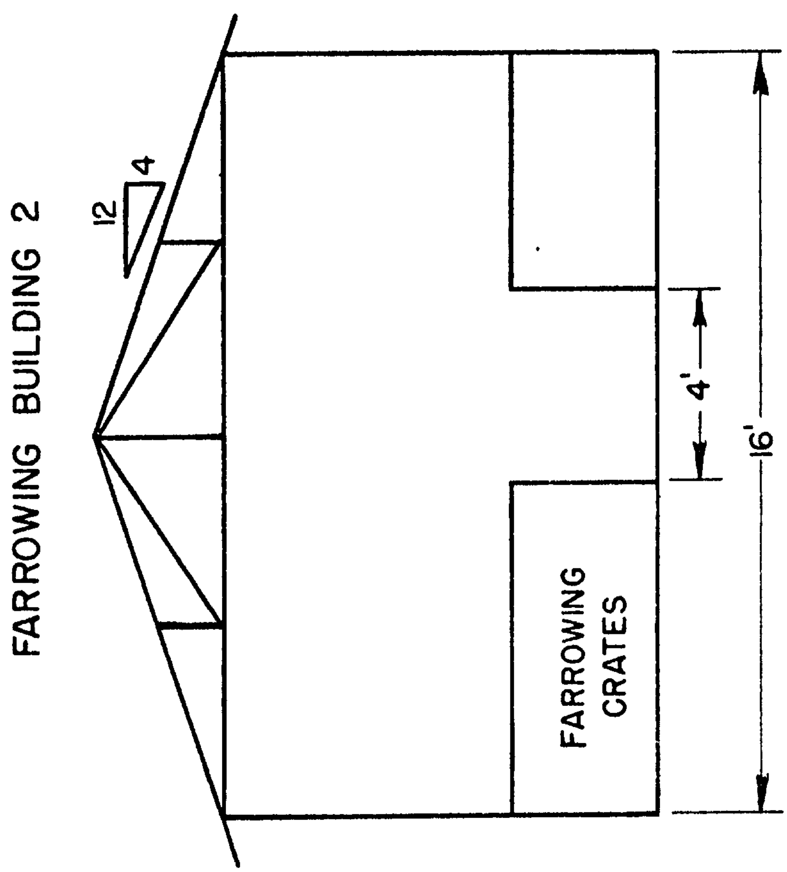
Trenching to buy lines - lines will be buried with water line.
1" plastic conduit (\$42/100 ft)(220 ft) = \$92.4 Total = 432.4 + 20% = \$519

Plumbing

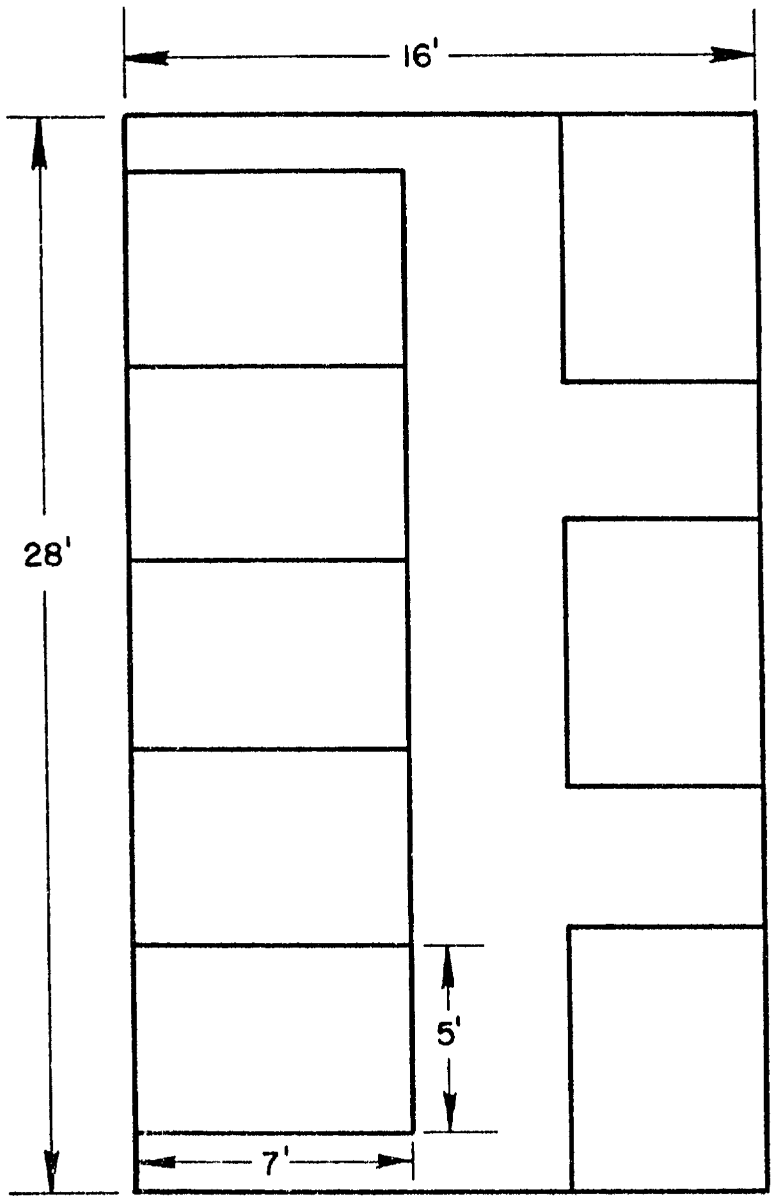
This building will have a frost-proof water hydrant--3/4" hydrant costs approximately \$42.00. 6'deep,, 200 ft. trench @ \$3.00/ft. = \$600.
280' of 3/4" plastic pipe @ \$.10/ft. = \$28.00

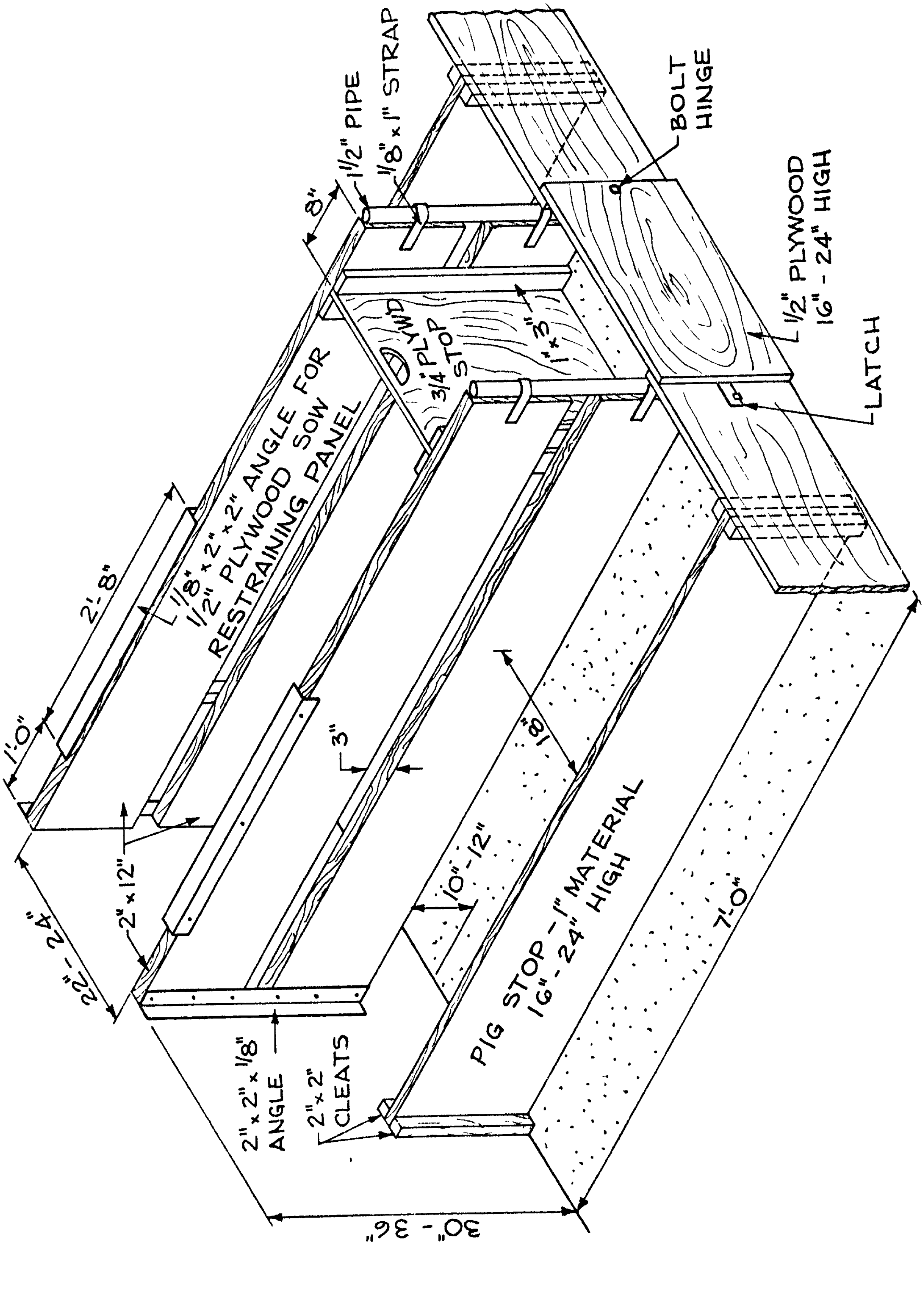
Total = 670 + 20% = \$804


12'-0"
10'-0"
2'-0"
2" x 2"
2" x 4"
7'-0"
GUARD
RAIL
WATER
2" x 12"
4" x 4"
4'-6"
2'-0"
3'-0"


FARROWING BUILDING 2
12
4
FARROWING
CRATES
4'
16'

FARROWING BUILDING 2 & 3




1 1/2" PIPE
1/8" x 1" STRAP
8"
BOLT
HINGE
1/2" PLYWOOD
16" - 24" HIGH
LATCH
1/8" x 2" x 2" ANGLE FOR
1/2" PLYWOOD SOW
RESTRAINING PANEL
3/4" PLYWD
STOP
1" x 3"
2'-8"
1'-0"
3"
18"
2" x 12"
22" - 24"
10" - 12"
PIG STOP - 1" MATERIAL
16" - 24" HIGH
7'-0"
2" x 2" x 1/8"
ANGLE
2" x 2"
CLEATS
30" - 36"

List of Materials - Farrowing Crate

Item	No.	Description
Pig Stop	4	1" x 8" x 7'
Sow Retaining Panel	4	2' x 12" x 7'
Cleats	8	2" x 2" x 16"
	8	2" x 2" x 3'
Plywood	1	1/2" x 2' x 5'
	1	1/2" x 2' x 5'
Supports	2	1 1/2" pipe x 4'

Cost:	$75.00	+	7.00	+	14.00	≃	$100
	(materials)		(water cup)		(feeder)		

Farrowing System 3

This will be the same building as system 2 with the addition of insulation and mechanical ventilation.

Building Dimensions

Farrowing - 2 modeled buildings at 16' x 28'
Nursery - with 4 litters/yr. The farrowing room can be used for the nursery.

Remodeling Costs per Building

Wall area = 704 ft^2
from remodeling costs sheet (Page) - remodeling walls = $.89/$ft^2$
cost for walls = $626.56 per building

Ceiling area = 448 ft^2
from remodeling costs sheet - remodeling ceilings = $.82/$ft^2$
cost for ceiling = $367.36

Total cost for ceiling and walls = $993.92

Optional concrete slab: 16' x 28' = 448 ft^2
from remodeling costs sheet - 4" slab = $.48/$ft^2$
reinforcing costs = $.10/$ft^2$

Total cost = $44.8

8 wooden farrowing crates @ $100 = $800

Electrical - wiring

3-100 Watt, enclosed light fixtures @ $8.50 = $25.50
30 amp, main switch fuse box 6.50
nonmetallic dust and water tight outlets - 10 @ $10 = $100
Use type U.F. cable for inside circuits ≈ 100 ft = $35.00
Feeder circuit cable: Use AWG 8, type PWC with THW conductors 220 ft @ $.79/ft = $174
Trenching to bury lines - bury electric lines with plumbing lines
220' of 1" plastic conduit @ $.42/ft. = $92.40

Total cost = $433.40 + 20% = $520

Plumbing - must have frost proof lines, the main line must be buried 6 ft below grade.
cost for trenching 6 ft. deep by 200 ft. long trench @ $3/ft = $500
3/4" plastic pipe 220 ft @ $.10/ft = $22
3/4" hydrant @ $42.00

Total = 664 + 20% = $810

Ventilation (recommendations for nursery pigs since this ventilation rate is greater than required for farrowing and farrowing room will be used as a nursery)
Ventilation rates: winter minimum = 160 cfm
winter normal = 1200 cfm
summer = 2880 cfm

Farrowing System 3 - Continued

fans required: 1 - 160 cfm at 1/8" static pressure @ $200
1 - 1040 cfm at 1/8" S.P. @ $235
1 - 1680 cfm at 1/8" S.P. @ $315
Total = $750

slot inlets: summer - provide 21 ft of 1" slot along both 28' sides
winter - provide 9 ft of 1" slot along both 28' sides

louver area: 6 ft^2, cover with 1" mesh screen to keep birds out

Supplemental Heat

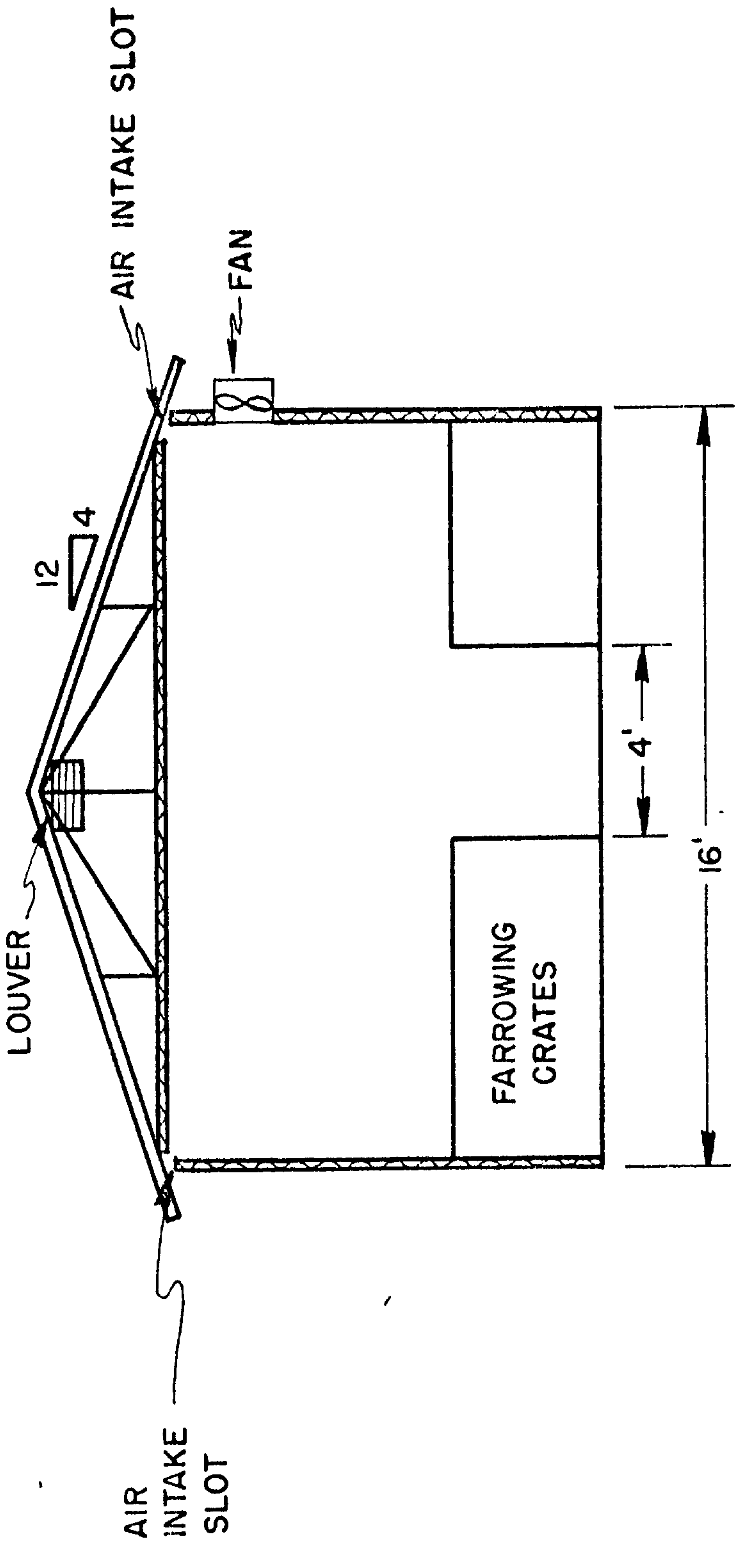
3000 BTU/hr are required per sow and litter
therefore, a 24,000 BTU/hr unit is needed
a 40,000 BTU/hr unit costs $260

Creep heat - provided by 7-250 Watt heat lamps @ $15 = $105

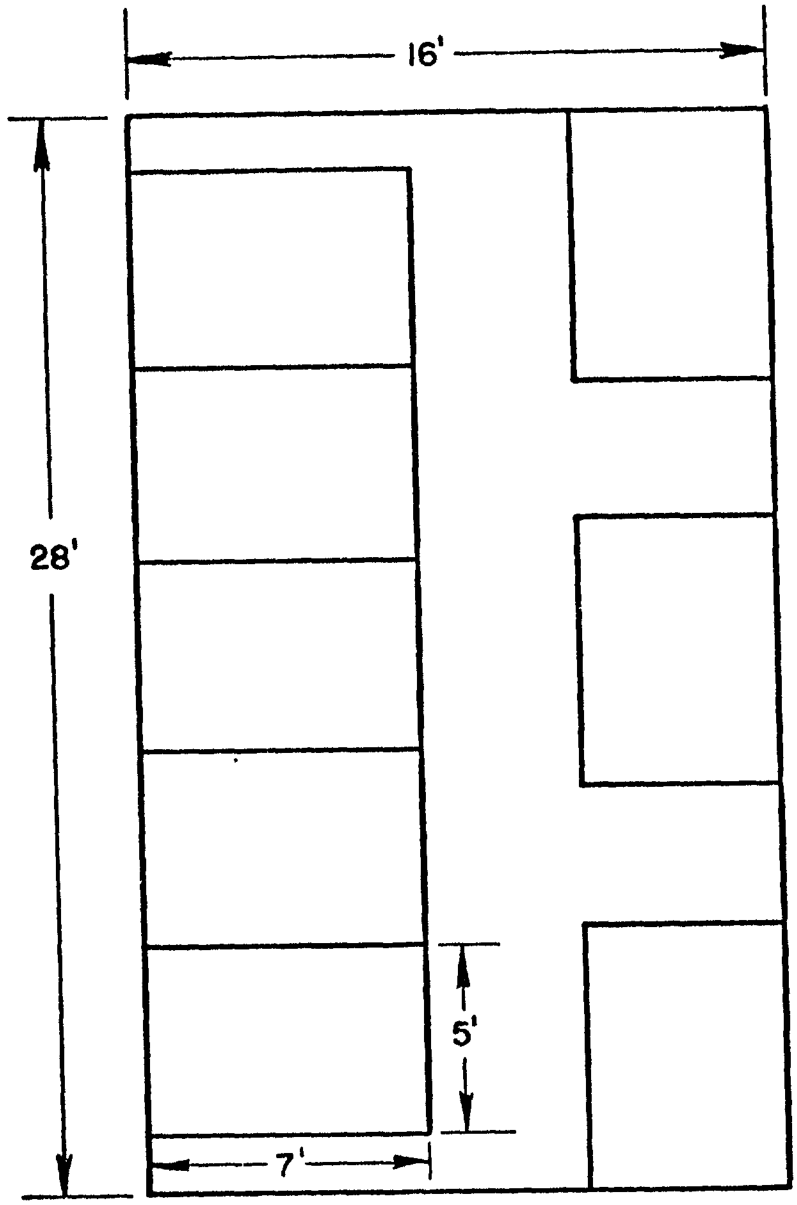
Waste Handling

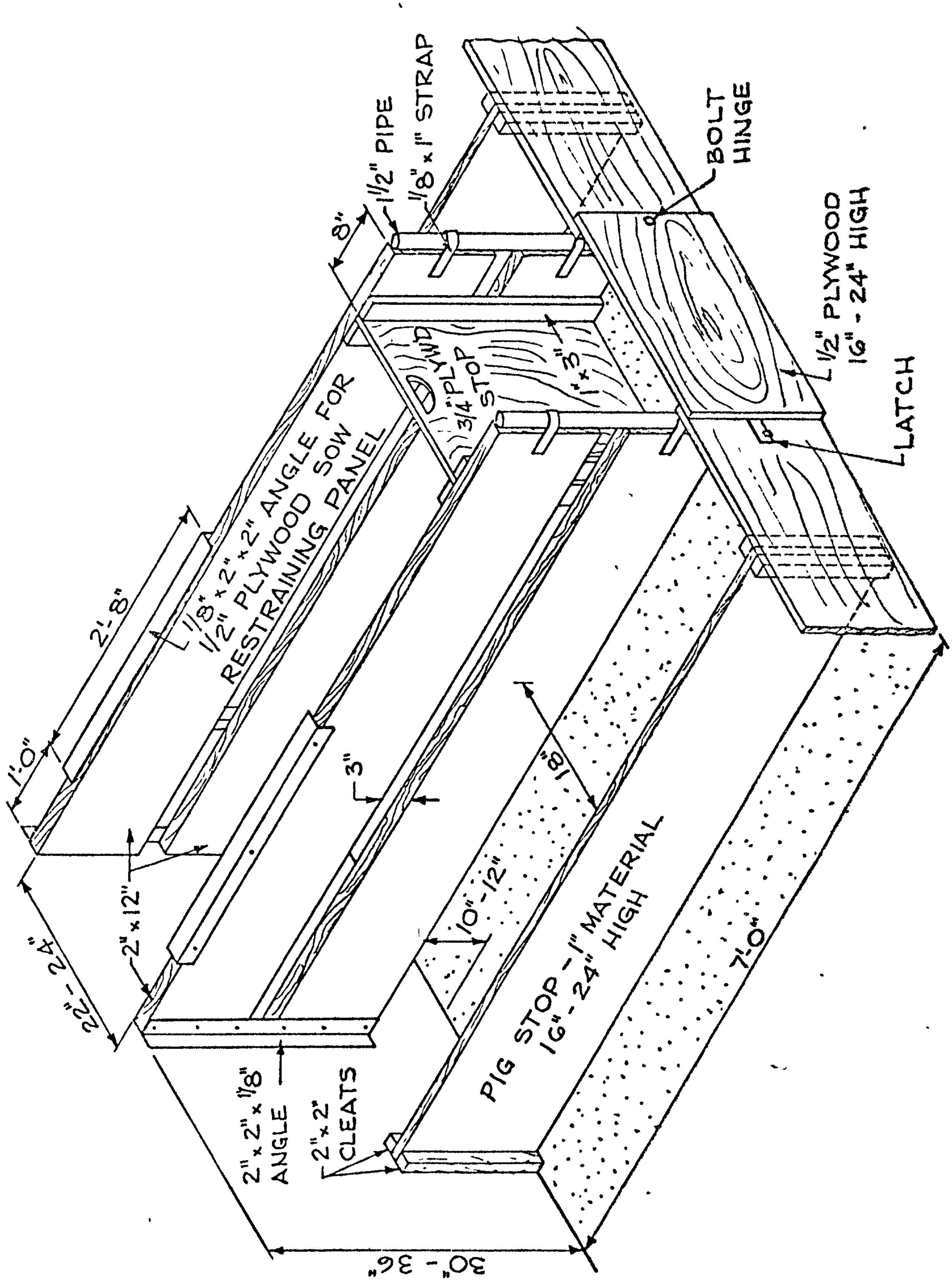
Bedding will be added so the waste can be handled as a solid. Scrape manually to alleys, use a wheel barrow to remove waste from the building. A dry manure spreader will be used to spread manure onto the fields.

FARROWING BUILDING 3



FARROWING BUILDING 2 & 3





1 1/2" PIPE
1/8" x 1" STRAP
8"
BOLT
HINGE
1/2" PLYWOOD
16" - 24" HIGH
LATCH
3/4" PLYWD STOP
1" x 3"
1/8" x 2" x 2" ANGLE FOR
1/2" PLYWOOD SOW
RESTRAINING PANEL
2'-8"
1'-0"
3"
18"
2" x 12"
22" - 24"
10"-12"
PIG STOP - 1" MATERIAL
16"-24" HIGH
7'-0"
2" x 2" x 1/8
ANGLE
2" x 2"
CLEATS
30" - 36"

List of Materials - Farrowing Crate

Item	No.	Description
Pig Stop	4	1" x 8" x 7'
Sow Retaining Panel	4	2' x 12" x 7'
Cleats	8	2" x 2" x 16"
	8	2" x 2" x 3'
Plywood	1	1/2" x 2' x 5'
	1	1/2" x 2' x 5'
Supports	2	1 1/2" pipe x 4'

Cost: $75.00 (materials) + 7.00 (water cup) + 14.00 (feeder) ≈ $100

Farrowing System 4

An old dairy barn will be converted into a farrowing facility. The building will have a concrete floor and be equipped with a gutter cleaner.

Building Dimensions

overall dimensions of the barn are 36' x 60' x 80'
farrowing - 36' x 38' x 8'
Nursery - the farrowing room can be used as the nursery

Remodeling Costs

To protect the walls add 3/4" plywood up 4' - 14 sheets needed @ $22.75 = $318.50

Partition cost - 8' x 36' stud wall, 2" x 4", 2' O.C.
Materials: 19 - 2 x 4 x 8' @ $1.90 = $36.10
6 - 2 x 4 x 12' @ $3.50 = 21
9 sheets 3/4" plywood @ $22.75 = $204.75

Total = $261.85

Steel farrowing crates will be used - 16 crates @ $250 = $4000

Electrical - wiring

6 - 100 Watt enclosed light fixtures @ $8.50 = $51
100 amp circuit breaker load center @ $52.00
6 circuit breakers @ $3 = $18
nonmetallic dust and water tight outlets - 14 @ $10.00 = $140
Use type U.F. cable for inside circuits 400 ft @ $.35/ft = $140
Use AWG 3 feeder circuit cable, THW moisture resistant conductor 220 ft @ $1.88/ft. = $413.60
Trenching to bury lines - lines will be buried with water line
220' of 1" plastic conduit @ $.42/ft = $92.40
Total = 907 + 2% = $1088.40

Plumbing

This building will have a frost-proof water hydrant
3/4" hydrant costs $42.00
6' deep, 200 ft. trench @ $3.00/ft = $600
280' of 3/4" plastic pipe @ $.10/ft = $28.00

Total = 670 + 20% = $804

Ventilation

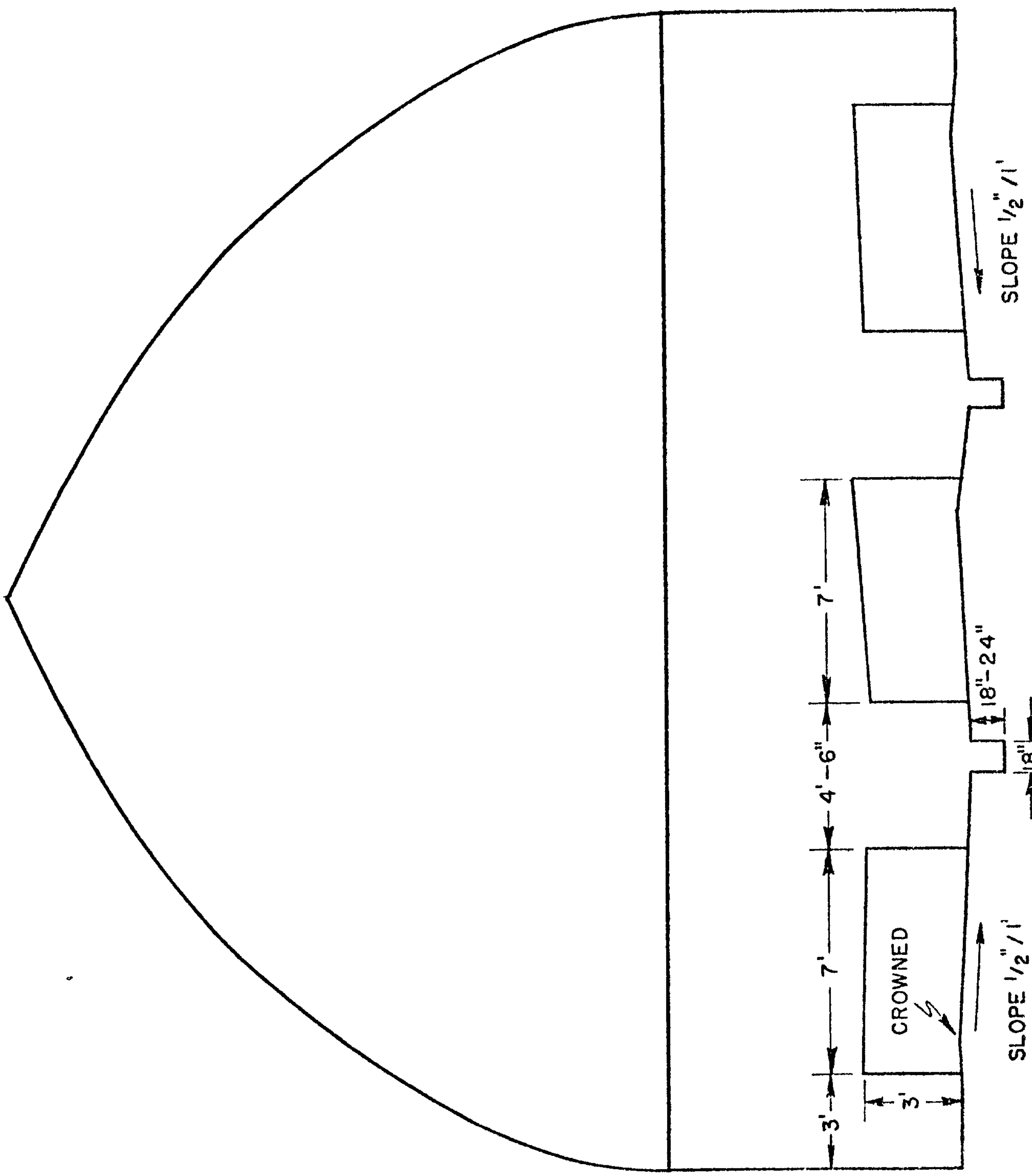
This building will be naturally vetnilated. Air circulation fans may be needed in the summer.

Creep heat will be provided with 9-250 Watt heat lamps @ 15 = $135

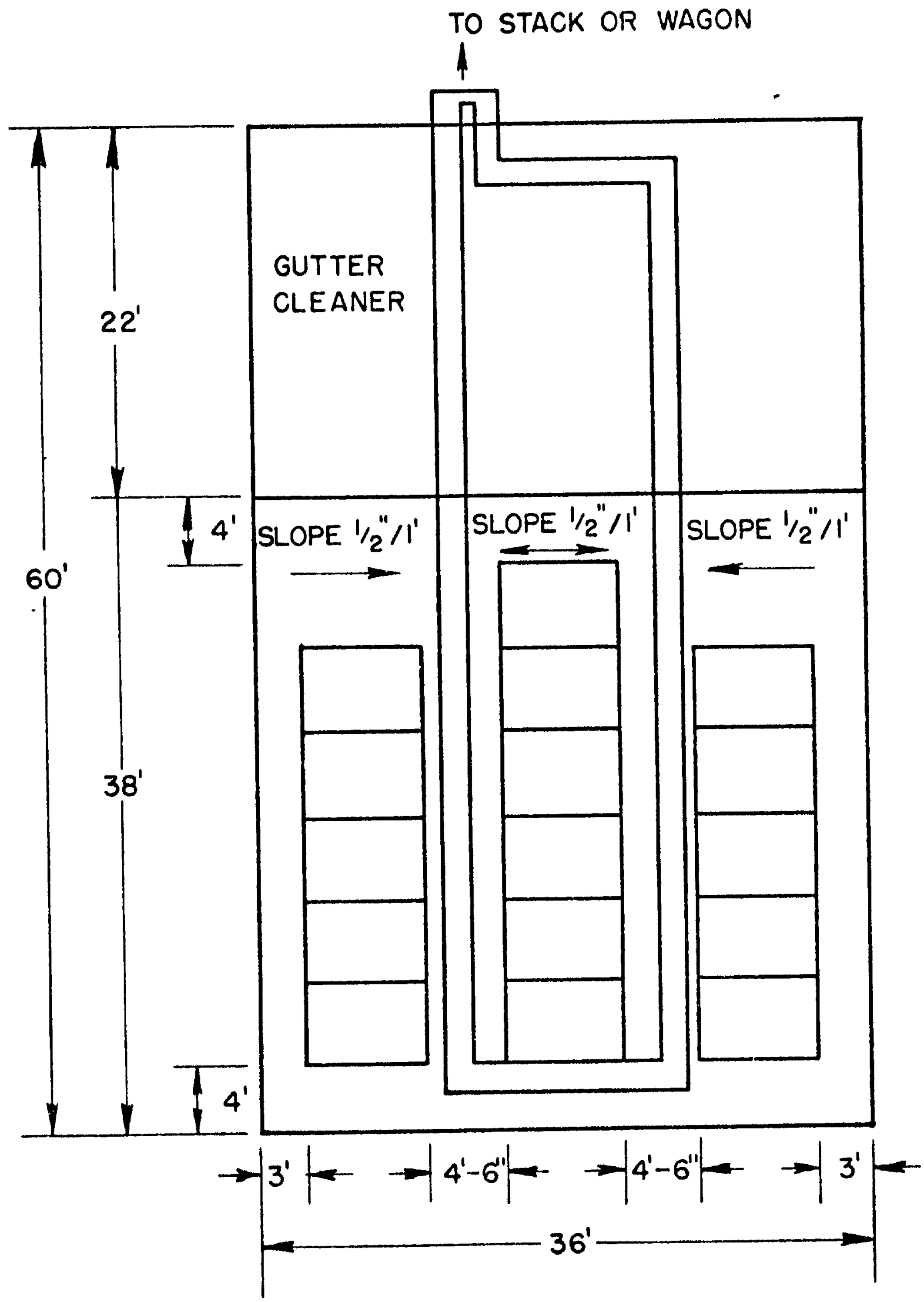
Waste Handling

Bedding will be used so the waste will be handled as a solid. The gutter cleaner will convey wastes to an outside stack or manure spreader.

FARROWING BUILDING 4



FARROWING SYSTEM 4



Farrowing System 5

This will be the same building as System 4 with the addition of insulation and mechanical ventilation.

Building Dimensions - overall dimensions of the barn are 36' x 60' x 8'
Farrowing - 36' x 38' x 8'
Nursery - the farrowing room can be used as the nursery

Remodeling Costs

Stud wall partition - 8' x 36', 2" x 4', 2' O.C.
Framing cost: 19-2 x 4 x 8' @ \$1.90 = \$36
6-2 x 4 x 12' @ \$3.50 = \$21

Total = \$57

Wall area = 1184 ft^2 (includes partition)
from remodeling cost sheet - wall remodeling costs = \$.89/ft^2
therefore wall cost = \$1053.76

Ceiling - if the ceiling is good and hay is stored above, no remodeling is needed.

Plywood for other side of partition - 9 sheets of 3/4" plywood @ \$22.75 = \$204.75
Total = \$1315.51 + 20% = \$1578.61

16 steel crates @ \$250 = \$4000

Plumbing

Cost to install new water line:
6' deep water lines trench 200 ft. ≈ \$600
220' of 3/4" plastic pipe @ \$.10/ft = \$22
3/4" frost proof hydrant = \$42
200' of 3/4" plastic pipe for inside building @ \$.10/ft = \$20

Total cost = \$684 + 20% = \$821

Rewiring

6-100 Watt enclosed light fixtures @ \$8.50 = \$51
100 amp main switch circuit breaker - \$52, 6 breakers @ \$3 = \$18
nonmetallic dust and water tight outlets - 14 @ \$10 = \$140
Use type U.F. cable for inside circuits ≈ 400 ft. @ \$.35/ft = \$140
Use AWG 3, feeder circuit cable, THW moisture resistant conductor 220 ft @ \$1.88/ft = \$413.60

Trenching - bury line with plumbing line
220' of 1" plastic conduit @ \$.42/ft. = \$92.4

Total = \$907 + 20% = \$1088.4

Farrowing System 5 - Continued

Ventilation

Since the farrowing room will be used as a nursery and nursery ventilation rates are higher than for farrowing, use nursery ventilation rates.

Ventilation Rates:
- winter minimum - 320 cfm
- winter normal - 2400 cfm
- summer - 5760 cfm

Fans required:
- 1-320 cfm at 1/8" S.P. @ $200
- 1-2808 cfm at 1/8" S.P. @ $285
- 1-3360 cfm at 1/8" S.P. @ $290

Total = $775

Slot inlets: summer - run a 2" slot, 22' long along both 38' sides
winter - run a 1" slot, 18' long along both 38' slides

louver area: provide at least 12 ft^2 of louver area
cover with 1" mesh screen to keep birds out

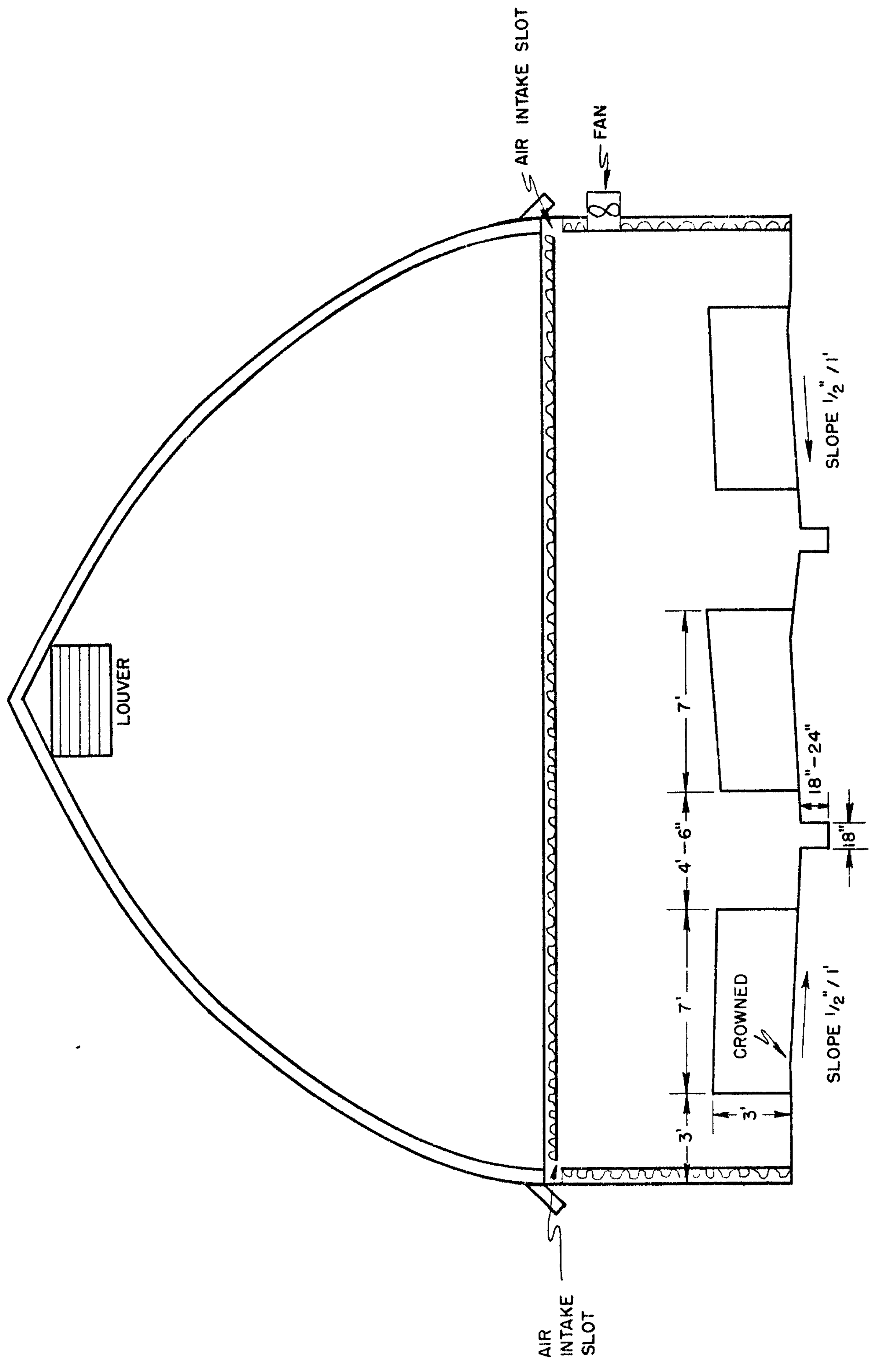
Supplemental Heat

Each sow and litter requires 3,000 Btu/hr. supplemental heat, therefore a 48,000 Btu/hr. unit is needed.
This facility requires 1-60,000 Btu/hr. unit @ $300
Creep heat will be provided by 9-250 Watt heat lamps @ $15 = $135

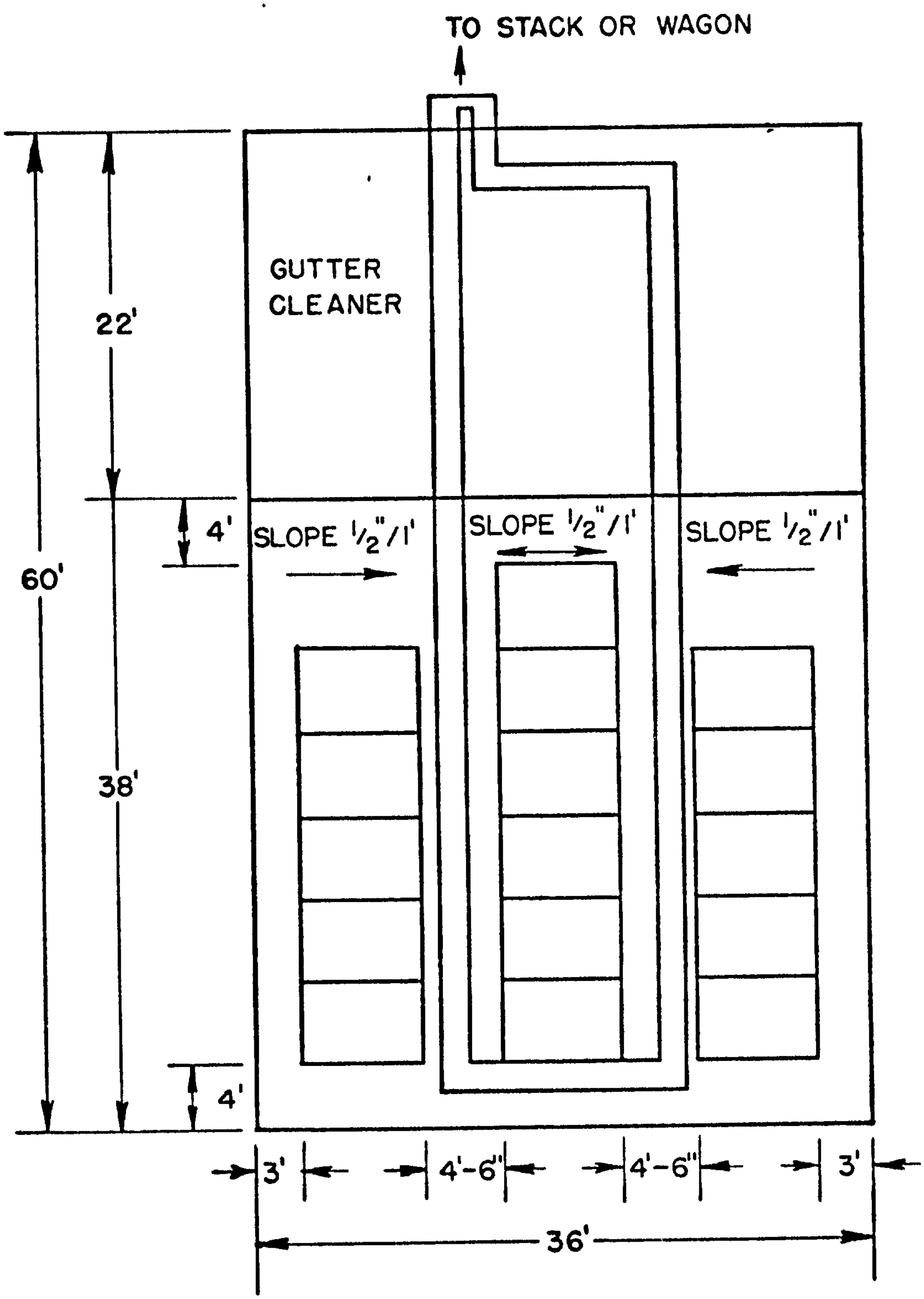
Waste Handling

Bedding will be used so the waste will be handled as a solid. The gutter cleaner will convey wastes to an outside stack or manure spreader.

FARROWING BUILDING 5, 6



FARROWING SYSTEM 4



Farrowing System 6

This will be the same building as System 5 with the addition of a nursery facility and concrete liquid manure storage tank. No bedding will be used, waste will be handled as a liquid. A liquid waste handling system is used to handle the larger volumes of waste encountered with the 6 litter/yr. system.

Building Dimensions - overall dimensions 36' x 60'
Farrowing - 36' x 38' x 8'
Nursery - 36' x 22' x 8' (160 piglet capacity)

Remodeling Costs

Wall area = 1536 ft^2
from remodeling costs sheet - wall remodeling costs = $\$.89/ft^2$
therefore wall cost = $1367

Ceiling - if the ceiling is good and hay is stored above, no remodeling is needed.

Partition - 36' x 8', 2" x 4" stud wall
Framing cost: 19-2 x 4 x 8' @ $1.90 = $36
6-2 x 4 x 12' @ $3.50 = $21
Total = $57

Insulation, vapor barrier, plywood cost = $468.75

Total = $1892.75 + 20% = $2271

Resloping of floor with 4" of concrete: 36 x 60 = 2160 ft^2 @ $\$.58/ft^2$ = $1253

16 wooden farrowing crates @ $100 = $1600 or 16 steel crates @ $250 = $4000
(with feeder and waterer)

nursery pens: 2" x 12" x 8' stacked 3 high for solid section
4 sets of 3 needed = 12 @ $8 = $96

for open sections 2" x 8" x 6' stacked 3 high with 4" spaces
10 sets of 3 needed = 30 @ $3.12 = $93.60

Total = $96 + $93.60 + 10% = $209

Plumbing

Cost to install new water line:
6' deep water lines 200 ft. = $600
220' of 3/4" plastic pipe @ $.10/ft = $22
3/4" frost proof hydrant = $42
300' of 3/4" plastic pipe for inside of building @ $.10/ft = $30

Total cost = $694 + 20% = $832.8

Farrowing System 6 - Continued

Rewiring

12-100 Watt enclosed light fixtures @ \$8.50 = \$102
100 amp main switch circuit breaker - \$52.00, 6 breakers @ \$3 = \$18.00
nonmetalic dust and water tight outlets - 22 @ \$10.00 = \$220
Use type U.F. cable for inside circuits ≈500 ft. @ \$.35/ft. = \$175
Use AWG 3, Feeder circuit cable, THW moisture resistant conductor - 220 ft. @ \$1.88/ft. = \$413.6

Trenching to bury lines 2 ft. deep - 100 ft. long ⟶ run with water line
220' of 1" plastic conduit @ \$.42/ft. = \$92.4

Total = \$1073 + 20% = \$1288

Ventilation

The farrowing and nursery areas will be ventilated independently. Solid wall partition.

Farrowing Section: winter (minimum) = 320 cfm
winter normal = 1288 cfm
summer = 3360 cfm

Fans required: 1-320 cfm at 1/8" S.P. = \$200
1-960 cfm at 1/8" S.P. = \$235
1-2080 cfm at 1/8" S.P. = \$285 TOTAL = \$720

Slot inlets: for summer provide 1" slot 25' long along both 38' sides
for winter provide 1" slot 10' long along both 38' sides

Louver area: provide at least 6 ft^2 of louver area just for farrowing section, cover with 1" mesh screen.

Nursery Section: winter (minimum) = 320 cfm
winter normal = 2400 cfm
summer = 5760 cfm

Fans required: 1-320 cfm at 1/8" S.P. = \$200
1-2080 cfm at 1/8" S.P. = \$285
1-3360 cfm at 1/8" S.P. = \$290 TOTAL = \$775

Slot inlets: summer - run at 2" slot 22' long along both 22' sides
winter - run at 1" slot 18' long along both 22' sides

Louver area: provide at least 12 ft^2 of louver area for nursery

Total louver area needed = 12 + 6 = 18 ft^2
(farrowing and nursery)

Supplemental Heat Required

For farrowing: (3000 BTU/hr/sow and litter) (16) = 48,000 BTU/hr unit
60,000 BTU/hr unit ≈ \$300
Creep heat = 9-250 Watt heat lamps @ 15 = 135
For Nursery: (300 BUT/hr/pig)(160) = 48,000 BTU/hr unit
60,000 BTU/hr unit ≈ \$300

Total Cost ≈ \$735

Farrowing System 6 - Continued

--Feeders for nursery - need 6-5 hole feeders @ \$84 = \$504
or 2-5 hole, 2 troughs + 2-5 hole feeders = (2)(130) + (2)(84) = \$428

--Waterers - 6-cup waterers @ \$12.00 = \$72

Waste Handling

Waste will be collected in the gutters and the gutter cleaner will convey the manure to an outside storage pit.

Cost of below-grade concrete storage pit:
Total volume required for 180 days of storage = 3250 ft^3
Thank size required = 22' x 22' x 8'
This will give 7' of storage depth.
Cost of tank = (3872 ft^3)(\$1.56/ft^3) = \$6,040
Concrete cover (designed for vehicle traffic) = (484 ft^2)(\$6/ft^2) = \$2,904
Total = \$8,944

An agitation pump will be required; it must be 8' long. Cost = \$3,500
A tank wagon will be needed to haul wastes from the pit to the fields, 2,000 gallon tanker. Cost = \$6,500

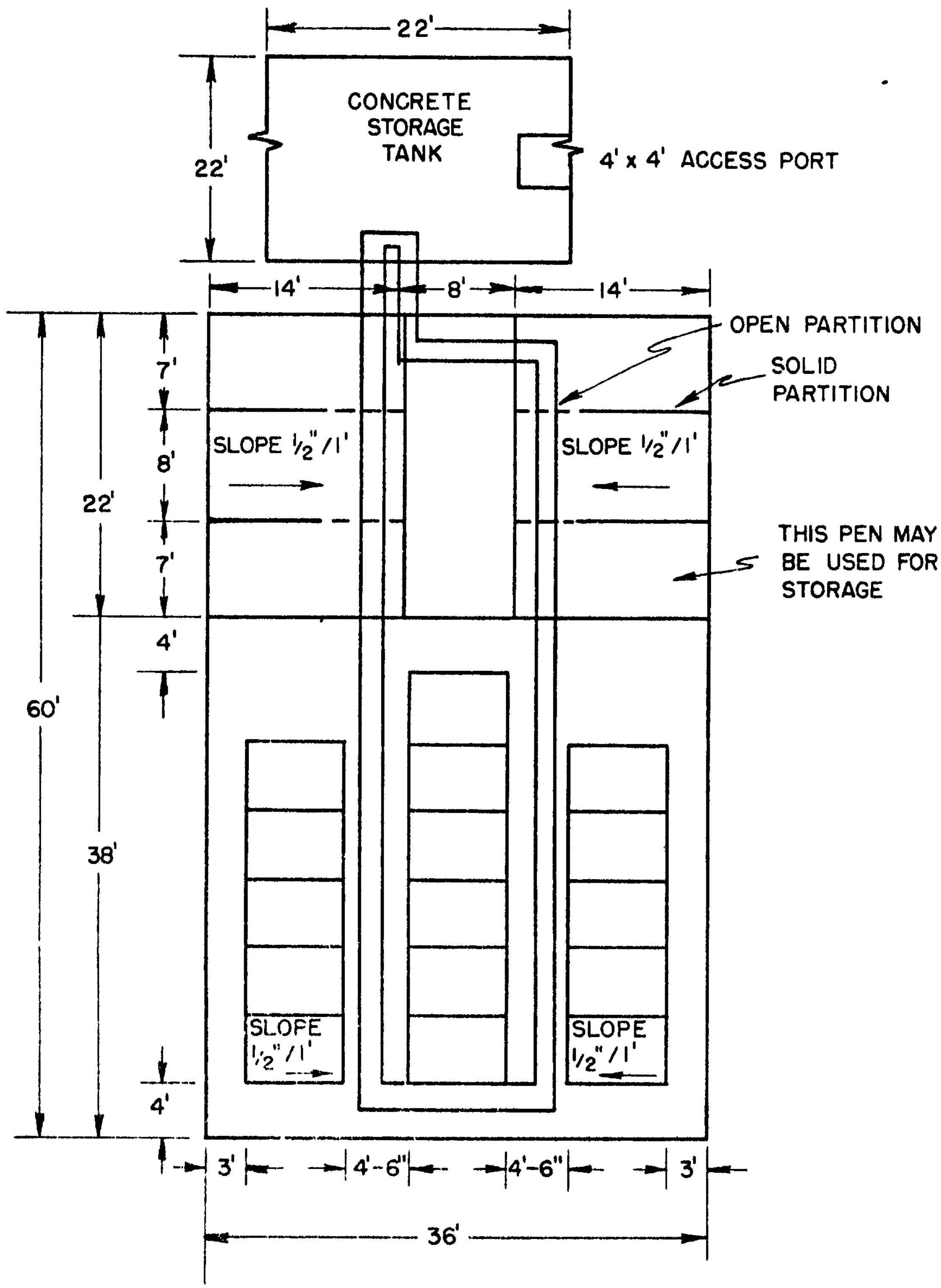
Alternative Waste Handling Component for Farrowing System 6

Remodeled dairy facility with no gutter cleaner, install a gravity flush gutter that conveys waste out of barn to an outdoor storage facility.

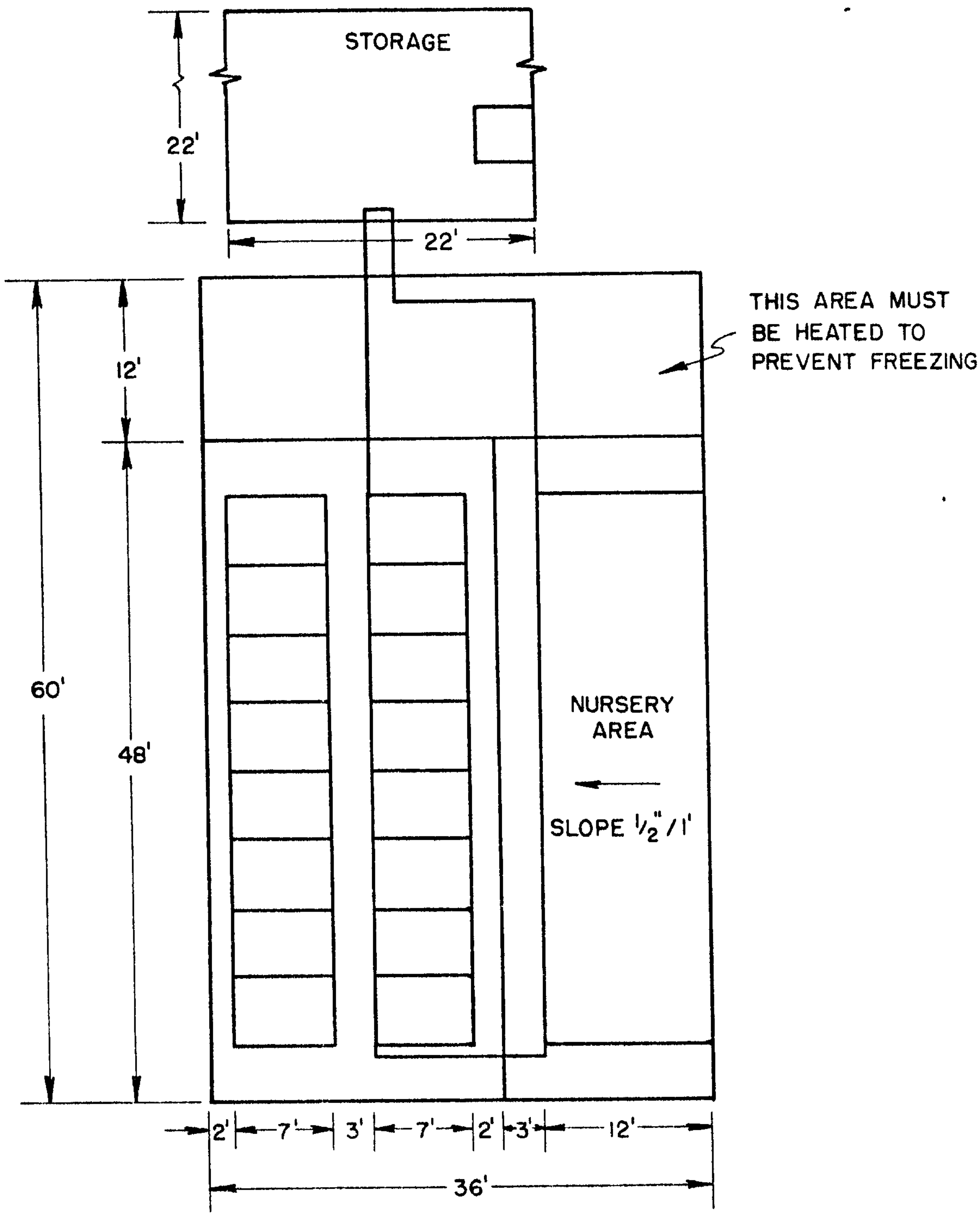
Slope gutters 1"/25 ft. toward the storage facility.

At the end of each gutter will be a plug that will be opened when the gutter becomes full. This will flush the gutter in a batch flow and freezing will not be a problem. From the plug the waste will flow through an 8" diameter PVC pipe to the storage tank. The storage tank will have a prestressed concrete top that will support vehicle traffic.

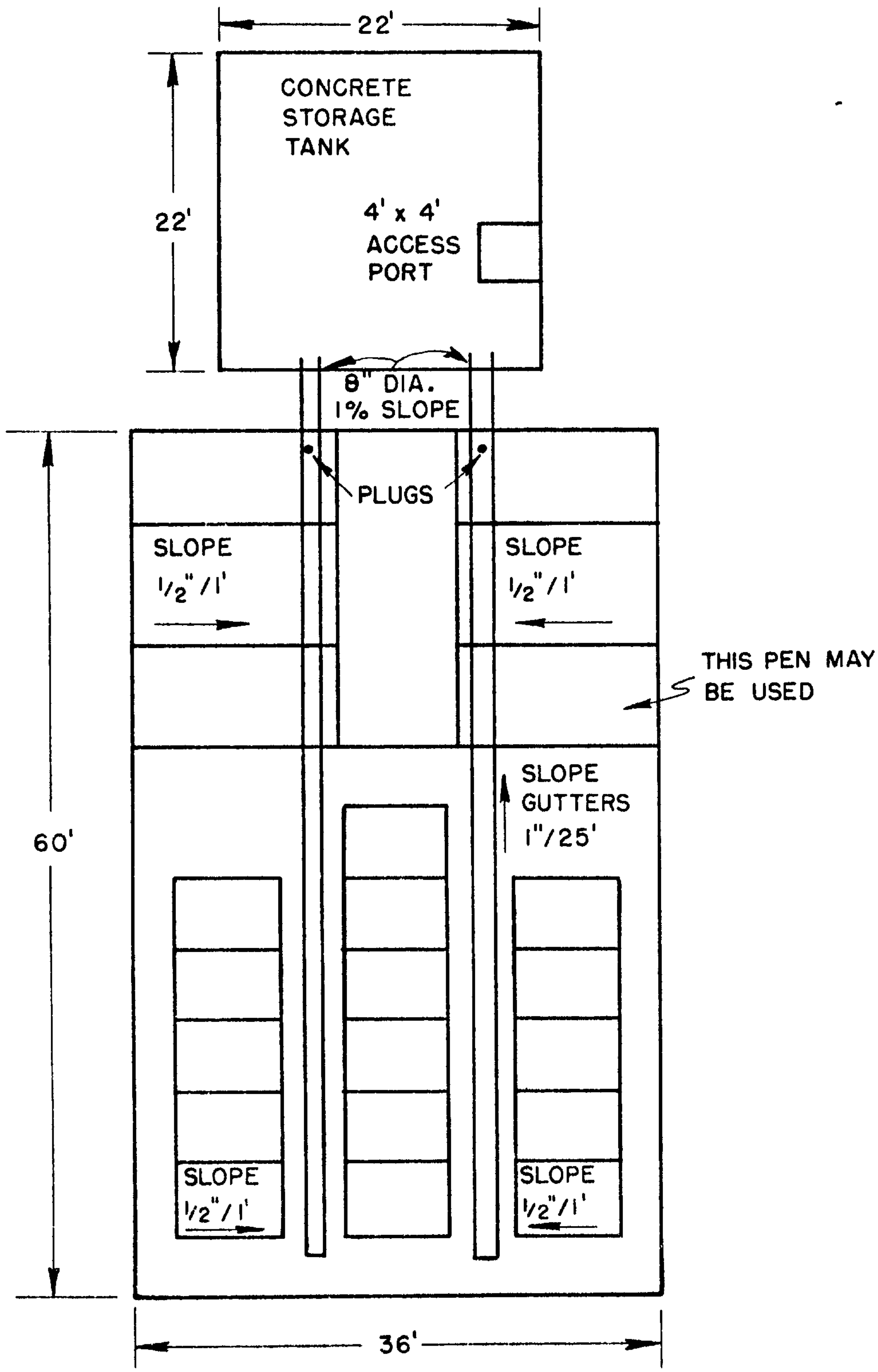
FARROWING - NURSERY SYSTEM 6



ALTERNATIVE FLOOR PLAN
FARROWING SYSTEM 6



ALTERNATIVE WASTE HANDLING SYSTEM
FOR FARROWING SYSTEM 6



Farrowing System 7

New pole building used for farrowing. This is for the operator who has no buildings to remodel, doesn't want the high investment of farrowing systems 8, 9, 10 and doesn't want to use a pasture system. A concrete floor will be added to the building.

Building Dimensions

Farrowing - 24' x 48' pole building
Nursery - with 4 litters/yr. the farrowing room can be used for the nursery.

Waste Handling

The animal waste will be handled as a solid with a shovel and wheel barrow. Bedding will probably be used with this system.

Construction Costs

Farrowing System 7 - Continued

Bill of Materials - 24' x 48' Pole Building (MWPS-72054)

Item	Description	No.	Unit Cost	Total
Concrete	Cu. feet	8	$40/27 ft^3	$ 12.00
Poles	5" top x 16' press treated	8	$20.00	160.00
	4" top x 16' press treated	11	$12.80	140.80
Girders	2 x 8 x 16'	7	$10.03	70.21
Bracing	1/2" x 4' x 8' C-C Ext. Plywood	3	$10.72	32.16
	2 x 4 x 14'	6	$ 4.04	24.24
	2 x 6 x 6'	4	$ 2.34	9.36
	2 x 6 x 7'	4	$ 2.73	10.92
Trusses[1]				600.00
Girts	2 x 4 x 16'	21	$ 4.62	97.02
	2 x 4 x 18'	21	$ 5.20	109.20
	2 x 6 x 16'	23	$ 6.24	143.52
Skirt	2 x 6 x 16' pressure treated	12	$ 8.32	99.84
Siding	ft^2	1530	$19/32 ft^2	908.44
Roofing	ft^2	1344	$19/32 ft^2	798.00
	Ln. feet eaves trough (gutters)	96	$3.80/10 ft	36.50
Louver	2 x 4 x 6'	4	$ 1.42	5.68
	1 x 6 x 10'	10	$ 1.84	18.40
	1 x 2 x 12'	2	$ 3.36	6.72
	ft^2 screen	30	$.12/ft^2	3.60
Man Door	4" x 4" x 12'6"	2	$10.40	20.80
	2 x 6 x 2'	1	$ .78	.78
	1 x 6 x 10'	11	$ 1.84	20.24
				$3328

[1]Trusses are 4' O.C. 35 lb. load, 24' span.

Farrowing System 7 - Continued

Cost of Concrete Floor

24' x 48' x 4" = 384 ft^3 = 14.2 yds @ $39/yd = $553.80
Reinforcing (1152 ft^2) ($.10/$ft^2$) = $115.20

Total = $679

Ventilation

Since the farrowing room will be used as a nursery and nursery ventilation rates are higher than for farrowing, use nursery rates.

winter minimum = 320 cfm
winter normal = 240 cfm
summer = 5760 cfm

Farn required: 1-320 cfm at 1/8" S.P. = $200
1-2080 cfm at 1/8" S.P. = $285
1-3360 cfm at 1/8" S.P. = $290

Total = $775

Slot inlets: summer - run a 1" slot 44' long along both 48' sides
winter - run a 1" slot 18' long along both 48' sides

Louver area: provide at least 12 ft^2 of louver area, cover with 1" mesh screen to keep birds out.

Supplemental heat required

3000 BTU/hr are required per sow and litter
therefore, a 48,000 BTU/hr unit is needed
A 60,000 BTU/hr unit costs ≈ $300

Creep heat provided by 10-250 Watt heat lamps @ $15 = $150

Insulation: wall area = 1440 ft^2
ceiling area = 1152 ft^2

In walls use 2" x 4' x 8' sheets polystyrene (R = 8.4), cover with 3/4" plywood
insulation - 1440 ft^2 x $8.88/32 ft^2 = $400
plywood - 1440 ft^2 x $22.75/32 ft^2 = $1023.75
vapor barrier - 1440 ft^2 x $.02/$ft^2$ = $28.80
In ceiling use 1/2" plywood with 6" blown insulation (R = 20)
insulation - 1152 ft^2 x $8.00/32 ft^2 = $307.20
plywood - 1152 ft^2 x $16.00/32 ft^2 = $576
vapor barrier - 1152 x $.02/$ft^2$ = $23.04

Total cost for insulation = $2,359

Farrowing System 7 - Continued

Plumbing

Cost to install new water line:
- 6' deep water line trench 200' @ $3.00/ft = $600
- 220' of 3/4" plastic pipe @ $.10/ft = $22
- 3/4" frost proof hydrant = $42
- 200' of 3/4" plastic pipe for inside building @ $.10/ft = $20

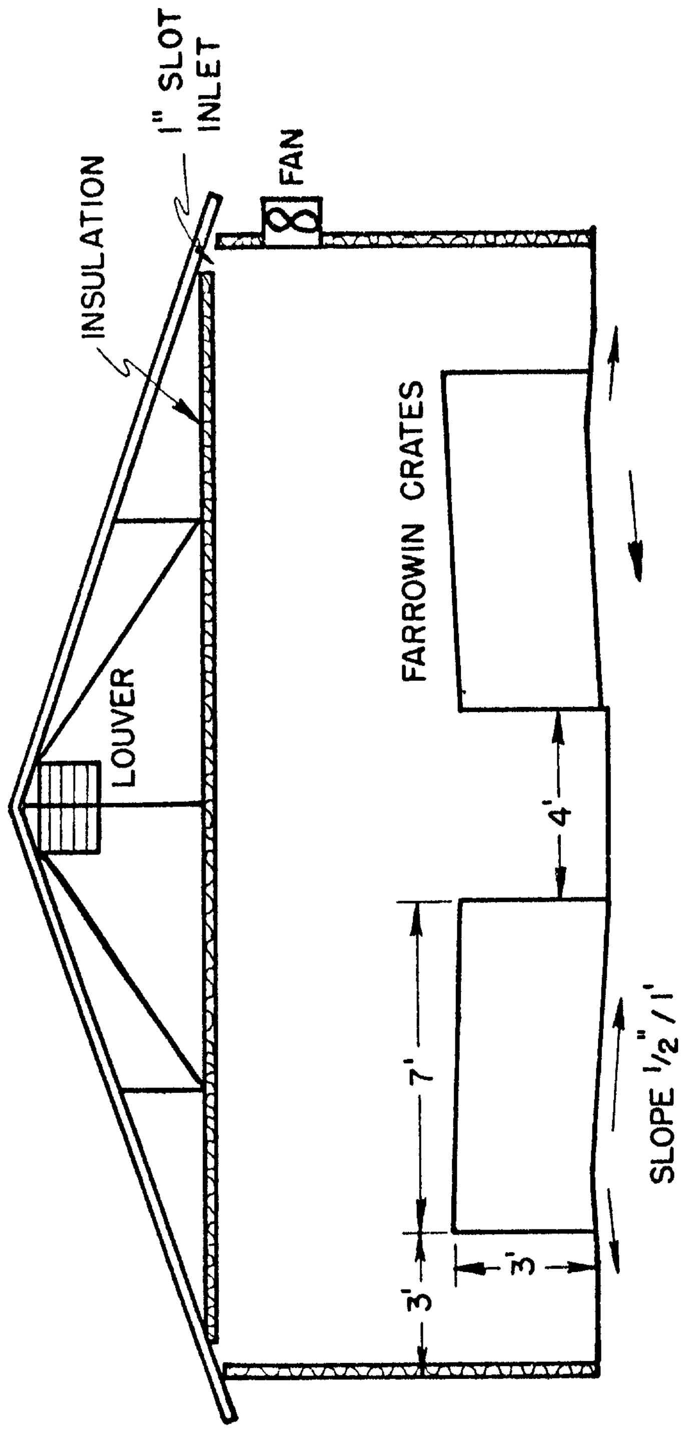
Total cost = $684 + 20% = $821

Wiring

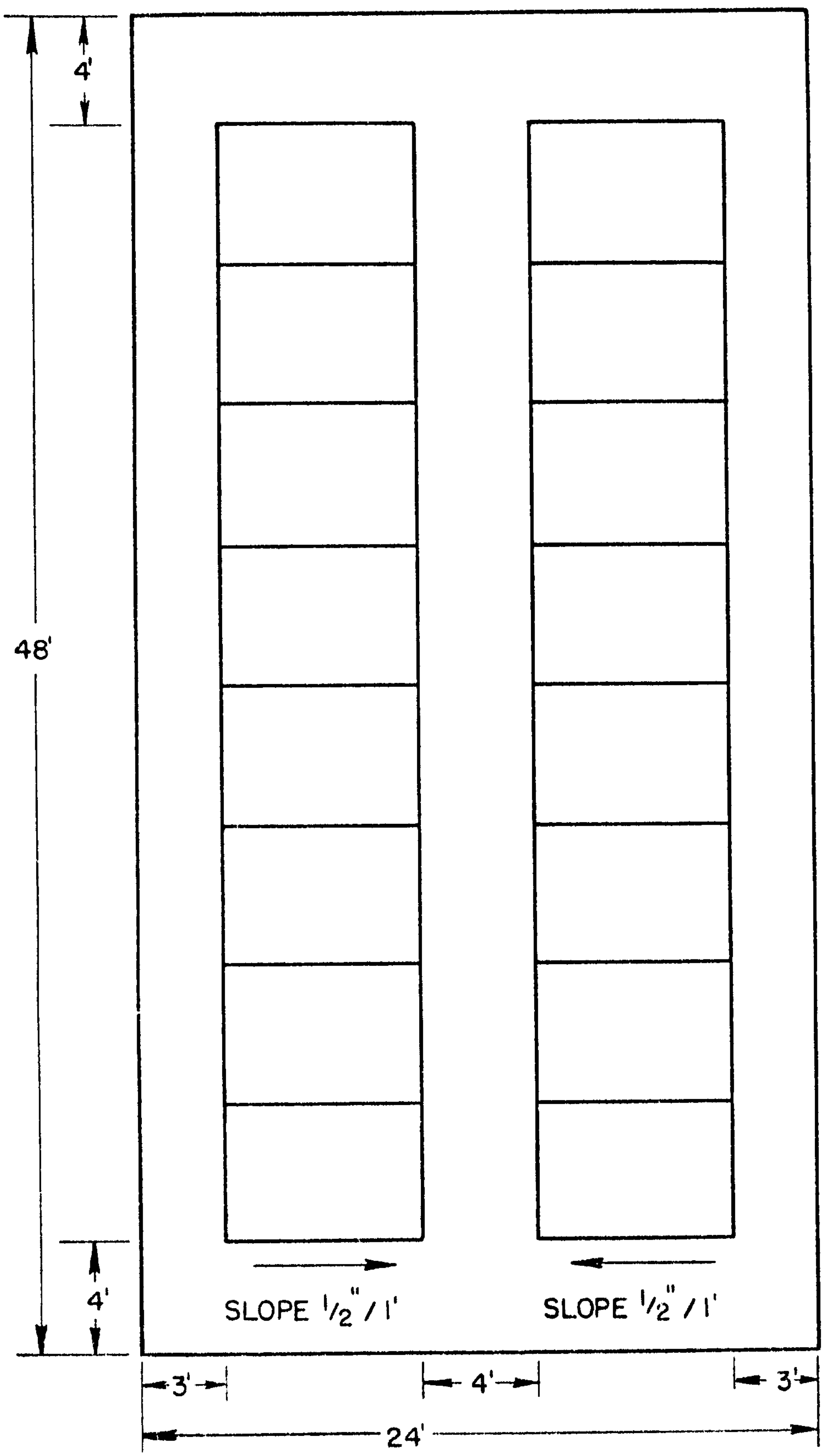
6-100 Watt enclosed light fixtures @ $8.50 = $51
100 amp main switch-circuit breaker - $52, 6 breakers @ $3 = $18
nonmetallic dust and water tight outlets - 16 @ $10 = $160
Use type U.F. cable for inside circuits ≈ 400 ft @ $.35/ft = $140
Use AWG 3, feeder circuit cable, THW moisture resistant conductor 220 ft @ $1.88/ft.= $413.6
Trenching - bury line with plumbing line
- 220' of 1" plastic conduit @ $.42/ft = $92.4

Total cost = $927 + 20% = $1112

FARROWING SYSTEM 7



FARROWING SYSTEM 7



Farrowing System 8

New building. Totally confined, partially slatted farrowing room and totally slatted nursery with an 8' manure storage pit.

Farrowing - partially slatted, 16-sow capacity
Nursery - totally slatted, 160-piglet capacity

This will be a turn-key facility complete with crates, feeders, waterers, heaters, ventilation equipment, etc.

Cost = \$2000/sow + \$100/piglet

Water and electric service must be brought to the building.

Plumbing Installation

6' deep water lines 200 ft = \$600
220' of 3/4" plastic pipe @ \$.10/ft = \$22
Total = \$622

Electric Service

AWG 3, feeder circuit cable, THW moisture resistant conductor 220' @ \$1.88/ft = \$413.6
220' of 1" plastic conduit @ \$.42/ft = \$92.4
Total = \$506

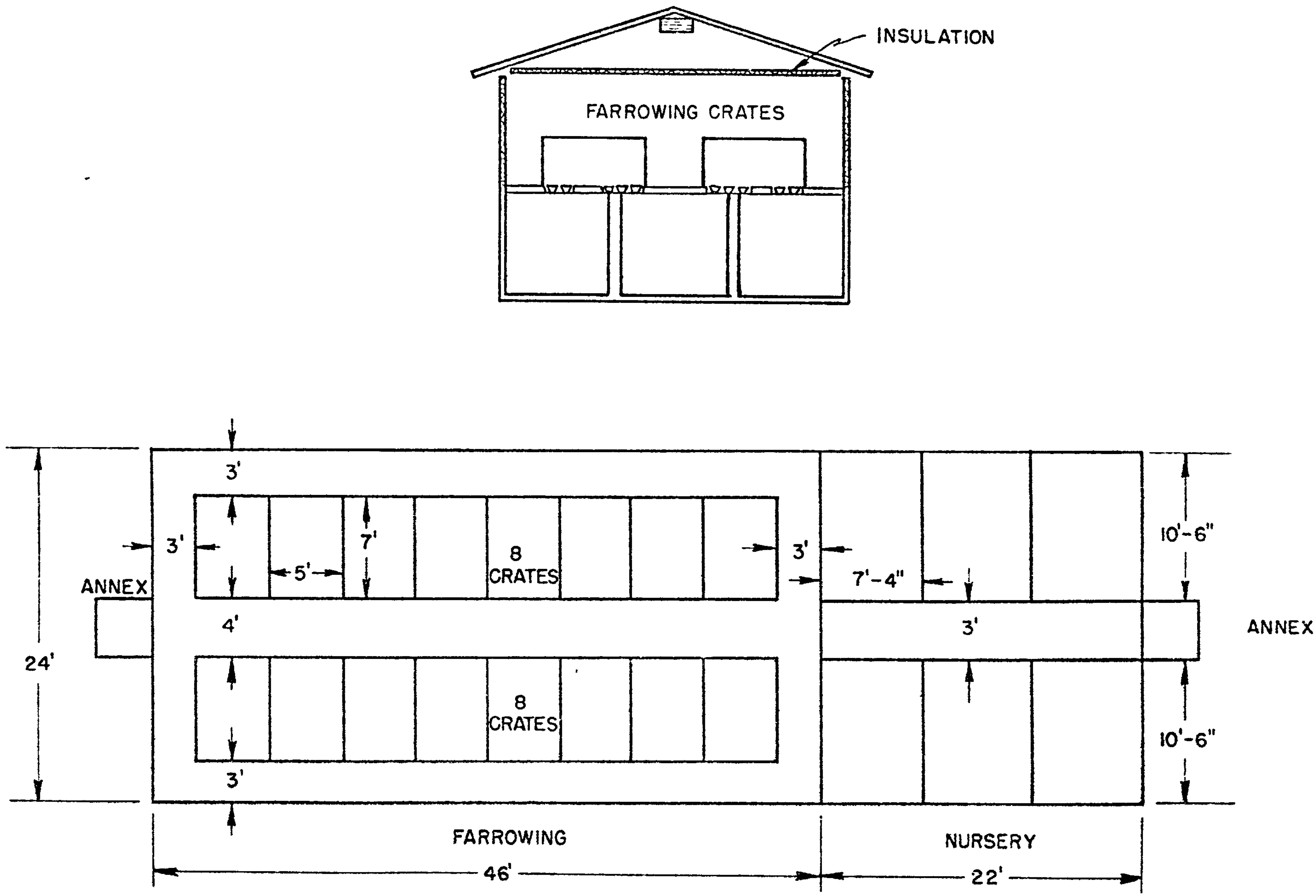
Waste Handling

An agitation pump 8 ft. long (\$3500) and a liquid manure spreader (2,000 gallon - \$6500) will be needed to empty the manure pit.

Farrowing System 9

Same facility of Farrowing System 8 except it will be used for 8 litters per year.

FARROWING-NURSERY SYSTEM 8,9



Farrowing System 10

New facility. Totally confined, partially slatted floor with a flush system to convey wastes to a lagoon. This system will have a 280 piglet nursery.

This will be a turn-key facility complete with crates, feeders, waterers, heaters, ventilation equipment, etc.

Cost = $2,000/sow + $100/piglet

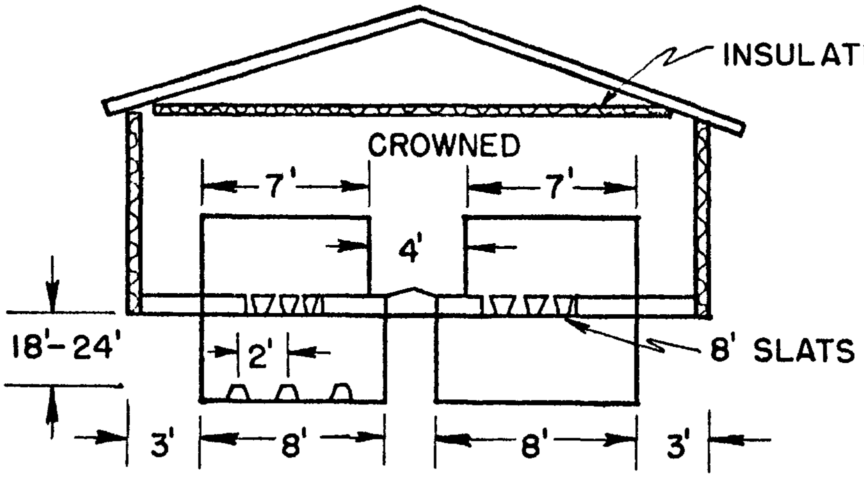
The cost to run a water line and electrical servie is the same as for system 8 - $1128

Lagoon Design - see page

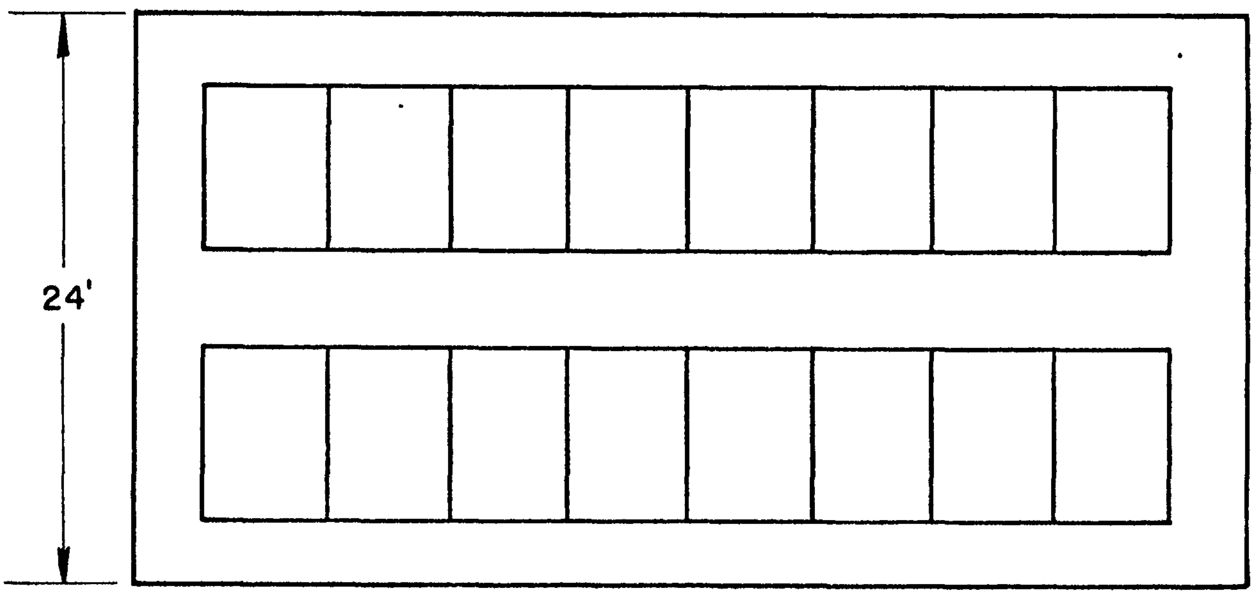
An irrgation system will be used to empty the lagoon.

Irrigation System Cost - see page

FARROWING SYSTEM 10

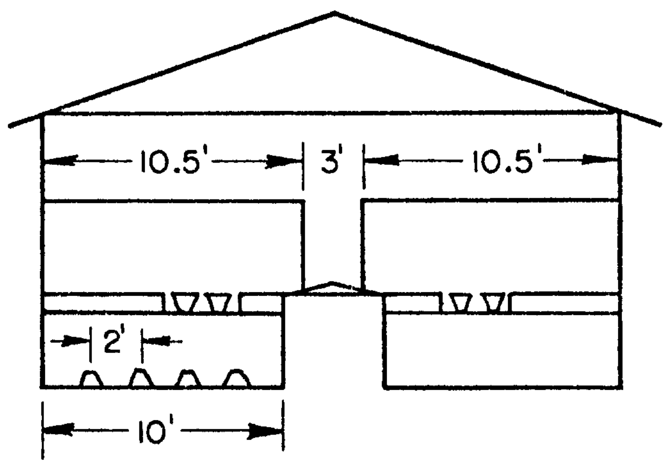


FARROWING CROSS SECTION

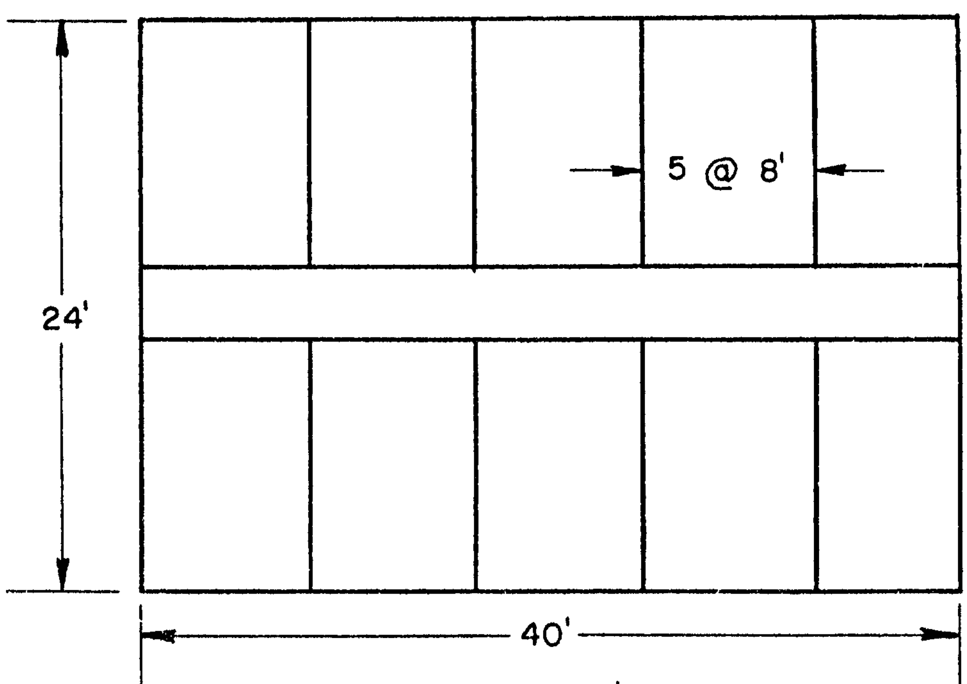


FARROWING 8' SLATS

NURSERY



NURSERY CROSS SECTION



NURSERY 10' SLATS

<u>Gestation System 1</u> - Pasture System, 18 sows, 8 gilts, 2 boars

Portable shelters will be provided for shade and wind protection. Two pasture areas will be fenced and used in yearly rotations.

Construction Costs

<u>Feeders</u>:

Trough space needed (2'/sow)(18 sows) = 36 ft trough space

<u>OR</u> 1'/sow self-feed = 18 ft self-feed space

<u>Provide for the sows</u>:

Two 10-hole feeders @ ≈ \$190-280 = \$380-560

<u>OR</u> metal trough for sows 9 at 4 ft = 36 ft 9 @ \$17 = \$153

<u>OR</u> Two 8-ft 2-sided troughs (32 ft feed length) 2 @ \$55 = \$110

For boars and extra pen:

Two 2-ft feeders @ \$13.75 = \$27.50

<u>Waterers</u>:

1 foot or cup/10 sows ∴ need 2 ft of trough space

1 foot or cup/3 boars ∴ need 1 ft of trough space

(these waterers must be frost-proof)

<u>Provide for the sows and boars</u>:

One 2-hole frost-proof waterer at \$95

Optional 95 gallon stock tank waterer for warm weather use at \$75.25

2 ft trough in extra pen \$11.00

220 ft of 3/4" plastic pipe @ .10/ft = \$22

Approximate cost to run 6' deep water lines 200 ft @ 3.00/ft = \$600

200' of electric line will also have to be run to heat the waterer:

Conduit 220' @ .42/ft = \$92.40

220' @ .20/ft = \$44.00

3/4" frost proof water hydrant ≈ \$42.00

Plumbing & Electric = 22 + 600 + 92.4 + 44 + 42 = 800 + 20% = 960

Waste Handling:

Bedding will be used so waste will be handled as a solid.

Bedding and manure will have to be removed from the shelters with a shovel. A loader may be used to remove wastes from around the waterers and feeders. A dry manure spreader may be needed to spread the waste onto fields.

Note: the spreader and laoder may not be necessary.

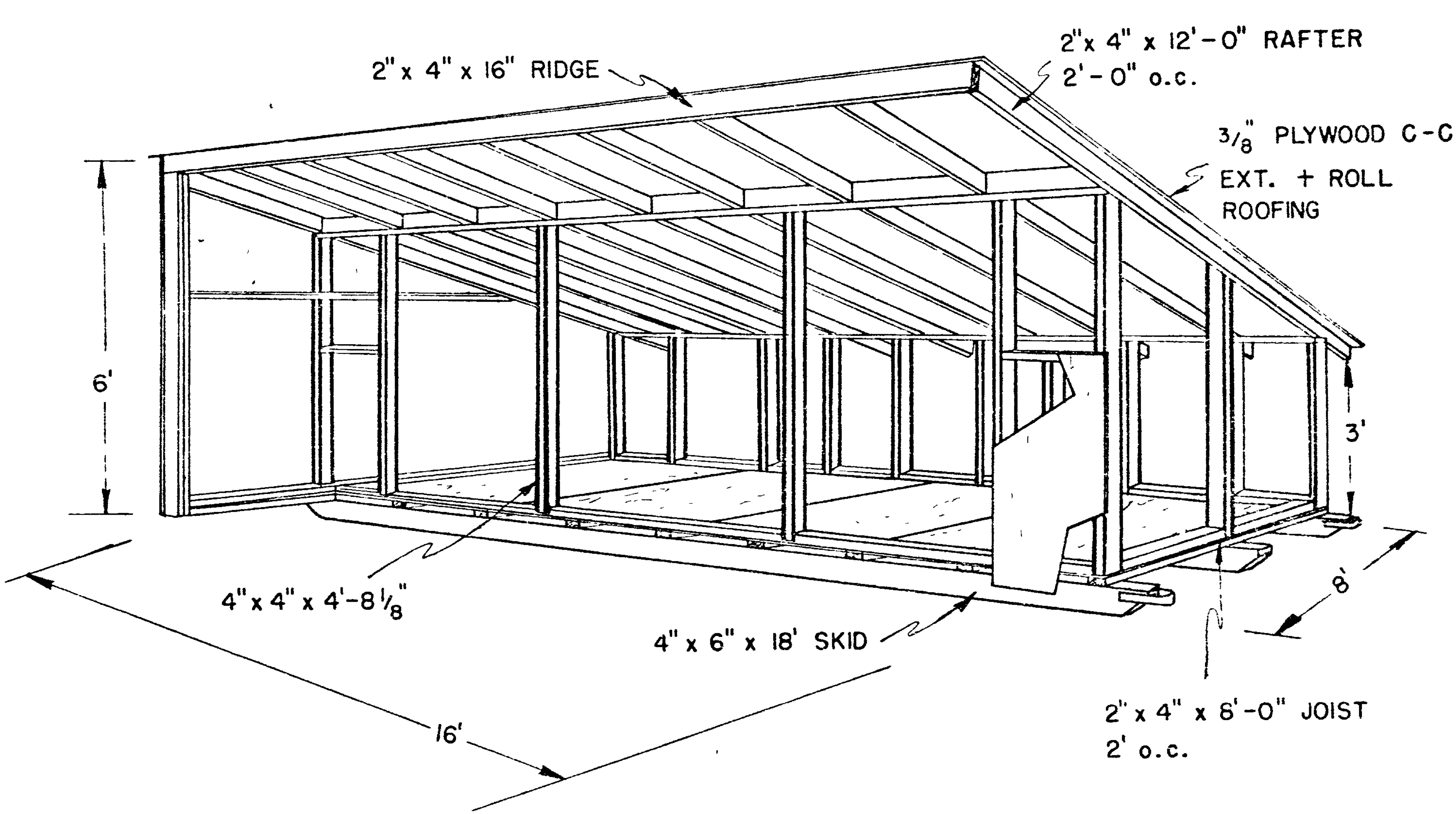
Fencing Needed:

3240 ft @ .80/ft = $2592

post every 8 ft = 405 posts at 1.75 = $709

This approximately = $1/ft

SOW SHELTER FOR GESTATION SYSTEM I

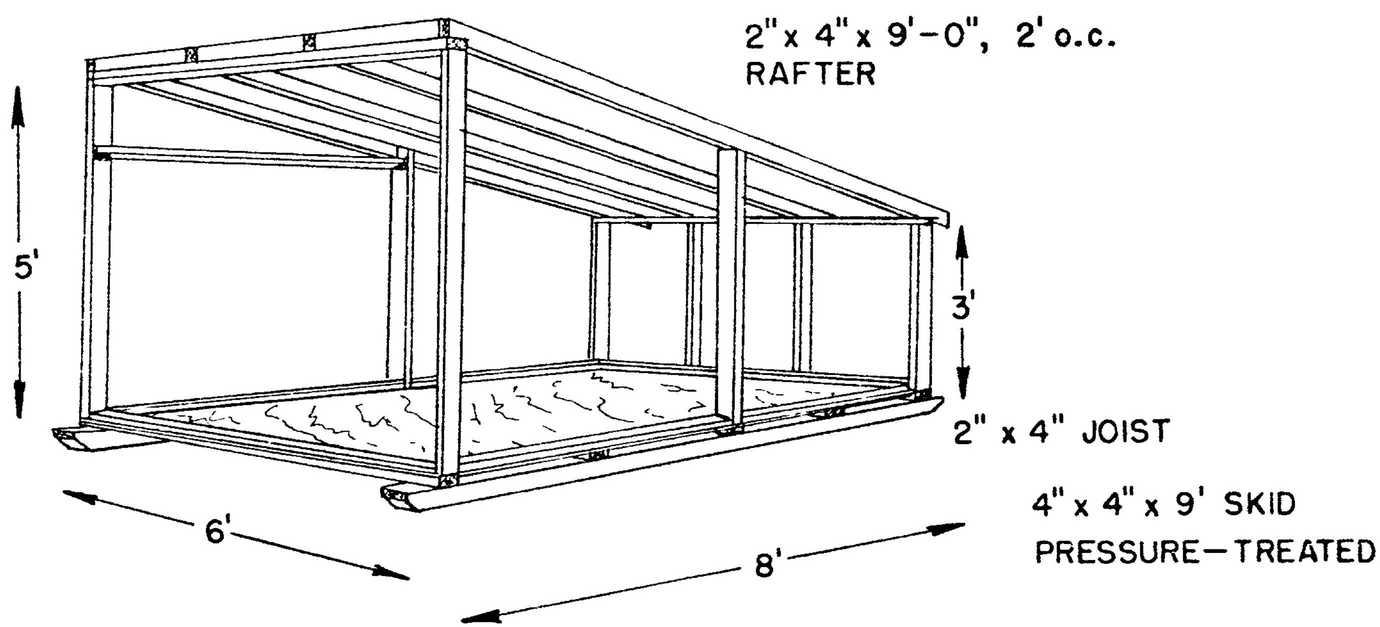


List of Materials - Sow Housing (MWPS 72630)
Size of Building is 8' x 16' with a 3' overhang

Item	Description	No.	Unit Cost	Total
Skid	4" x 6" x 18'	3	$21.60	$64.80
Joist	2" x 4" x 8'	8	1.90	15.20
	2" x 4" x 10'-8 3/8"	1	2.60	2.60
Sill (Blocking)	2" x 4" x 18'	3	5.20	15.60
Studs	2" x 4" x 5'-8 3/8"	2	1.40	2.80
	2" x 4" x 4'-8 1/8"	10	1.19	11.90
	2' x 4" x 4'	2	.95	1.90
	2" x 4" x 2'-9 3/4"	11	.71	7.81
Plate	2" x 4" x 16'	2	4.62	9.24
Rafters	2" x 4" x 12'	9	3.47	31.23
Blocking	2" x 4" x 16'	3	4.62	13.86
Ridge	2" x 4" x 16'	1	4.62	4.62
Facia	1" x 4" x 16'	1	2.40	2.40
Nailing Girts	2" x 4"	(total) 24 ft	6.93	6.93
C-C Ext. Plywood				
roof	1/2" x 4' x 8'	6 sheets	16.64	99.84
floor	3/4" x 4' x 8'	4 sheets	22.75	91.00
back	3/4" x 4' x 8'	2 sheets	22.75	45.50
sides	3/4" x 4' x 8'	4 sheets	22.75	91.00
front	3/4" x 4' x 8'	2 sheets	22.75	45.50
Insulation (roof)	1" x 4' x 8'	6 sheets	12.00	72.00
				$635.73
			plus 20% misc.	763.00

For 18 sows, 2 of these units are needed. Total Cost = $1526.00

BOAR SHELTER FOR GESTATION SYSTEM I



List of Materials - Shelter for 2 Boars (MWPS 72630)
Size of building 6' x 8', one side open

Item	Description	No.	Unit Cost	Total
Skids	4" x 4" x 9' (pressure treated)	2	$ 7.25	$14.25
Rafter	2" x 4" x 9'	4	2.15	8.60
Stud	2" x 4" x 2'-5 1/8"	4		3.50
	2" x 4" x 4'	2		1.89
	2" x 4" x 4'-4 1/2"	3		3.78
	2" x 4" x 2'-8 1/8"	1		.71
Plate	2" x 4" x 6'	2	1.42	2.84
Nailing Girts	2" x 4" x 3'	1		.71
	2" x 4" x 4'	2		1.89
Joist	2" x 4" x 6'	5	1.42	7.10
Sill	2" x 4" x 8'	2	1.89	3.78
	2" x 4" x 6'	2	1.42	2.84
Blocking	2" x 4" x 6'	1	1.42	1.42
Facia	1" x 4" x 6'	1	.90	.90
Plywood sides	3/4" x 4' x 8'	3	22.75	68.25
top	3/4" x 4' x 8'	2	22.75	45.50
bottom	3/4" x 4' x 8'	2	22.75	45.50
Insulation (roof)	1" x 4' x 8'	2	12.00	24.00
				$237.71
			+ 20% misc. =	$285.25

Remodeling:

Line the interior of the building up to 4' with 3/4" plywood to protect the walls from the sows.

6 sheets needed @ \$22.75 = \$136.50

partitions inside building (2" x 8" by 4 boards high)

need 72 linear feet ∴ we need (4)(72) = 288 ft

need 36 -- 8' x 2" x 8" @ \$4.20 = \$151.20

This lumber must be pressure treated.

Fencing Needed:

200 ft of hog panel @ .80/ft = \$160

Posts every 8 ft = 25 posts @ 1.75 = \$43.75

Feeders:

40' of wooden trough for sows and gilts: 5 @ \$82.50/8 ft

For boars: two 2-ft steel troughs @ \$11.00 = \$22.00

Waterers:

Two 2-hole waterers @ \$95 = \$190 (frost-proof)

PLUS One 1-hole frost-proof waterer = \$75

3/4" frost-proof water hydrant ≈ \$42

Approximate cost to run 6' deep water lines 220 ft @ 3.00/ft = \$600

220 ft 3/4" plastic pipe = \$22.00

Electrical line for water heaters 220' @ .42/ft = \$92.40

Conduit 220' @ .20/ft = \$44.00

Waste Handling:

Bedding will be used so waste will be handled as a solid. A shovel or loader will be used to remove wastes from building, around waterers and feeders and the lot area.

Ventilation:

The building will be naturally ventilated with an open ridge. Two circulation fans in the building may be needed during the summer. Cut windows in rear section.

Cost of Concrete:

Inside area: 40' x 32' = 1280 ft^2 @ \$.58/ft^2 = \$742.40

Outside lot area: 40' x 20' = 800 ft^2 @ \$.58/ft^2 = \$464.00

Apron: 40' x 8' = 320 ft^2 @ \$.58/ft^2 = \$185.60

Doors:

Front: 2" x 4" framing, 1/2" plywood, doors come down 4 ft

Need Five 8-ft doors; each door has four 8' x 2" x 4" + 1 sheet 1/2" plywood

5 @ \$25.00 = \$125.00

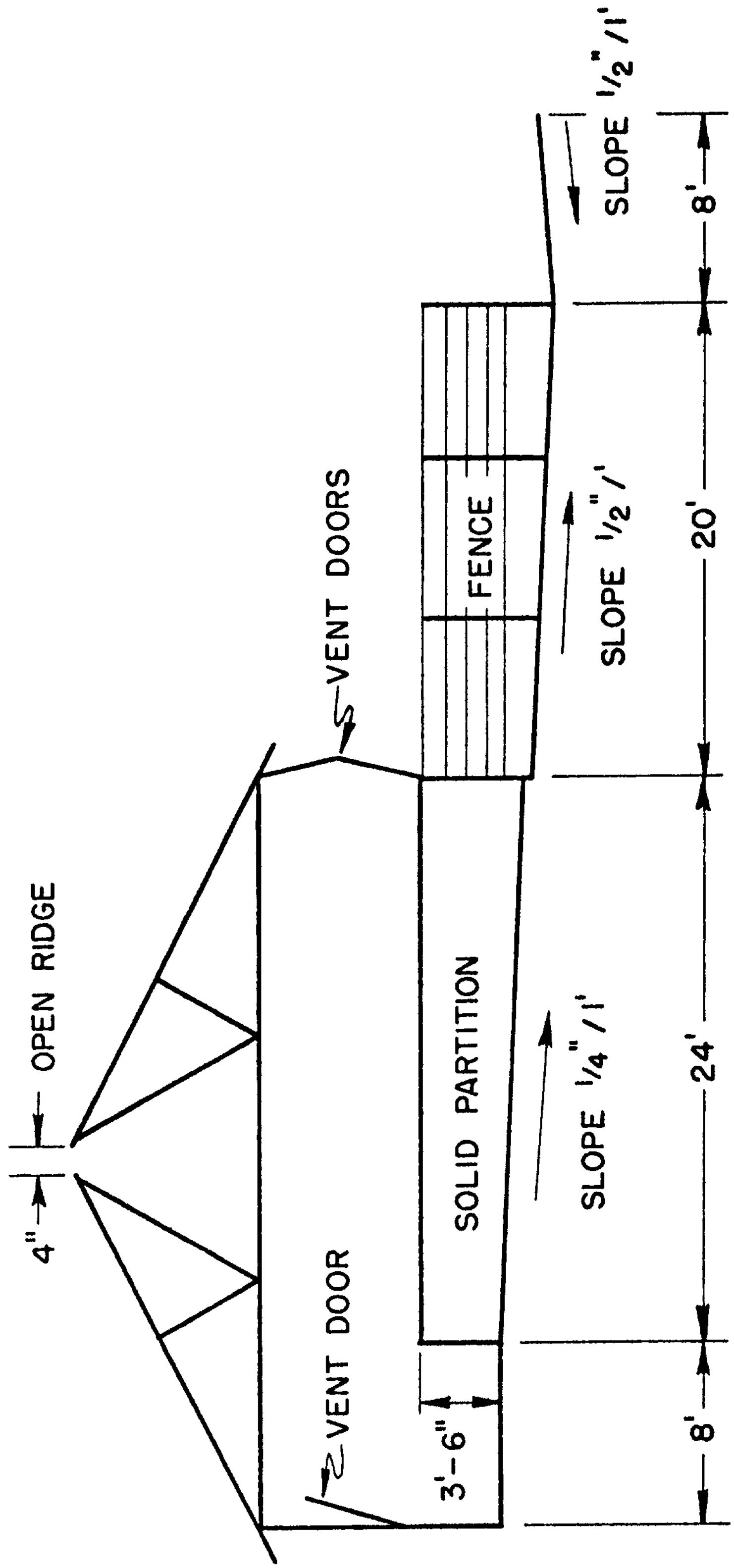
Back: 4 windows at 2' x 4', 2" x 4" framing → need 12 ft/window + 8ft^2 1/2" plywood

4 at \$8.00 = \$32.00

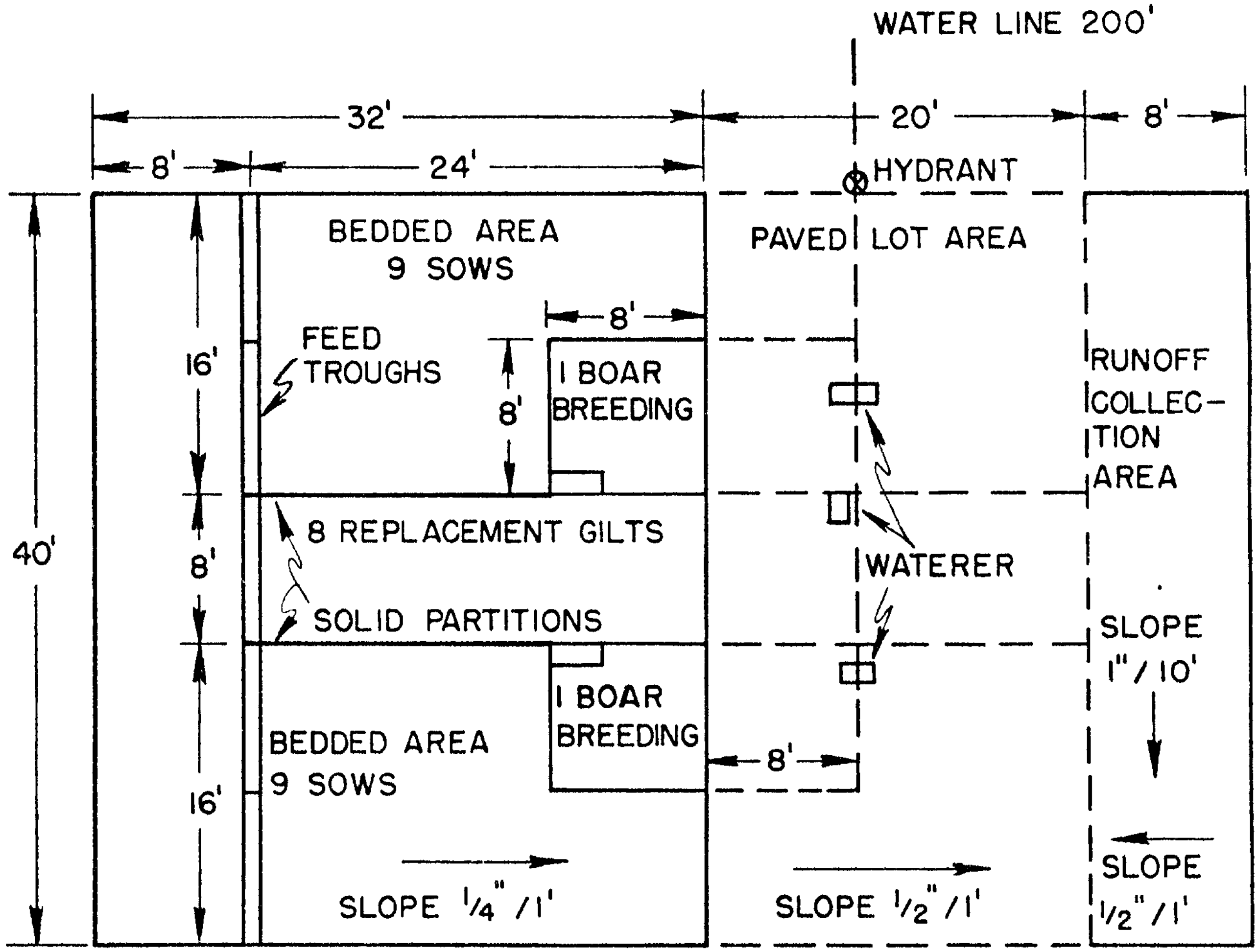
Gestation System 2 - Remodeled Pole Building, 18 sows, 8 gilts, 2 boars

A typical sized pole building is 32' x 40', which may be an old hay shed, machine shed, or storage area with or without a concrete floor. A plan is given to show how such a building may be remodeled for the above number of breeding stock. It is more space than necessary for this number of animals, but we are assuming that the building is already on the farmstead. It will be naturally ventilated with an open ridge so a constant temperature will not be maintained.

CROSS SECTION OF GESTATION SYSTEM 2



GESTATION SYSTEM 2



Gestation System 3 - Open Front Shed with Lot. 18 sows, 8 gilts, 2 boars

Bill of Materials - Open front shed with lot (MWPS - 72692)

Building Dimensions 16' x 32'

Item	Description	No.	Unit Cost	Total
Poles (pressure treated)	4 x 4 x 12'	5	$ 9.60	$ 48.00
	4 x 4 x 10'	5	8.00	40.00
	4 x 4 x 8'	5	6.40	32.00
Girders	2 x 8 x 16'	4	8.32	33.28
	2 x 6 x 16'	8	6.24	49.92
Rafters	2 x 4 x 18'	17	5.20	88.40
Purlins	4"x 1"x 16'	20	2.40	48.00
Facia	2 x 6 x 16'	4	6.24	15.12
	1 x 8 x 16'	2	7.56	24.96
Girts (back)	2 x 6 x 16'	6	6.24	37.44
	2 x 4 x 16'	2	3.78	7.56
(sides)	2 x 6 x 16'	8	6.24	49.92
Doors (framing)	2 x 4 x 8'	30	1.89	56.70
	3/8"plywood 192 ft^2		14.88/32 ft^2	89.28
Roof	18 x 32 = 576 ft^2	.038 Aluminum @	19.00/32 ft^2	342.00
Walls (back)	144 ft^2	3/4" Plywood @	22.75/32 ft^2	102.38
(sides)	236 ft^2	1/2 @ 1/2"	16.65/32 ft^2	61.40
	236 ft^2	1/2 @ 3/4"	22.75/32 ft^2	83.90
[Insulation on ceiling if steel roof is used 576 ft^2]	4' x 8' x 1-1/2" polystyrene		= 6.75/32 ft^2	121.50
				1331.76
			+ 20% Misc.	266.35
			TOTAL	$1598.11

Concrete Work

In building:	16' x 32' x 4" = 170 ft^3 = 6.3 yd @ 39.00/yd		$ 245.70
	reinforcing 512 ft^2 @ .10/ft^2		51.20
		TOTAL	$ 296.90
Feedlot:	20' x 32' x 4" = 213 ft^3 = 8 yd @ 39.00/yd		312.00
	reinforcing 640 ft^2 @ .10/ft^2		64.00
		TOTAL	$ 376.00
Apron for runoff, collection:	8' x 32' x 4" = 85 ft^3 = 3.2 yd @ 39.00/yd		124.80
	reinforcing 256 ft^2 @ .10/ft^2		25.60
		TOTAL	$ 150.40
		TOTAL CONCRETE	$ 823.30

Pen Dividers - Fencing

Protection for inside walls use 2 x 8 x 8' 3 high, need 24 boards @ 4.16	$ 99.84
Inside pen dividers, 2" x 12" x 8' 3 high, need 18 boards @ 8.00 (solid partitions to help prevent dunging inside)	144.00
Outside fencing, need 132 linear ft. of fence, @ .80/ft	105.60
1 post every 8 ft = 17 @ 1.75	29.75
TOTAL fencing and partitions	$ 380.00

Ventilation - natural ventilation, open doors during summer

Waste handling - This facility will require scraping with a shovel and loader. Waste will be collected on the apron, removed with loader; spreader will be required to dispose of waste on fields.

Feeders: 2'/sow all fed at once or 1'/sow self-fed

Provide: Three 10-hole feeders @ $200	600.00
One 2-hole feeder @ $100	100.00
TOTAL	$ 700.00

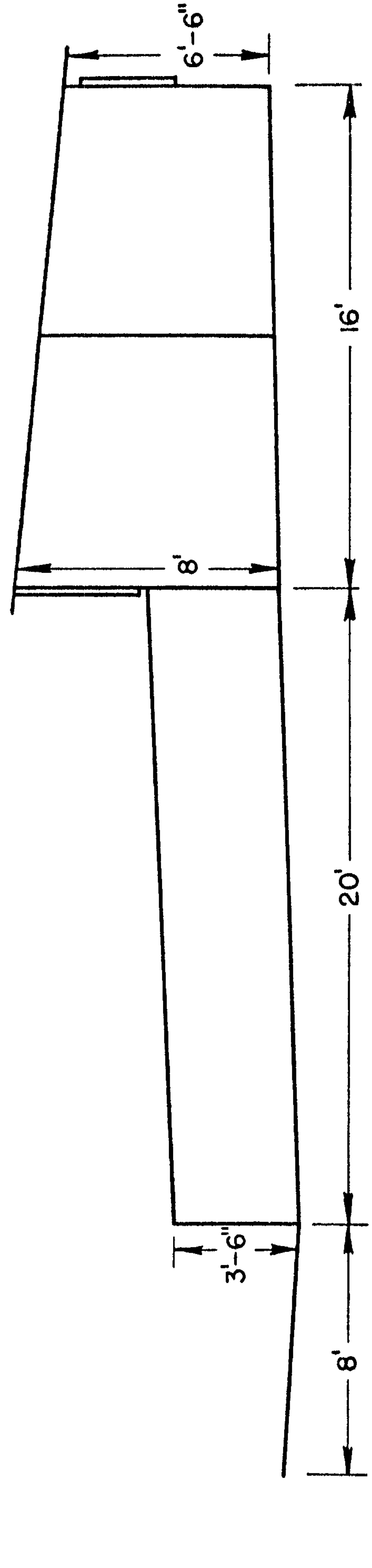
Waterers: 1 foot or cup /10 sows

1 foot or cup/3 boars

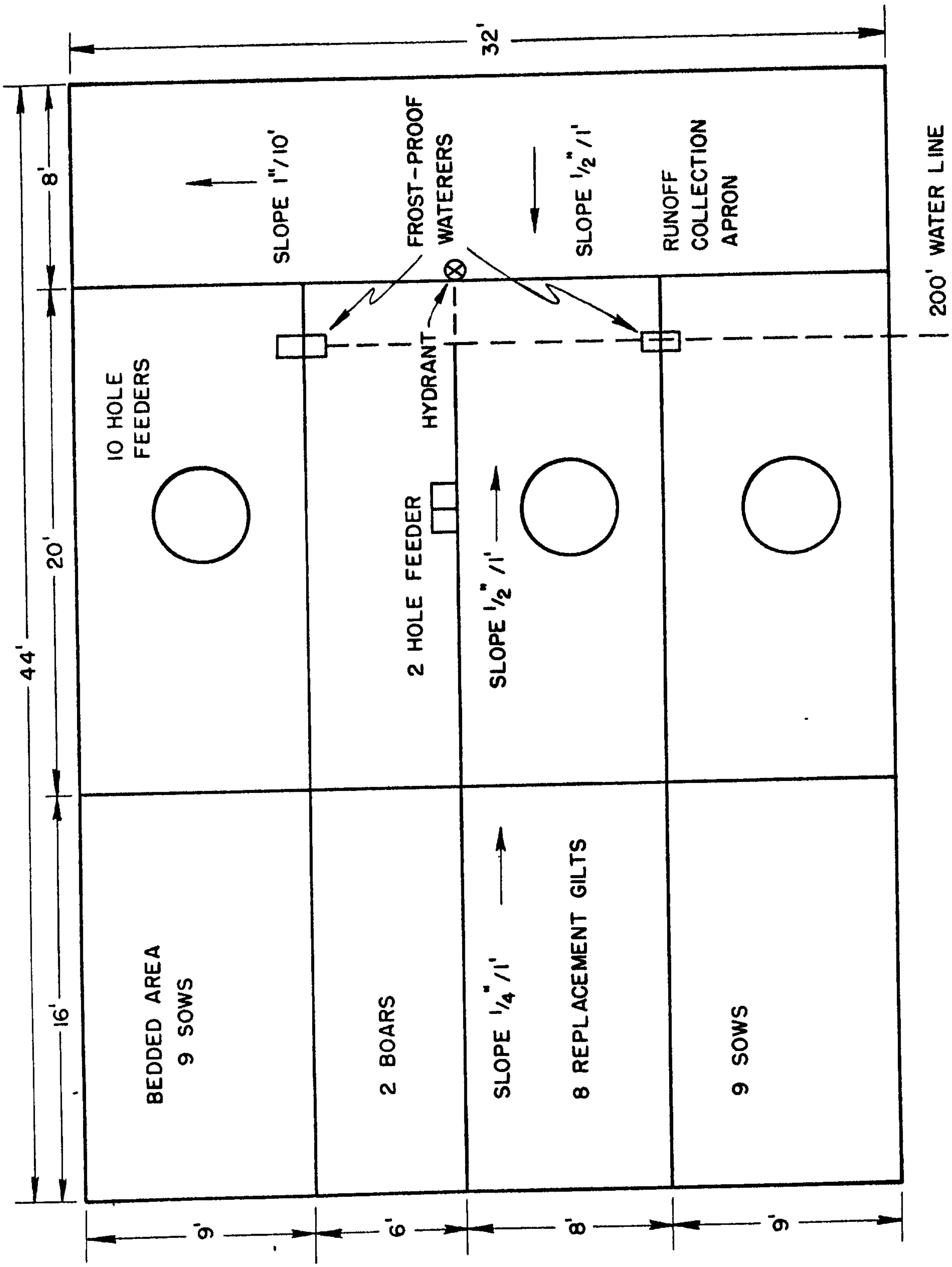
These waterers must be frost-proof

Provide: Two 2-hole frost-proof waterers @ $100	200.00
Approximate cost to run 6' deep water line 200 ft + 24 ft = 224 ft@ 3.00/ft	672.00
250 ft of 3/4" plastic pipe @ .10/ft	25.00
3/4" hydrant	42.00
Electric line for water heaters:	
250 ft or 1" plastic conduit @ .42/ft	105.00
250 ft or (300 volt, 3 conductor, weather-proof, service cable) wire @ .79/ft	197.50
	1241.50
+ 20% Misc.	248.50
TOTAL	$1490.00

GESTATION FACILITY 3



GESTATION FACILITY 3



Concrete Work:

In building 16' x 64' x 4" = 340 ft^3 = 12.6 yd @ 39.00/yd	$ 491.40
reinforcing 1024 ft^2 @ .10/ft^2	102.40
	593.80
Feedlot: 20' x 64' x 4" = 426 ft^3 = 16 yd @ 39.00/yd	624.00
reinforcing 1280 ft^2 @ .10/ft^2	128.00
	752.00
Apron for runoff, collection:	
8' x 32' x 4" = 170 ft^3 = 6.4 yd @ 39.00/yd	149.60
reinforcing 512 ft^2 @ .10/ft^2	51.20
	300.80
TOTAL Concrete	$ 1646.60

Pen Dividers - Fencing:

Protection for inside walls use:	
2 x 8 x 8' 3 high, need 36 boards @ 4.16	149.76
Inside pen dividers (solid partitions to help prevent dunging inside):	
2" x 12" x 8' 3 high, need 42 boards @ 8.00	336.00
Outside fencing:	
need 244 linear feet of fence @ .80/ft	195.20
1 post every 8 ft = 31 @ 1.75	54.25
TOTAL	$ 735.00

Ventilation - natural ventilation

Waste Handling:

This facility will require scraping with a shovel and loader. Waste will be collected on the apron and removed with loader; a manure spreader will be required to dispose of the waste on the fields.

Feeders: 2'/sow (all fed at once) or 1'/sow self-feed

Provide: Three 16-hole feeders @ 325.00		$ 975.00
Two 2-hole feeders @ 100.00		200.00
	TOTAL	$1175.00

Waterers:

1 foot or cup/10 sows

1 foot or cup/3 boars

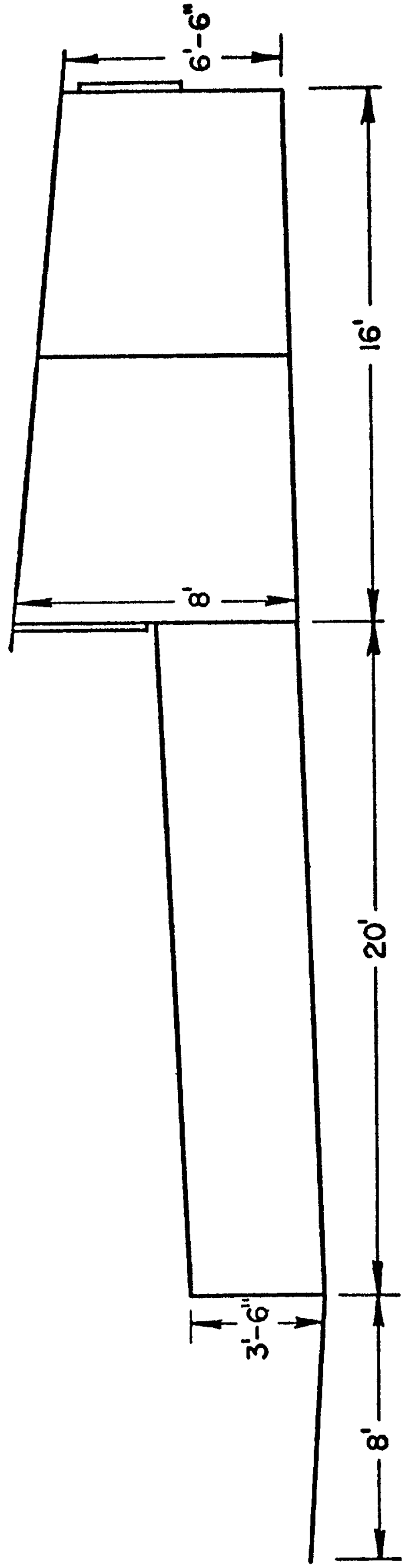
These waterers must be frost-proof

Provide: Four 2-hole frost-proof waterers @ 100.00		$ 400.00
Approximate cost to run 6' deep water line:		
200 ft + 55 ft = 255 ft @ 3.00/ft		765.00
300' of 3/4" plastic pipe @ .10/ft		30.00
3/4" hydrant		42.00
Electric line for water heaters:		
300 ft of 1" plastic conduit @ .42/ft		126.00
300 ft of (300 volt, 3 conductor, weatherproof , service cable) wire @ .79/ft		237.00
		1600.00
	+ 20% Misc.	320.00
	TOTAL	$1920.00

Feed System

3 ton bin capacity, auger system	$1625.00

GESTATION FACILITY 3



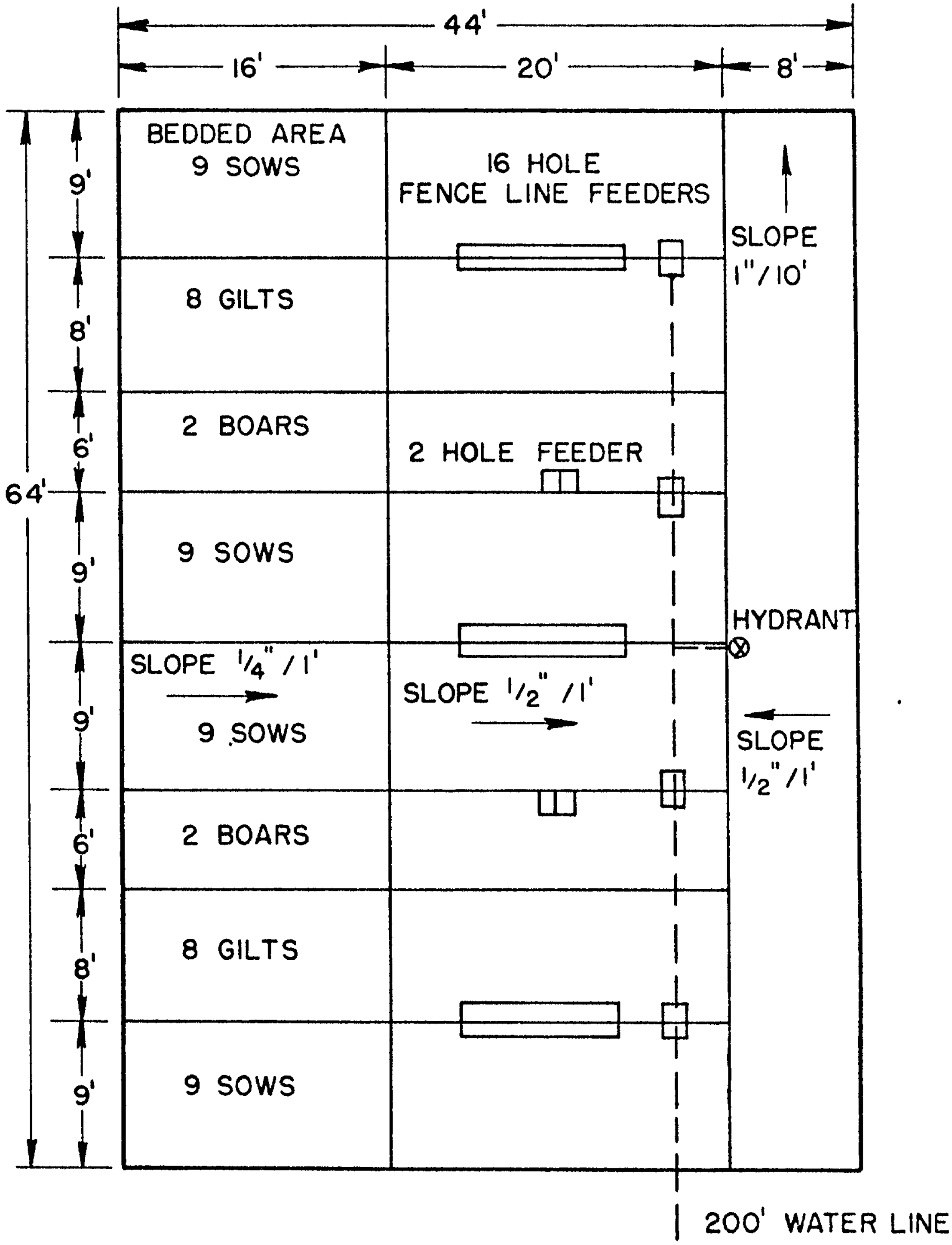
Gestation System 4 - Open Front Shed with Lot. 36 sows, 16 gilts, 4 boars

Bill of Materials - Open front shed with lot (MWPS - 72692)

Building Dimension 16' x 64'

Item	Description	No.	Unit Cost	Total
Poles (pressure treated)	4 x 4 x 12'	9	$ 9.60	$ 86.40
	4 x 4 x 10'	9	8.00	72.00
	4 x 4 x 8'	9	6.40	57.60
Girders	2 x 8 x 16'	8	8.32	66.56
	2 x 6 x 16'	16	6.24	99.84
Rafters	2 x 4 x 18'	33	5.20	171.60
Purlins	4"x 1"x 16'	40	2.40	96.00
Facia	2 x 6 x 16'	8	6.24	49.92
	1 x 8 x 16'	4	7.56	30.24
Girts (back)	2 x 6 x 16'	12	6.24	74.88
	2 x 4 x 16'	4	3.78	15.12
(sides)	2 x 6 x 16'	8	6.24	49.92
Doors (framing)	2 x 4 x 8'	60	1.89	113.40
	3/8" plywood	384 ft^2	14.88/32 ft^2	178.56
Roof	18 x 64 = 1152 ft^2	.038 Aluminum @	19.00/32 ft^2	684.00
Walls (back)	288 ft^2	3/4" Plywood @	22.75/32 ft^2	204.75
(sides)	236 ft^2	1/2 @ 1/2"	16.65/32 ft^2	61.40
		1/2 @ 3/4"	22.75/32 ft^2	83.90
[Insulation on Ceiling if steel roof is used 1152 ft^2]	4' x 8' x 1-1/2" polystyrene =		6.75/32 ft^2	243.00
				2439.07
			+ 20% Misc.	487.81
			TOTAL	$2926.88

GESTATION FACILITY 4



Gestation System 5 - New Pole Building. 54 sows, 24 gilts, 6 boars

Bill of Materials - Naturally ventilated pole building with a scrape alley (MWPS - 72055)

Building Dimension 30' x 80'

Item	Description	No.	Unit Cost	Total
Concrete	cu. feet	12	\$40.00/ 27 ft^3	\$ 18.00
Poles	6"x 6"x 16'	12	34.40	413.00
pressure treated	4"x 4"x 16'	11	12.80	141.00
Girders	2 x 10 x 16'	20	14.27	285.00
Bracing	1/2"x 4' x 8' c-c Ext. Ply	5	10.72	54.00
	2 x 4 x 12'	10	3.47	35.00
	2 x 6 x 6'	6	2.34	14.00
	2 x 6 x 7'	8	2.73	22.00
Trusses		21 4' oc		1176.00
Girts	2 x 4 x 16'	45	4.62	208.00
	2 x 4 x 18'	45	5.20	234.00
	2 x 6 x 16'	38	6.24	237.00
Skirt (pressure treated)	2 x 6 x 16'	18	8.32	150.00
Siding	Sq. feet .038 Aluminum	2030	19.00/32 ft^2	1205.00
Roofing	Sq. feet .038 Aluminum	2880	19.00/32 ft^2	1710.00
	Ln feet eaves trough	162	3.80/10 ft	62.00
Main door (One at each end of alley)	4"x 4"x 12'6"	4	9.46	38.00
	2 x 6 x 2'	1	.78	1.00
	1"x 6"x 10'	11	1.84	20.00
Large Doors (dunging alley doors - framing)	2 x 4 x 10'	16	2.89	46.00
Ventilation door framing	2 x 4 x 8'	90	1.89	170.00
				6239.00
			+ 20% Misc.	1248.00
			TOTAL	\$7487.00

Cost of Concrete Floor: 30 x 80 x 4" = 800 ft^3 = 30 yds @ \$40/yd — 1200.00

reinforcing (2400)(.10/ft^2) — 240.00

1440.00

Insulation

Wall area = 2200 ft^2 Use 2" x 4' x 8' polystyrene, cover 1/2" of 3/4" plywood and 1/2" of 1/2" plywood:

insulation: (2200 ft^2)(8.88/32 ft^2)	$ 611.00
plywood: (2200/2)(16.64/32 ft^2)	572.00
(1/2 @ 1/2", 1/2 @ 3/4"): (2200/2)(22.75/32 ft^2)	782.00
vapor barrier: (2200)(.02/32 ft^2)	44.00

Ceiling area = (2)(17 x 80) = 2720 ft^2 Use 1/2" plywood with 2" x 4' x 8' polystyrene:

insulation: (2720)(8.88/32 ft^2)	755.00
plywood: (2720)(16.64/32 ft^2)	1414.00
vapor barrier: (2720)(.02/32 ft^2)	54.00
TOTAL INSULATION COST	$ 4232.00

Plumbing - cost to install new water line:

6' deep water line trench 280' @ 3.00/ft	$ 840.00
310' of 3/4" plastic pipe @ .10/ft	31.00
3/4" frost-proof hydrant	.42.00
	913.00
+ 20% Misc.	183.00
TOTAL	$ 1096.00

Electrical - electric line for water heaters:

310' of 1" plastic conduit @ .42/ft	$ 130.00
310' of (300 volt, 3 conductor, weatherproof , service cable) wire @ .79/ft	245.00
100 amp main switch circuit breaker: $52.00 + 6 breakers @ 3.00	70.00
Six 100-Watt enclosed light fixtures @ 8.50	51.00
Non-metalic dust and watertight outlets 6 @ 10.00	60.00
Type U.F. cable for inside circuits ≈ 200 ft @ .35/ft	70.00
	626.00
+ 20% Misc.	125.00
TOTAL	$ 751.00

Waterers

Five 2-hole frost-proof waterers @ 100.00		$ 500.00

Feeders

Five 2-trough, 8 ft 8-door feeder @ 323.00		$ 1615.00
Five 2-trough, 6 ft 6-door feeder @ 263.00		1315.00
	TOTAL	$ 2930.00

Pen Dividers

2" x 12" x 8' 3 high, need 66 boards @ 8.00		$ 528.00
Forty 4" x 4" x 8' posts @ 6.40		256.00
80 ft of hog panel @ 1.00/ft		80.00
Eleven 8-ft gates @ 35.00		385.00
		1249.00
	+ 20% Misc.	251.00
	TOTAL	$ 1500.00

Ventilation

Naturally ventilated with an open ridge, vent doors and an open front during warm weather.

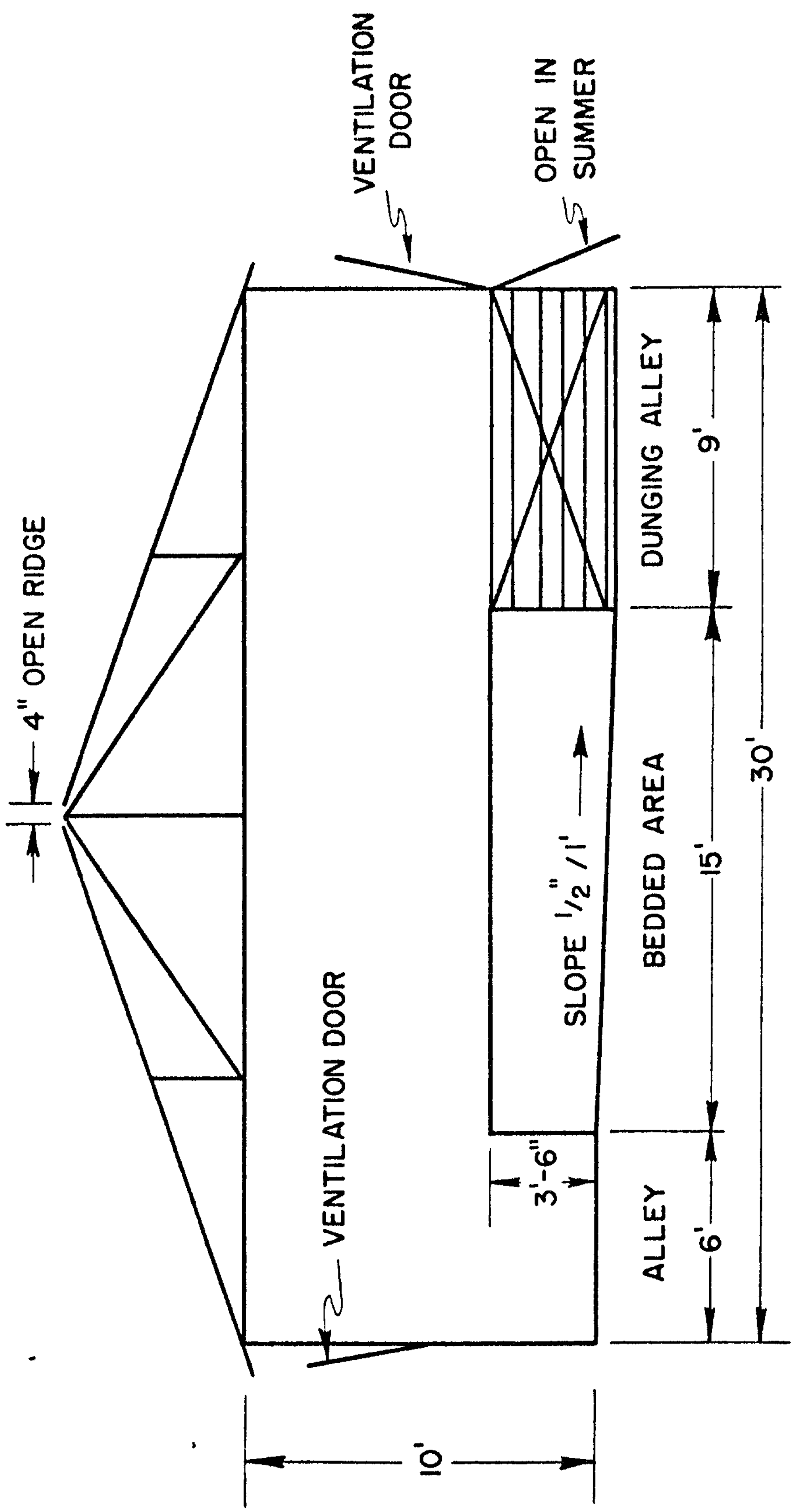
Manure Handling

Bedding will be used, waste will be handled as a solid. The 9' alley can be scraped clean with a small skid steer loader.

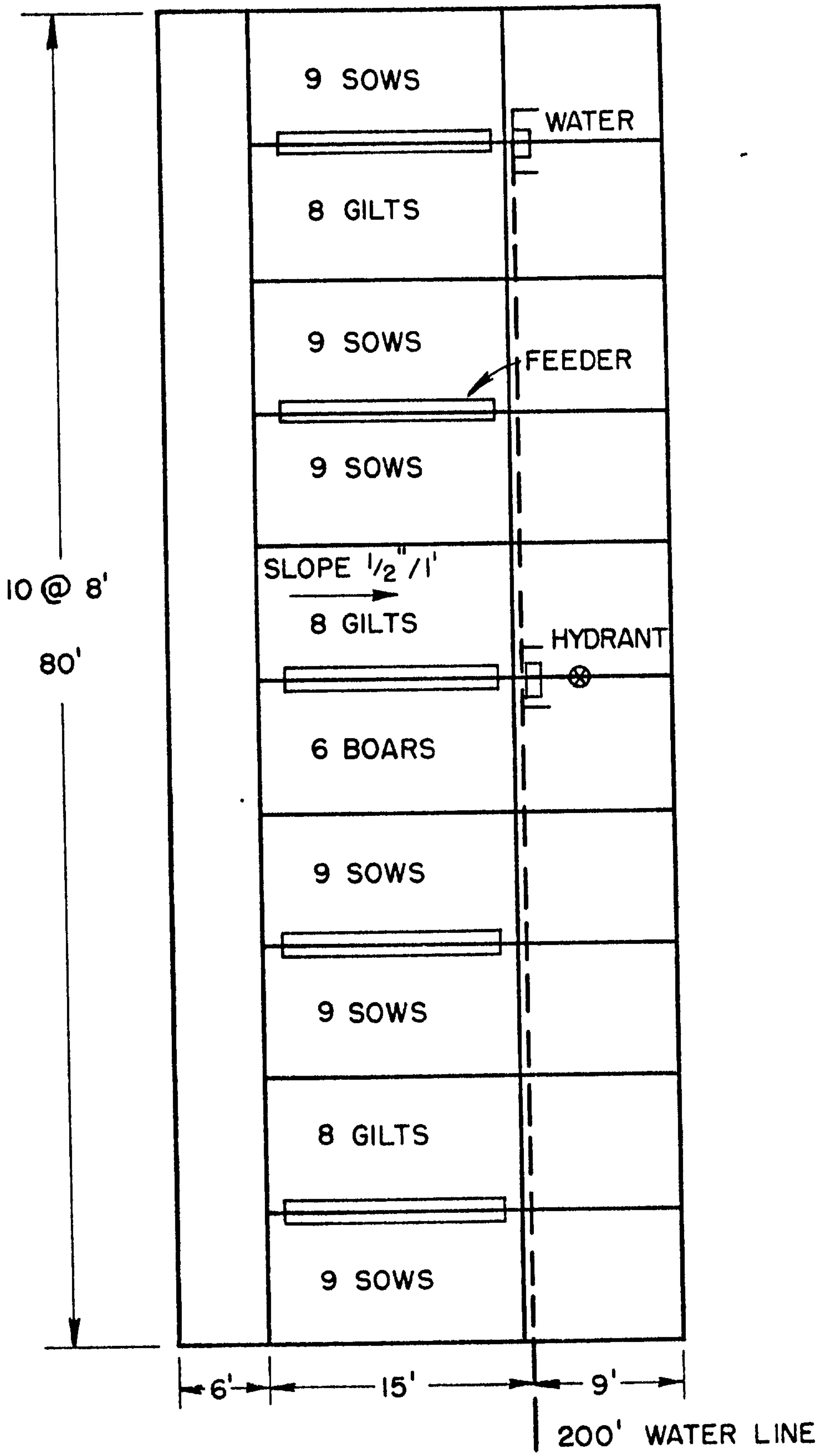
Feed System

A 4.4 ton capacity bin will be used with an auger system	$ 1928.00

GESTATION FACILITY 5



GESTATION SYSTEM 5



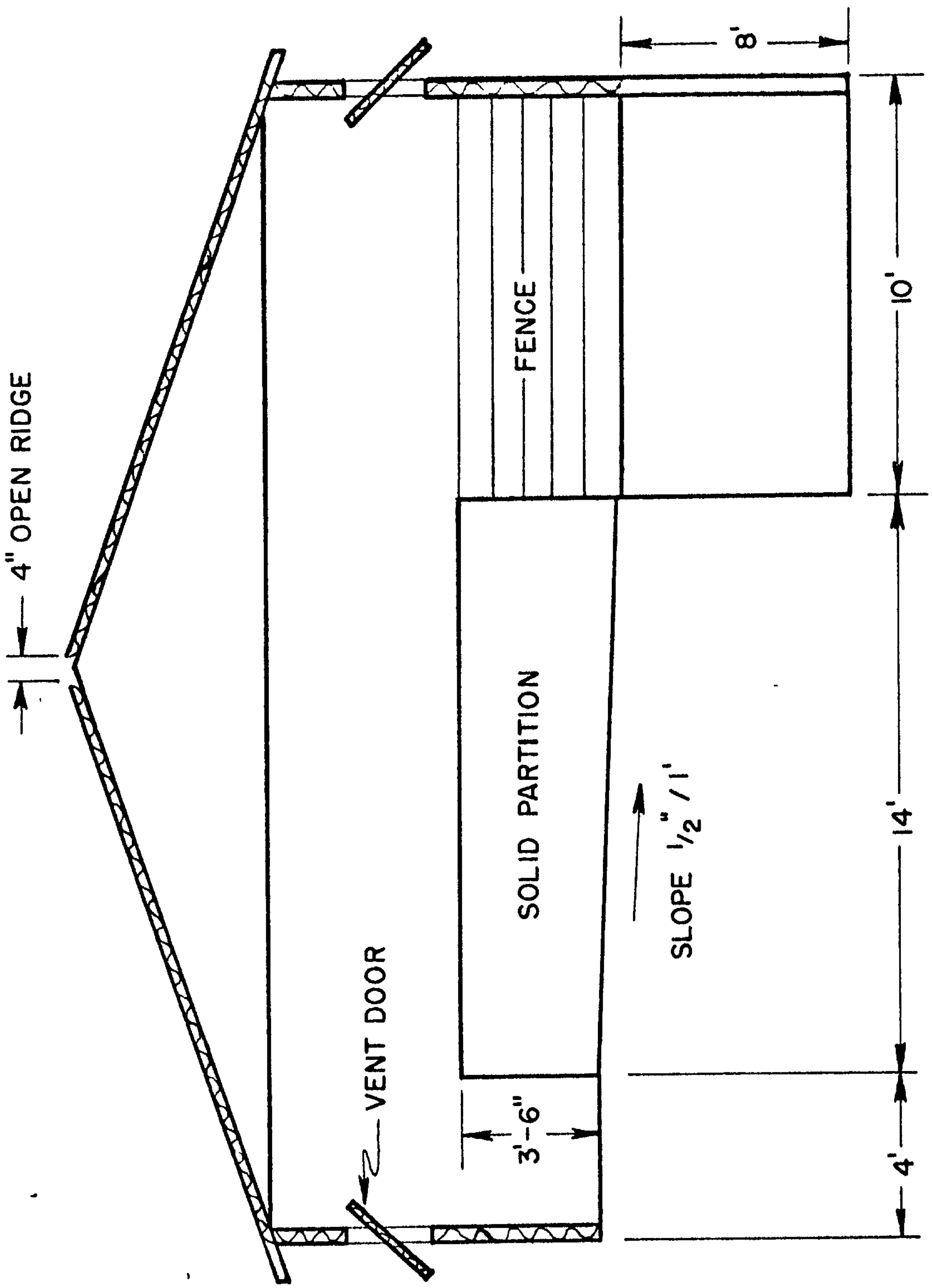
Gestation System 6, 7 and 8

These facilities will be complete turn-key buildings. The cost to install water lines and electrical service is the same as in farrowing system 8. Each building will be equipped with an automatic auger feed system.

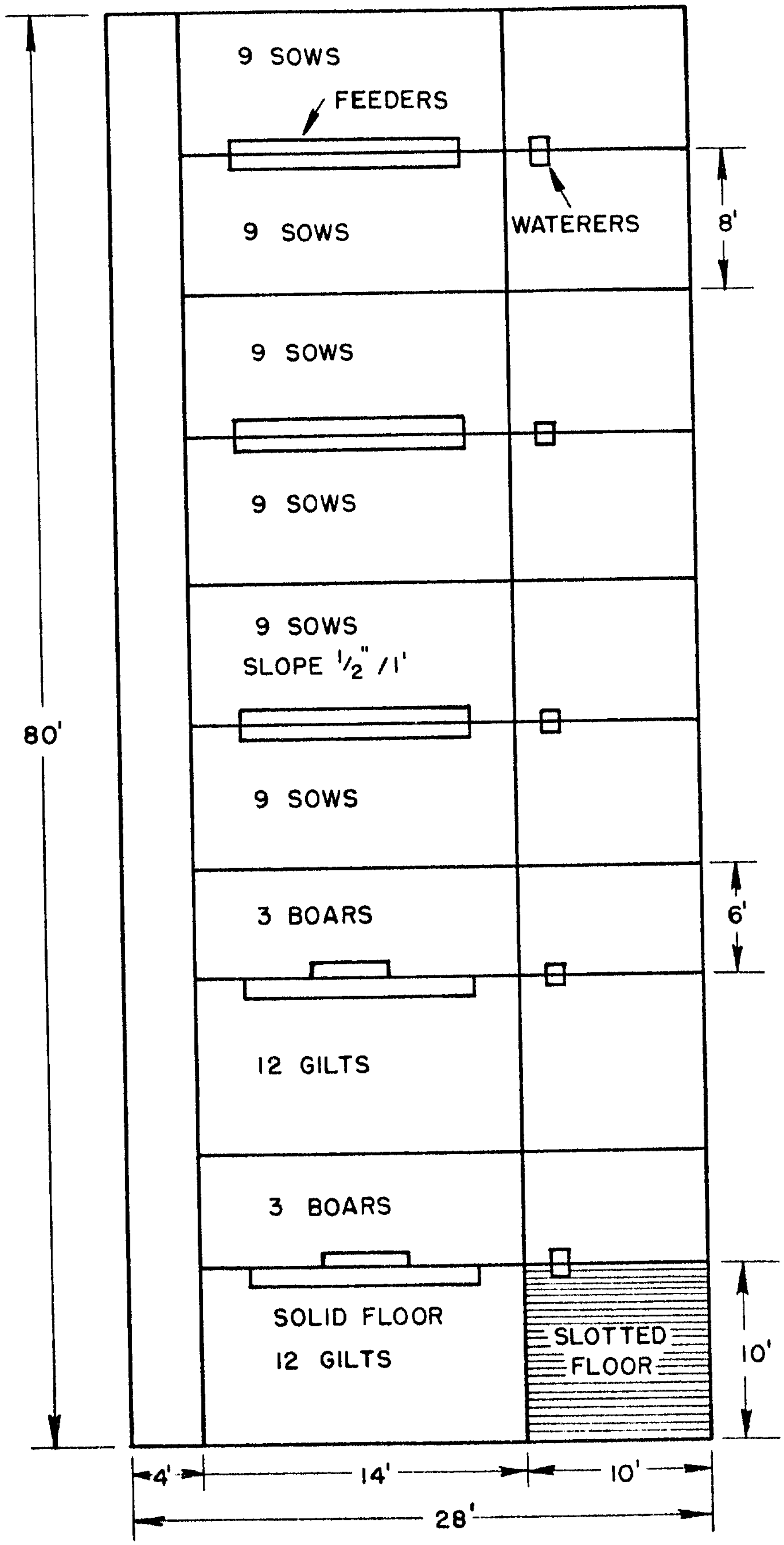
Lagoon design - see page

Irrigation system - see page

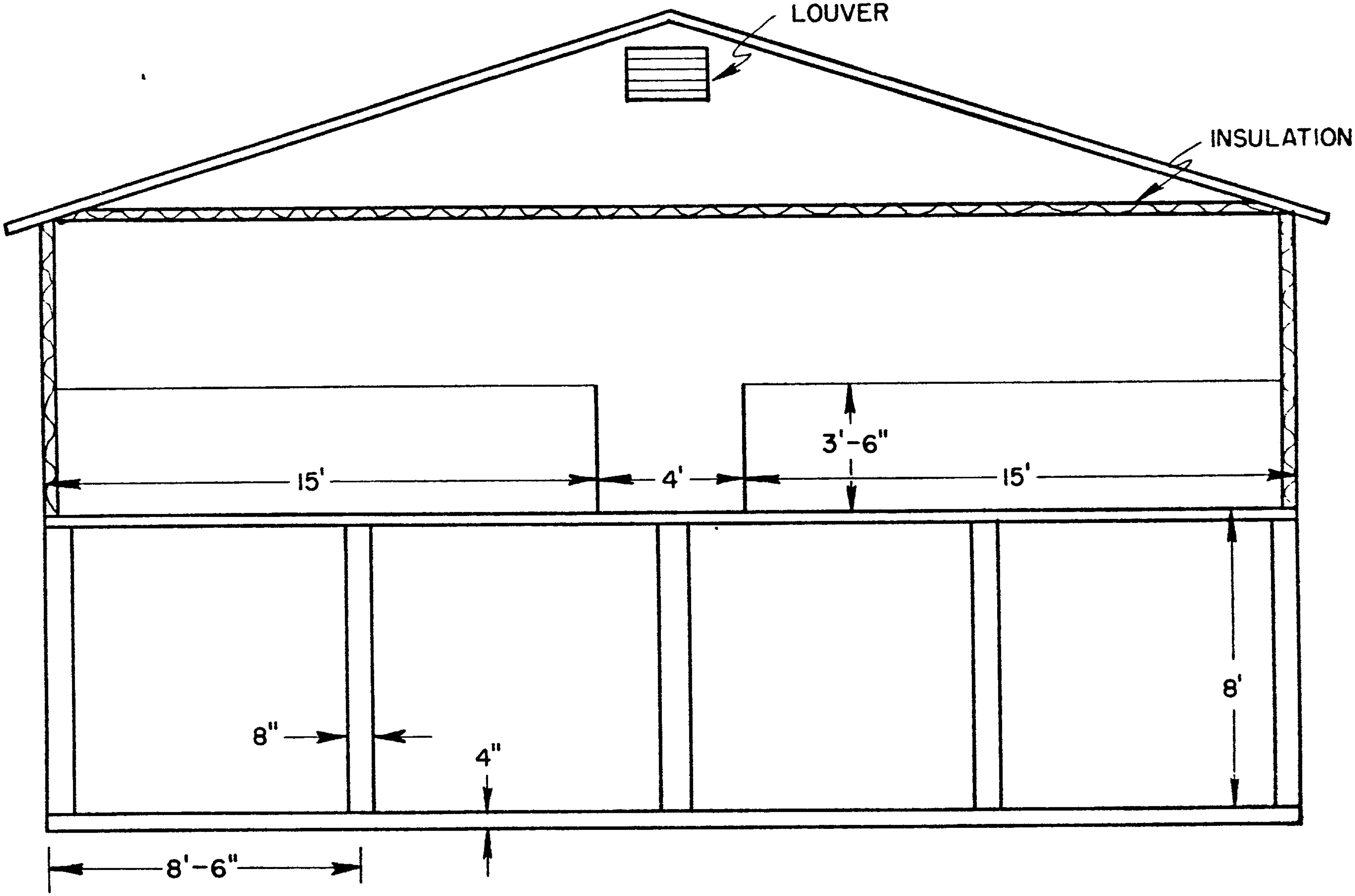
GESTATION FACILITY 6



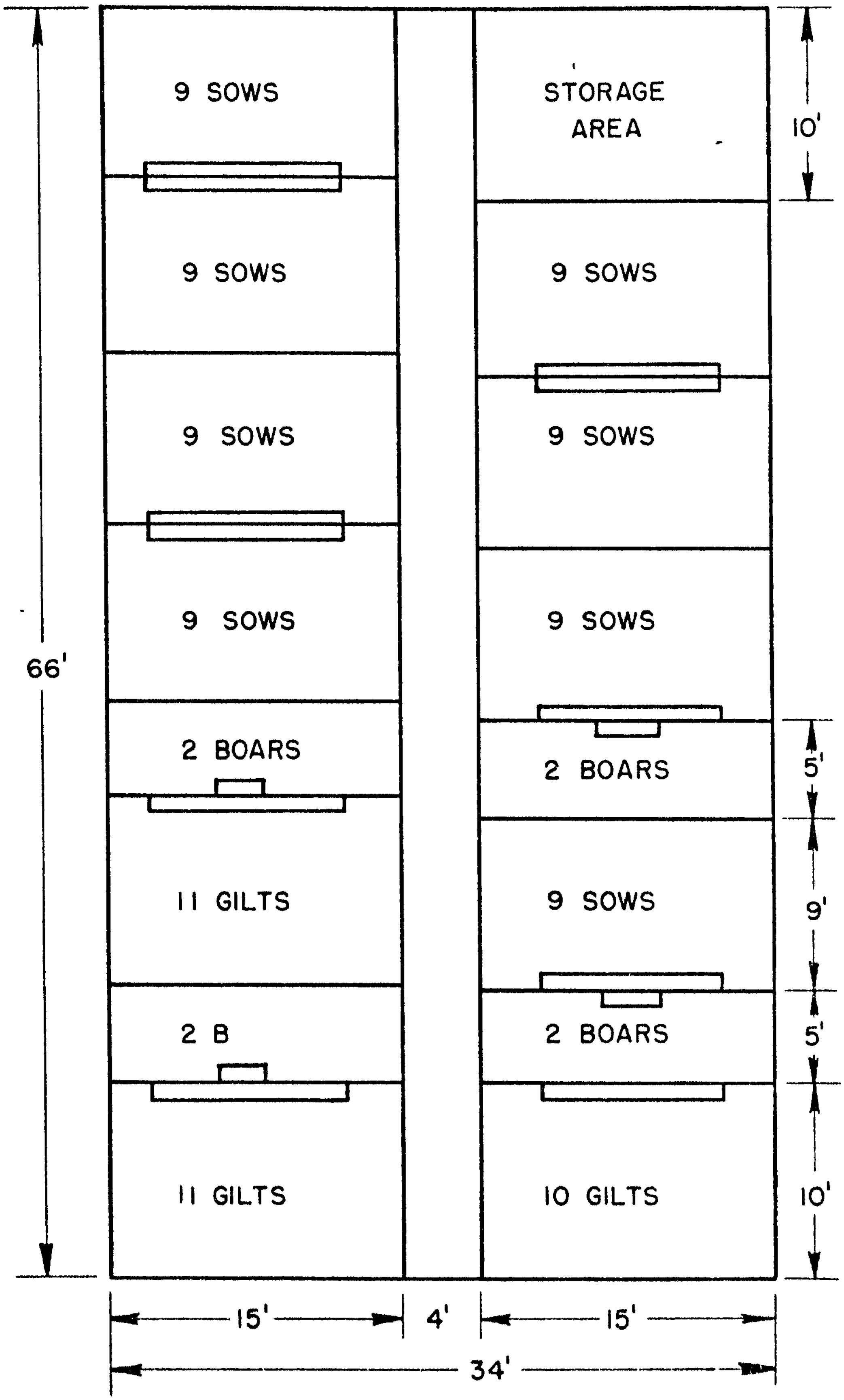
GESTATION SYSTEM 6



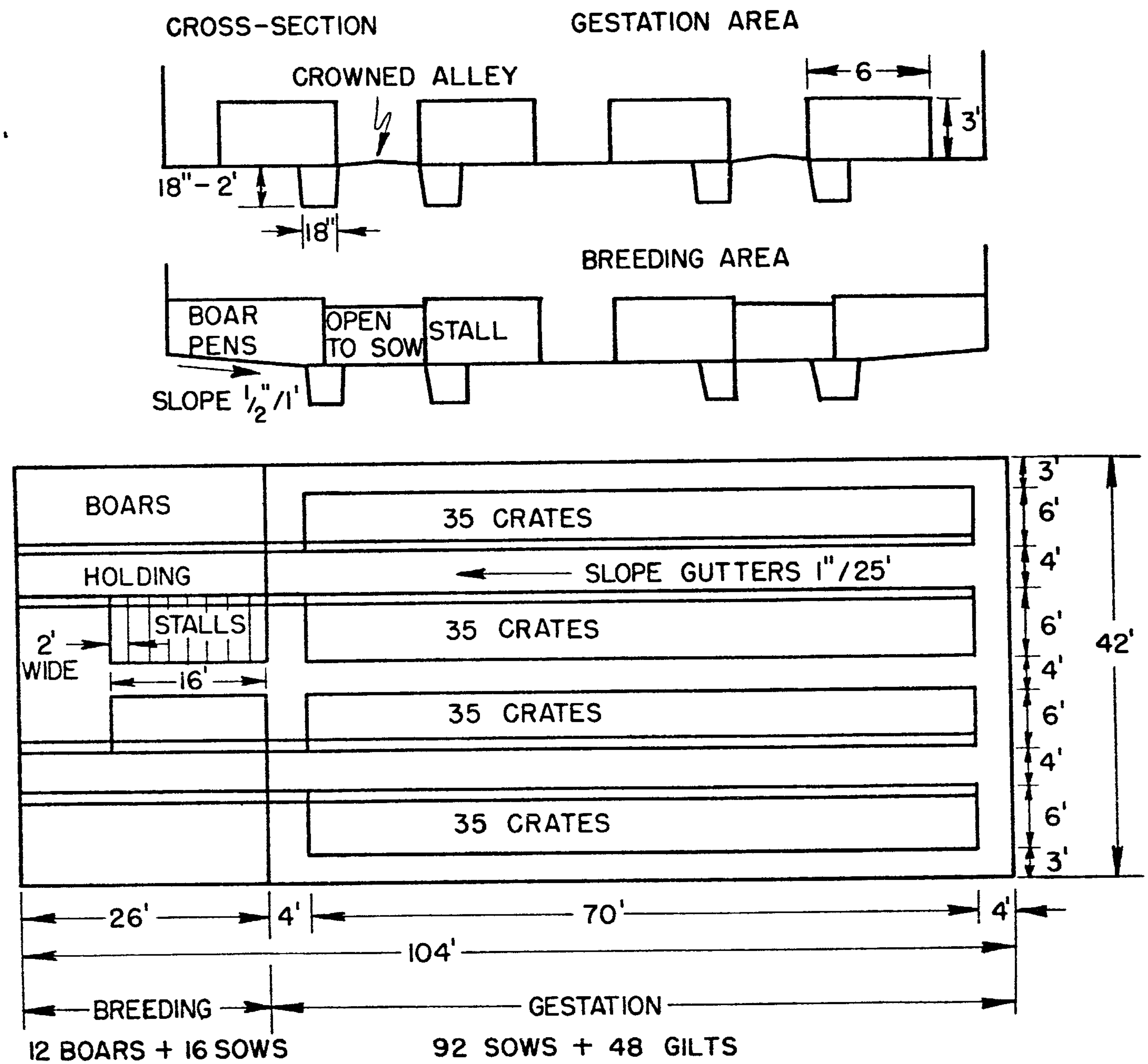
GESTATION SYSTEM 7 — TOTALLY SLOTTED



GESTATION SYSTEM 7



GESTATION FACILITY 8 FLUSHING GUTTER SYSTEM



Finishing System 1

Pasture finishing system during the summer months only. Requires fencing, sun shades, feeders, waterers--low investment.

This system would probably be used by the operator who normally sells 40 lb. feeder pigs but the market is down and he wants to wait and sell them as market hogs when the market is higher.

130 hog capacity

Sun Shade A (MWPS-8) Dimensions 16' x 20'

Number	Description	Unit Cost	Total
2	4" top x 12' poles } pressure treated	$9.60	$ 19.20
2	4" top x 10' poles } pressure treated	8.00	16.00
4	2 x 6 x 16'	6.24	24.96
9	2 x 6 x 20'	7.80	70.20
10	2 x 2 x 12"		1.25
Roof	12' x 20' = 240 ft^2 = 8 sheest of aluminum @ $19.00		152.00
5	2 x 6 x 4'		7.80
8	1/2" x 9" bolts		
			$291.41 + 20%
			= $350

Sun Shade B (MWPS-8) Dimensions 16' x 20'

Number	Description	Unit Cost	Total
2	4 x 6 x 16' pressure treated	$19.20	$ 38.40
4	2 x 4 x 6'	1.42	5.68
4	2 x 4 x 4'		3.78
4	2 x 8 x 16'	8.32	33.28
11	2 x 6 x 20'	7.80	85.80
Roof	12' x 20' = 240 ft^2 = 8 sheets of aluminum at $19/32 ft^2		152.00
8	3" x 3" x 1/3" x 3 1/2" angles		
16	3/8" x 3" lag screws		
8	1/2" x 9" bolts		
8	2 x 4 x 12"		1.89
4	2 x 6 x 4'		6.24
			$327.07 + 20%
			= $392.50

To finish off 130 pigs we require 6 ft^2 per pig over 100 lbs.
∴ we need 130 x 6 = 780 ft^2 of shade area = 3 houses

Waterers: one space/20-25 pigs
∴ we require 5 spaces
2-2 fount waterers @ 150 = $300 — 95 gal. capacity each
1-1 fount waterer @ 120 = $120 — 95 gal. capacity each

These will be filled from a truck equipped with a water tank. Finishing will be done only during the summer so that the waterers to not need to be frost proof.

Finishing System 1 - Continued

Feeders: one space/5 pigs

130/5 = 26 spaces required

2-round feeders, 12 openings @ $250 = $500
or
2-12 opening steel rectangular feeders @ $335 = $670
or
2-8 ft. troughs, operator made wooden troughs @ $55 = $110

Pasture space required: MWPS recommends 50 to 100 growing-finishing pigs/acre depending on fertility of the land

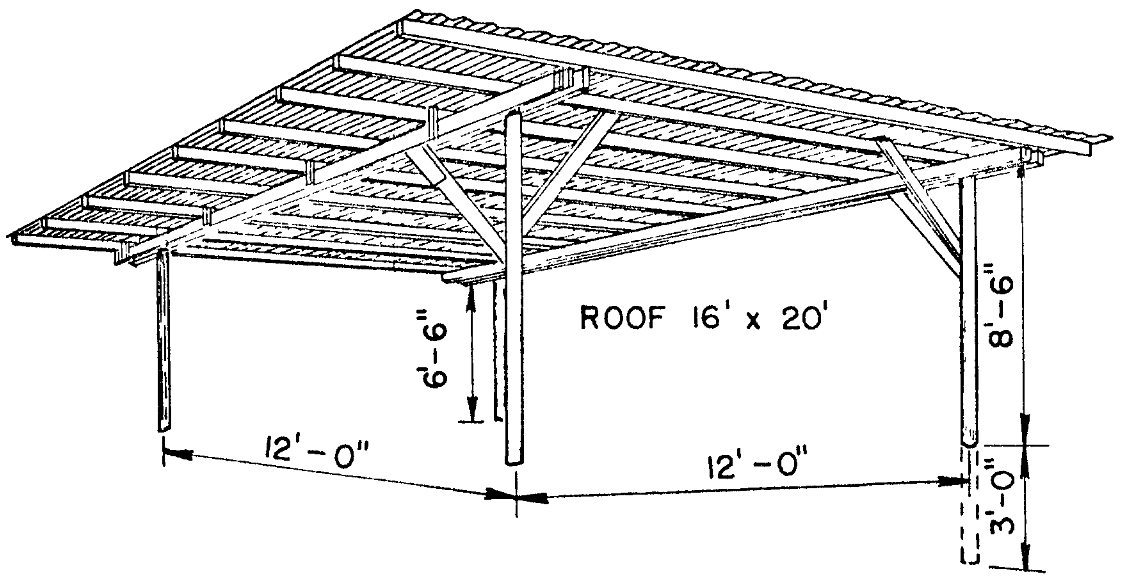
use 2 acres = 295 ft. by 295 ft.

amount of fence required = 1180 ft @ $.80/ft = $944
posts every 8 ft = 150 posts @ $1.75 = $263

Waste Handling

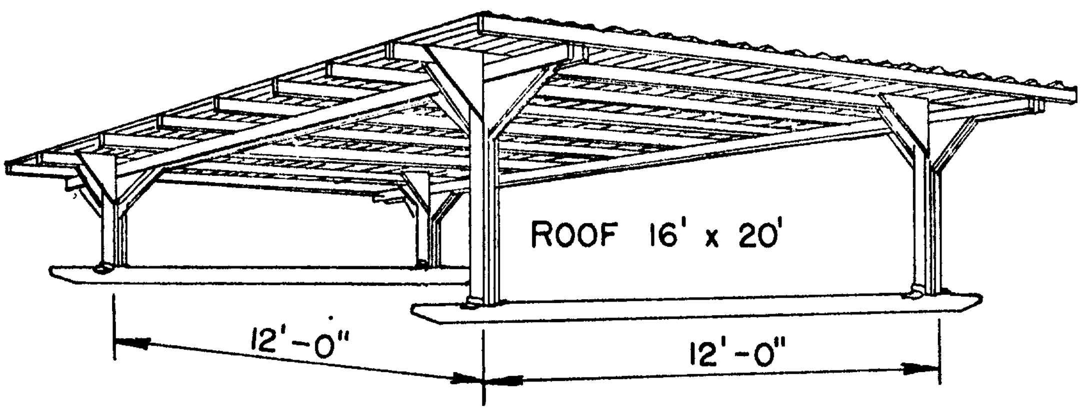
A harrow may be used to groom the pasture between batches.

SUN SHADE FOR FINISHING SYSTEM I



A

SUN SHADE FOR FINISHING SYSTEM I



B

Finishing System 2

Remodeled facility, uninsulated, naturally ventilated
2 rows of pens, concrete floor, center gutter, scrape to storage
130 hog capacity

Space requirements: for 125 lb. and up rovide 8 ft^2/hog

Cost for pen dividers:

pressure treated lumber
8 ft. of pen solid and 5 ft. of pen with spaces in fence without feeders

For solid partition:
2" x 8" x 8' by 5 boards high, need 128 linear feet = 16 at 8' (16)(5) = 80 boards
80 boards at $4.20 = $ 333.

For open portions:
2 x 8 by 3 boards high with spaces, need 110 linear feet = 14 at 8' (3)(14) = 42 boards
42 boards at $4.20 = $177.

Total = $336 + $177 = $513 + 20% = $616

Waterers: plumbing

4-2 hole waterers @ $25 = $10

3/4" water lines 320 ft. @ $.10/ft = $32
3/4" hydrant - $42.00
6' deep 200' trench at $3.00/ft = $600

Feeders:

or
4 at 8 holes @ $250 =$1000
(in fenceline)

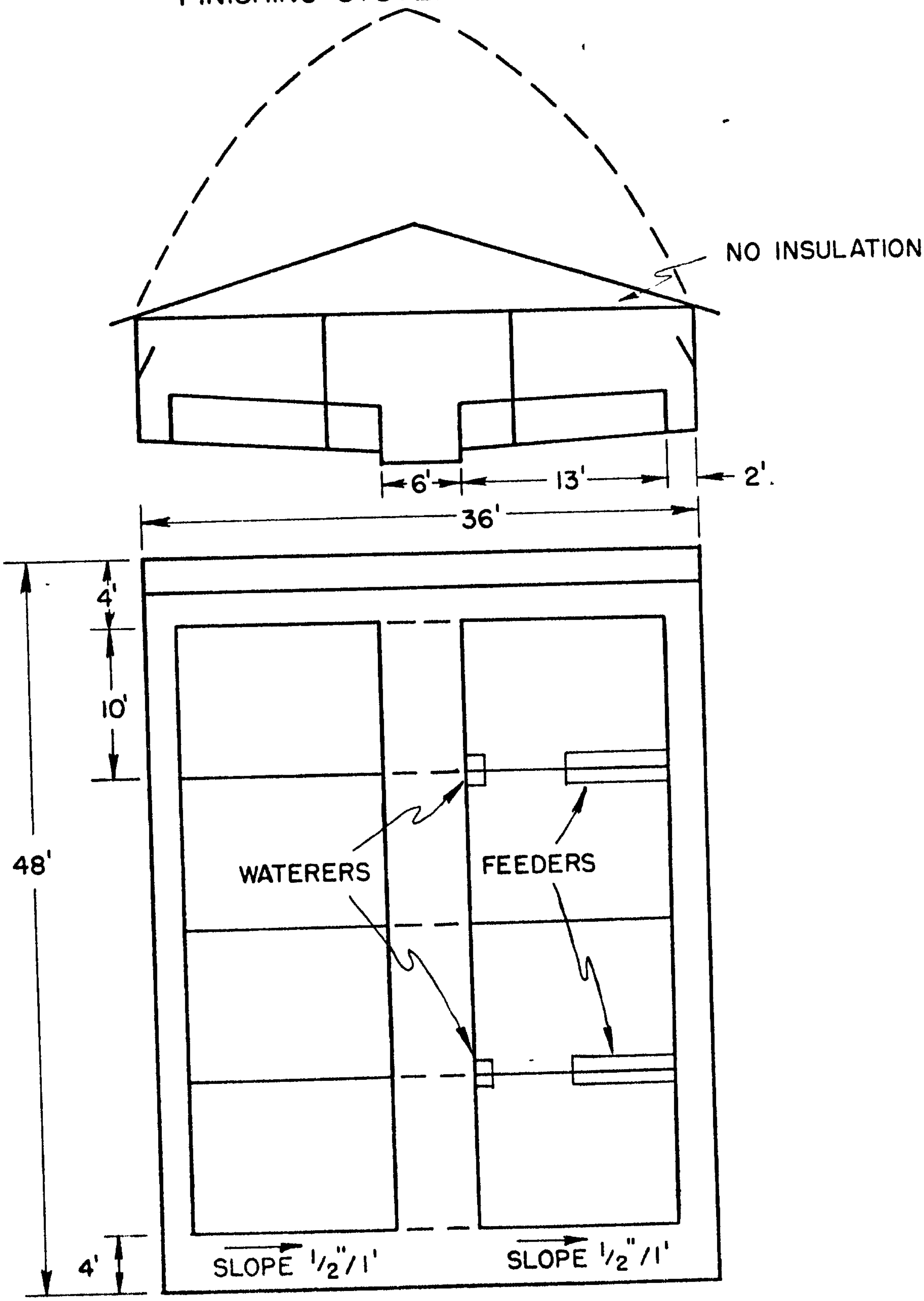
Electrical:

3-100 Watt lights, enclosed fixtures @ $8.50 = $25.50
30 amp main service - $6.50
6 outlets, nonmetallic, dust and water tight @ $10.00 = $60.00
Use type U.F. cable for circuits ~ (150 ft)($.35/ft) = $52.5
AWG 8 feeder circuit cable: Type PWC with THW conductors ≈ (220 ft)($.70/ft) = $173
Trenching to bury lines - lines will be buried with water line
1" plastic conduit (220 ft)($.42/ft) = $92.40

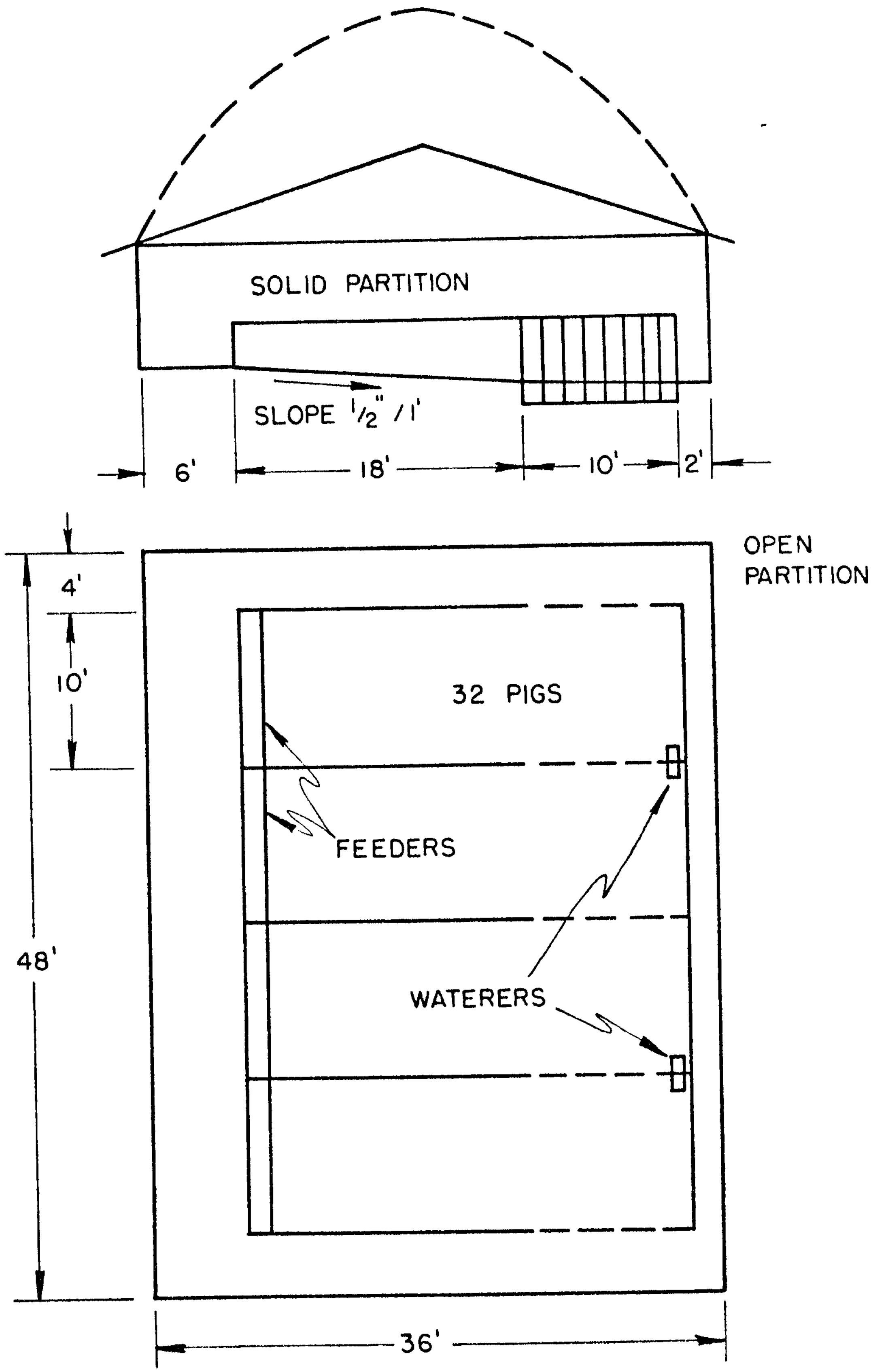
Total = $410 + 20% = $492

Concrete: resloping in building
36' x 48' x 4" = 576 ft^3 ≈ 22 yds. @ $39/yd = $858.
reinforcing area 1728 ft^2 @ $.10/$ft^2$ = $173
Total = $1031

FINISHING SYSTEM 2



ALTERNATIVE FLOOR PLAN FOR FINISHING SYSTEM 2



Finishing System 3 - open front shed with lot - 300 hog capacity

Bill of Materials - Open Front Shed with Lot (MWPS-72687)
Building Size 16' x 96'

Item	Description	No.	Unit Cost	Total
Poles (pressure treated)	4 x 4 x 8'	26	\$ 6.40	\$ 166.40
Girders	2" x 6" x 16'	24	6.24	149.76
Rafters	2 x 4 x 18'	45	5.20	2.34
Purlins	1 x 4 x 16'	72	2.40	172.80
Facia	2 x 6 x 16'	12	6.24	74.88
Girts (back)	2 x 10 x 16'	6	14.00	84.00
	2 x 6 x 16'	12	6.24	74.88
(sides)	2 x 6 x 16'	4	6.24	24.96
Doors (framing)	2 x 4 x 8'	25	1.89	47.25
	3/8" plywood	176 ft^2	\$14.88/32 ft^2	81.84
Roof 18' x 88' = 1728 ft^2		.038 Aluminum	\$19/32 ft^2	1026.00
Walls (back)	96 ft^2	3/4" plywood	\$22.75/32 ft^2	68.25
(sides)	160 ft^2	3/4" plywood	\$22.75/32 ft^2	113.75
Insulation, ceiling	1728 ft^2, 4 x 8 x 1 1/2" ploystyrene		\$6.75/32 ft^2	365.50

Total = \$2452 + 20% (\$490) = \$2942

Concrete Work

In building - 16' x 96' x 4" = 512 ft^3 = 19 yd^2 @ \$39/yd = \$940
reinforcing area 1536 ft^2 @ \$.10/ft^2 = \$153.60

Total = \$893.60

Feedlot area: 40' x 96' x 4" = 1280 ft^3 = 47 yd^2 @ \$39/yd = \$1849
reinforcing area 3840 ft^2 @ \$.10/ft^2 = \$384

Total = \$2233

Total concrete = \$893.60 + \$2233 = \$3126.60

Pen dividers - Fencing

Protection for inside walls use 2 x 8 x 8' 3 high need 45 boards @ \$4.16 = \$187.20

Inside pen divides and solid dividers 2 x 12 x 8' 3 high need 90 boards @ \$4.16 = \$374.40

Outside fencing - need 352 linear feet of fence @ \$.80/ft = \$282
1 post every 8 ft = 23 @ \$5.00 = \$115.00

Total = \$959

Ventilation - Natural ventilation

Finishing System 3 - Continued

Waste Handling

This facility will require scraping with a shovel and loader. Waste will be scraped to the alley area, animals herded out of alley and scraped clean with the loader.

Feeders: 1 space self feed for 5 pigs

provide: 3-double 10 hole feeders @ $500 = $1500

Total - $1500

Waterers:

provide: 3-2 hole frost proof waterers @ $100 = $300

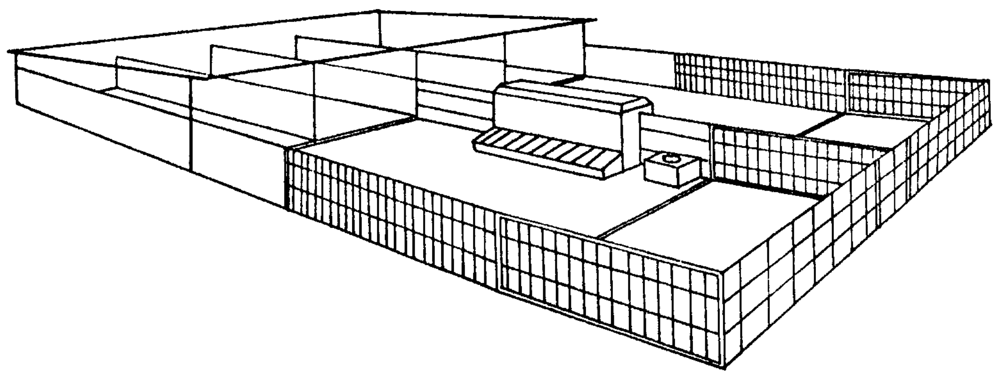
6' deep water line, 300 ft @ $3/ft = $900
300' of 3/4" plastic pipe @ $.11/ft = $30
3/4" hydrant = $42.00
electric line for water heaters:
300 ft of 1" plastic conduit @ $.42/ft = $126
300 ft of wire @ $.79/ft = $237
(300 volt, 3 conductor, weather proof service cable)

Total = $.1635 + 20% = $1962

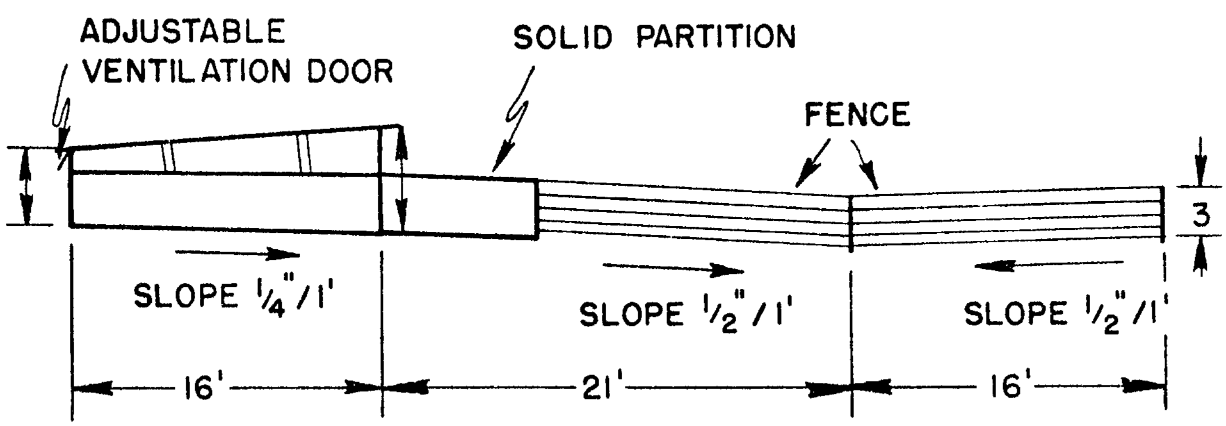
Feed System

A 14.7 ton capacity bin will be required with the automatic auger system = $2808

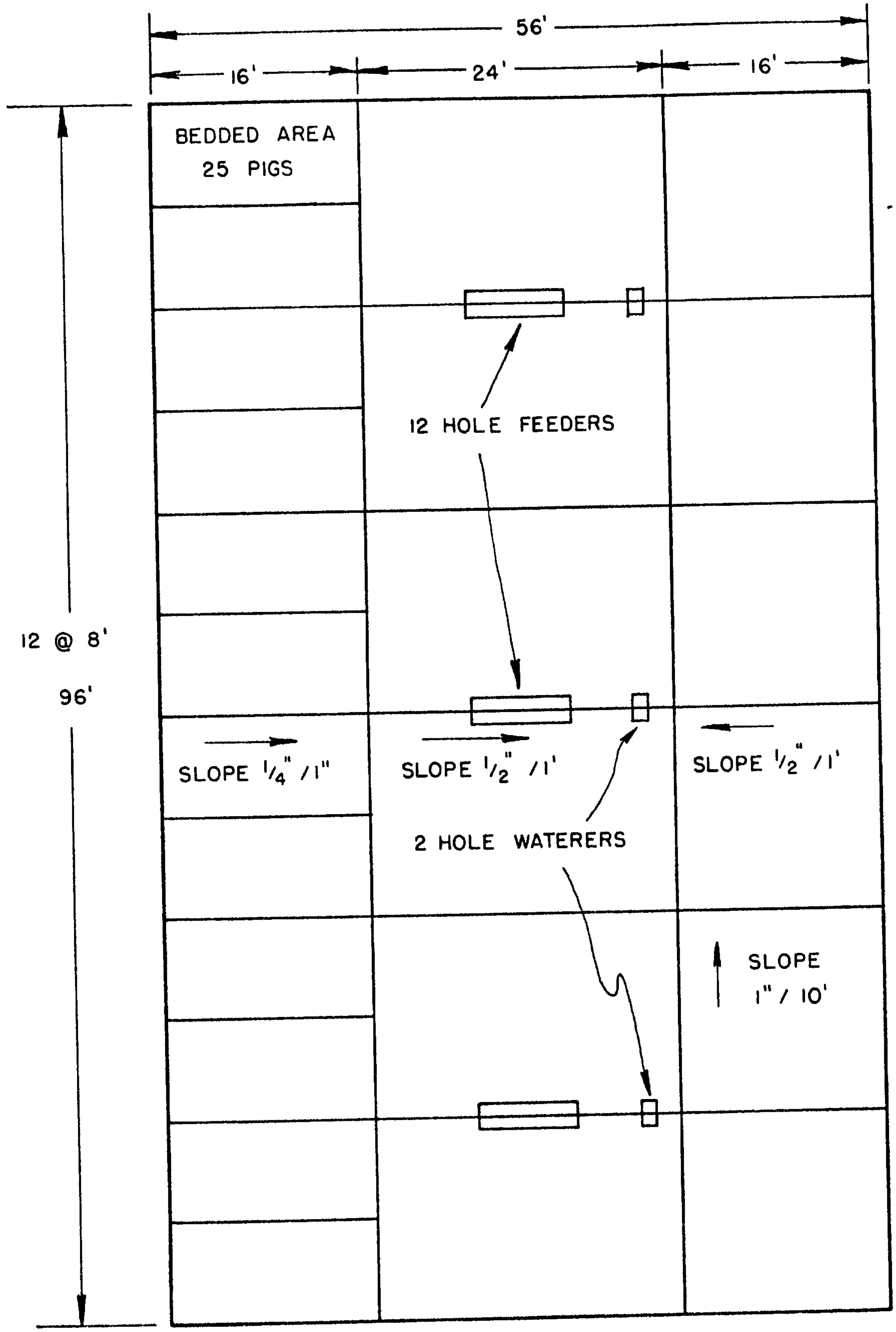
OPEN SHED WITH LOT



FINISHING FACILITY 3



FINISHING SYSTEM 3

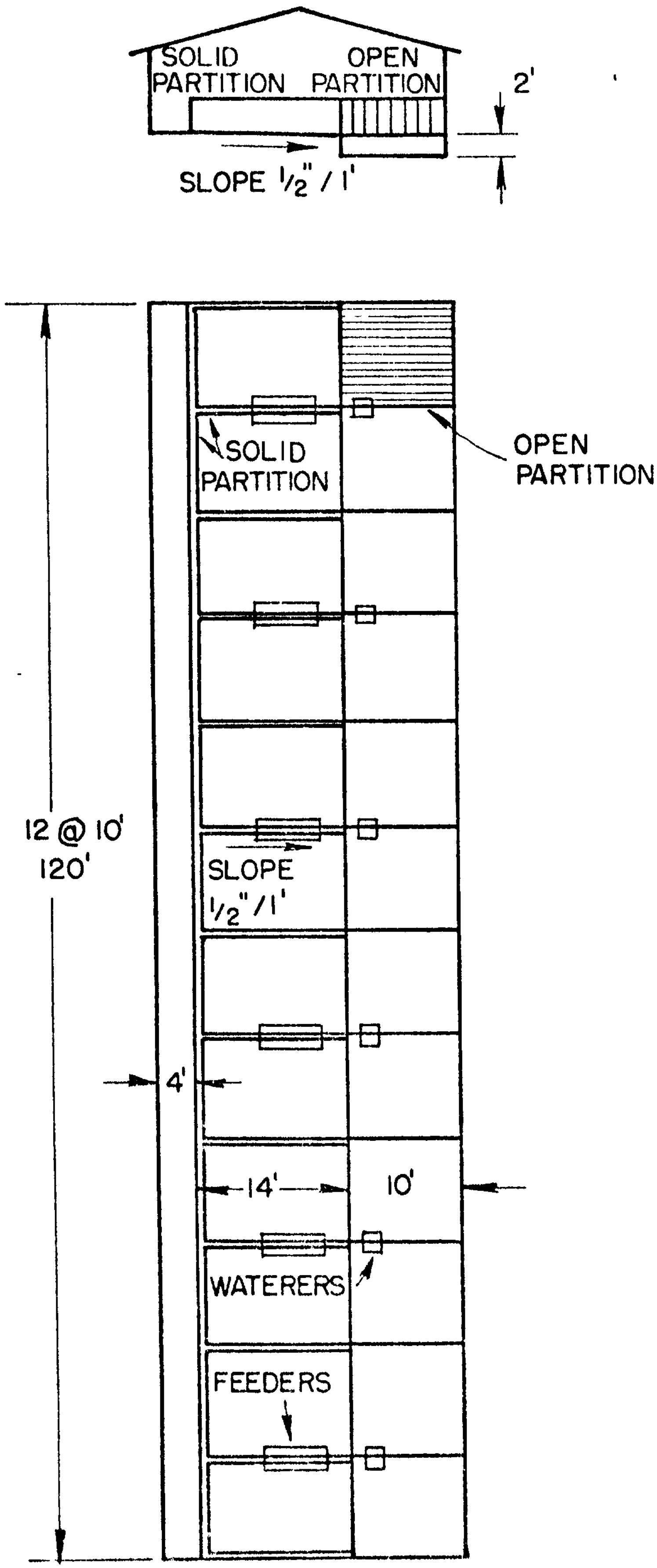


Finishing Systems 4 and 5

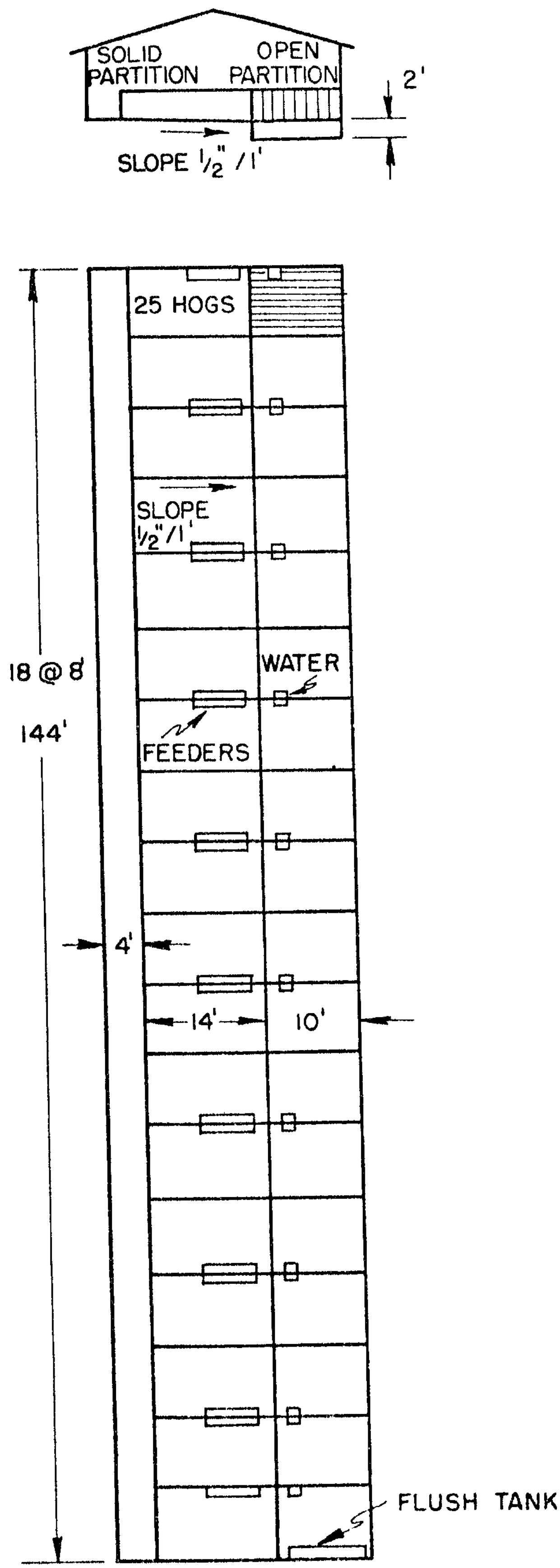
These facilities will be complete turn-key buildings. The cost to install water lines and electrical service is the same as in Farrowing System 8. Each building will be quipped with an automatic auger feed system.

Lagoon Design - see page
Irrigation System - see page

FINISHING SYSTEM 4



FINISHING SYSTEM 5



Remodeling Costs

walls:	insulation R-11	$\$20/135\ ft^2 \approx \$.15/ft^2$	
	vapor barrier	$\$16.00/800\ ft^2 \approx \$.02/ft^2$	
	3/4" plywood	$\$23.00/32\ ft^2 \approx \$.72/ft^2$	
		$\boxed{\$.89/ft^2}$	
ceiling:	insulation R-20	$\$8.00/30\ ft^2 \approx \$.27/ft^2$	
	vapor barrier	$\$16.00/800\ ft^2 \approx \$.02/ft^2$	
	1/2" plywood	$\$17.00/32\ ft^2 \approx \$.53/ft^2$	
		$\boxed{\$.82/ft^2}$	
floor:	concrete	2" slab	$\$39.00/162\ ft^2 \approx \$.24/ft^2$
		4" slab	$\$39.00/81\ ft^2 \approx \$.48/ft^2$
		5" slab	$\$39.00/64.8\ ft^2 \approx \$.60/ft^2$
		6" slab	$\$39.00/54\ ft^2 \approx \$.72/ft^2$

reinforcing costs $\$.50/5\ ft^2 = \$.10/ft^2$

Labor Estimates
for Construction and Remodeling

A-frames	3 man-hrs/hut
Wooden crates	6 man-hrs/crate
Wooden feeders	3 man-hrs/feeder

Farrowing Facilities:

System	Number of Man-Days (1 Man Day = 8 Hrs)
2	2
3	6
4	4
5	8
6	16
7	35 (25 - construction, 2 - concrete, 8 - insul, plumb, elec.)

Gestation Facilities:

System	Number of Man-Days
1	14 (8 - construction, 6 - fence)
2	11 (2 - plywood, 2 - partitions, 4 - concrete, 3 - fence)
3	27 (15 - construction, 6 - concrete 2 - fence)
4	40
5	50

Finishing Facilities:

System	Number of Man-Days
1	7 (3 - construction, 4 - fence)
2	9 (1 - plywood, 3 - partitions, 4 - concrete, 1 - plumb)
3	60

Miscellaneous Equipment

Loading Chute (wooden, homemade) = $300

Sorting Chute (wooden, homemade) = $145

Standby Generator $9,920 (30 kW, 225 Amp) $10,520 (45 kW, 225 Amp)

High Pressure Sprayer $1200-$2200

Scales $625

Incinerator

Pregnancy Tester $395

Alarm System $270-$640

Liquid Manure Spreader (2000 gallon) $6500

Agitator Pump (8' deep) $3500

Solid Manure Spreader (150 bu) $2500

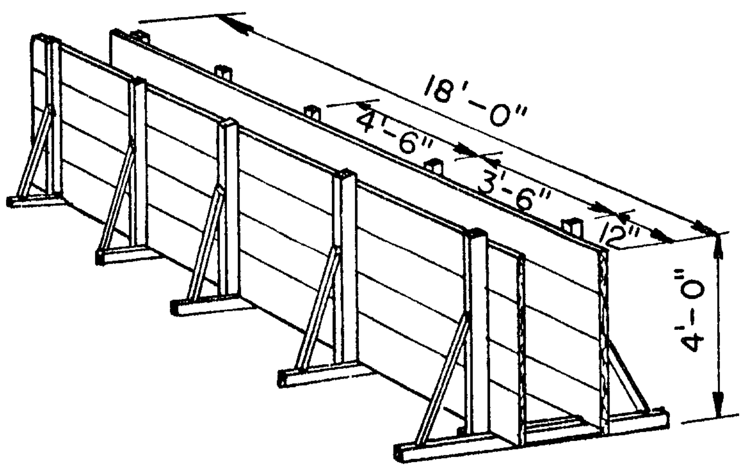
Used Spreader $250

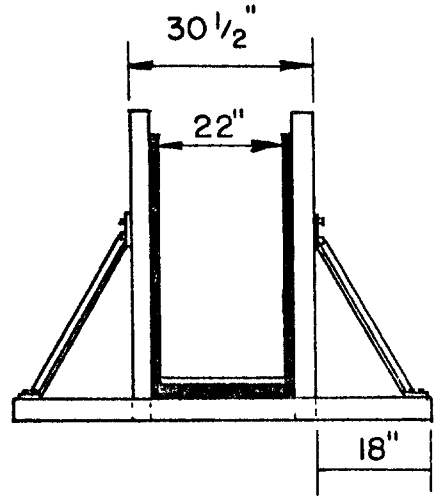
New Loader $5000-$10,000

Used Loader $1000

Wooden Feeder $50-85

LOADING CHUTE

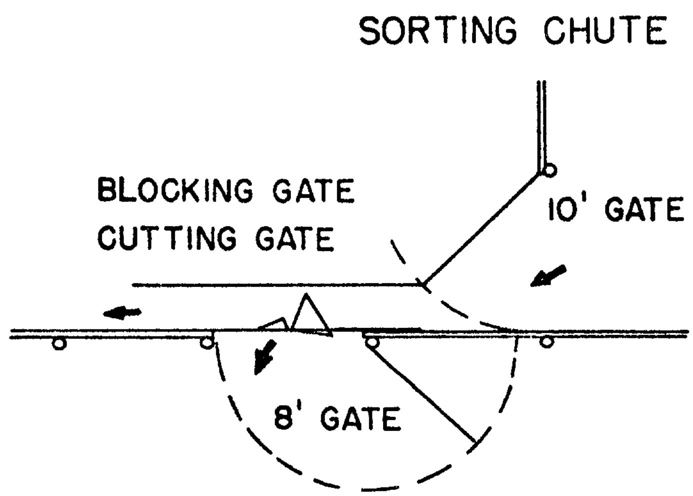




List of Materials - Loading Chute (MWPS-8)

Item	No.	Description
A	4	2 x 6 x 18'
B	5	2 x 4 x 31-1/2"
	5	2 x 4 x 5'-4"
C	10	2 x 4 x 4'
D	4	1 x 12 x 18'
E	4	1 x 10 x 18'
F	19	1 x 2 x 22"
G	12	3/8" x 5-1/2" bolt
H	10	1/2" x 5-1/2" bolt
I	10	1/2" x 5-1/2" bolt
J	10	1" x 1" x 36" angle iron

Cost = $300

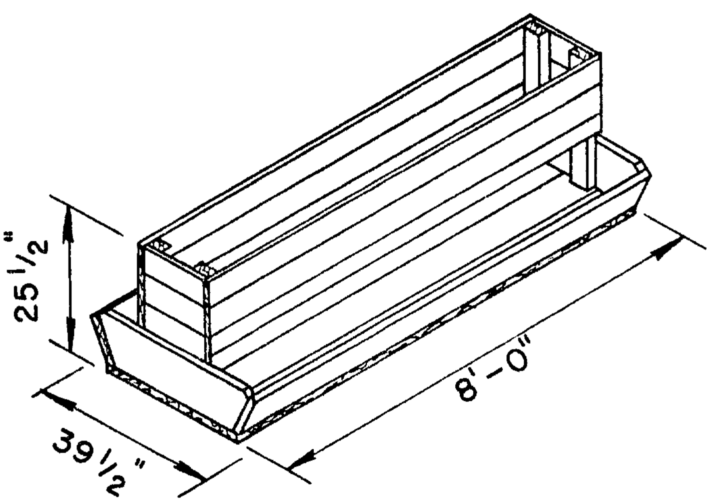

SORTING CHUTE
BLOCKING GATE
CUTTING GATE
10' GATE
8' GATE

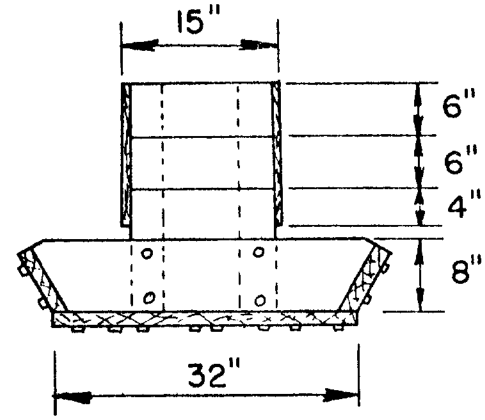
List of Materials - Sorting Chute (MWPS-8)

Item	Description	No.
Blocking Gate	2" x 4" x 6'	2
Cutting Gate	1" x 4" x 10'	1
Stationary Lane	4" x 4" x 6' posts	11
	2" x 4" x 10'	2
Plywood	3/8" x 4' x 8' c-c, ext.	4 sheets

Total Cost = $145

FEEDER





A

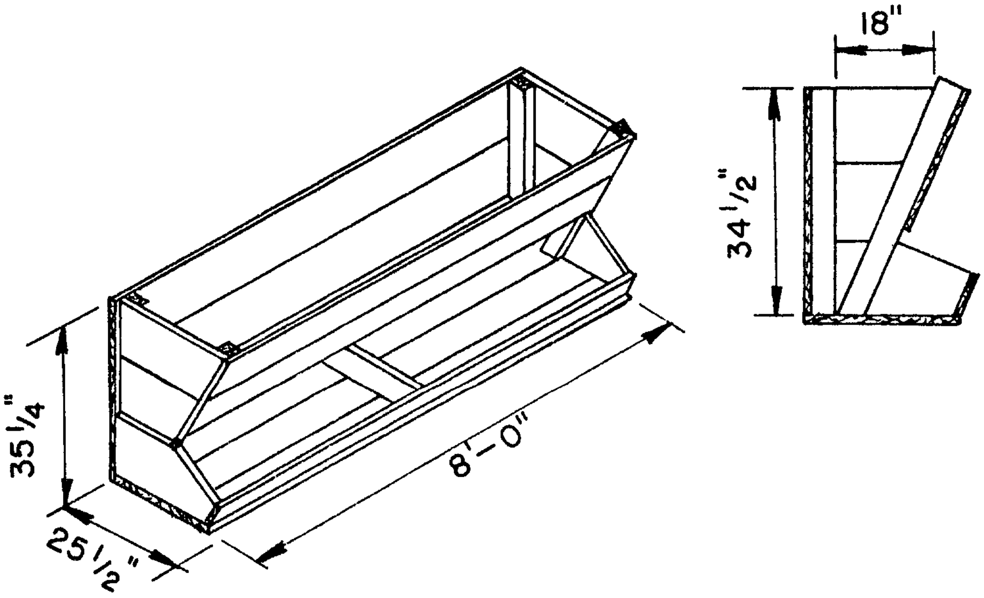
List of Materials - Feeder A (MWPS-8) - 22 bushel capacity

Item	No.	Description
A	2	2 x 8 x 3'
B	6	2 x 8 x 8'
C	4	2 x 4 x 2'
D	4	2 x 6 x 8'
E	6	2 x 6 x 15"
F	2	2 x 6 x 8'
G	8	1/2" x 4" bolts
H	24	3/8" x 3" lag screws

All Lumber Pressure-Treated

Cost = $55

FEEDER



B

List of Materials - Feeder B (MWPS-8) - 17 bushel capacity

Item	No.	Description
A	4	2 x 8 x 8'
B	5	2 x 12 x 7'-10"
C	1	2 x 6 x 2'
D	2	2 x 4 x 34-1/2"
E	2	2 x 4 x 3'-3"
F	2	2 x 12 x 2'
G	2	2 x 12 x 22 1/2"
H	2	2 x 12 x 17 1/2"

All Lumber Pressure-Treated

Cost = $83

LAGOON DESIGN

Minimum design volume: from MWPS-18 Table 30, p. 58

For cold climate 2 ft^3/lb

From manure production for System I:

For farrowing and nusery	10,418 lbs/yr
For gestation	42,916 lbs/yr
For finishing	83,165 lbs/yr
Total feeder pig production	53,334 lbs/yr
Total farrow-to-finish	136,499 lbs/yr

A. Lagoon Design for Feeder Pig Production

*Minimum design volume: (2 ft^3/lb)(53,334 lb/yr) = 106,668 ft^3/yr
(lagoon is never pumped lower than this point)

*Pumping schedule: once a year

*Livestock wastes: from manure production for system I, volume = 13,837 ft^3/yr

*Dilution volume: Annual precipitation = 28 inches

Annual evaporation = 28 inches

Dilution volume = 1/2 the minimum design volume

= (1/2)(106,668) = 53,334 ft^3

*Safety margin: 25 yr, 24 hr storm, 4.5 in/day Figure 54
assume diversion dikes prevent extraneous runoff from entering lagoon

*12" freeboard

Total volume required = 173,839 ft^3/yr + safety margin

13 ft deep lagoon, 156' square with side slope of 3:1 has a volume of 184,548 ft^3.

Safety margin = 9126 ft^3

Total volume required = 182,965 ft^3

Still need a 12" freeboard, therefore, make lagoon 14' deep, 156' square

Cost for excavation = \$.037/ft^3 = \$1.00/yd

Cost of lagoon = (190,176 ft^3)(\$.037/ft^3) = \$7,036

B. Lagoon Design for Farrow-to-Finish Operation

*Minimum design volume: $(2\ ft^3)(136{,}499\ lb/yr) = 272{,}998\ ft^3/yr$
(lagoon is never pumped below this point)

*Pumping schedule: once a year

*Livestock wastes: volume = $13{,}837 + 33{,}927 = 47{,}764\ ft^3$

*Dilution volume: = (1/2)(minimum design volume)
= (1/2)(272,998) = 136,499 lb/yr

*Safety margin: 25 yr, 24 hr storm, 4.5 in/day

*12" freeboard

Total volume = $457{,}261\ ft^3$ + safety margin

13 ft deep lagoon, 230' square, volume = $480{,}844\ ft^3$

Total volume required = $477{,}099\ ft^3$

Still need 12" freeboard, therefore, make lagoon 14' deep, 230' square

Cost for excavation = $\$.037/ft^3 = \$1.00/yd$

Cost of lagoon = $18,613

IRRIGATION SYSTEM COSTS

For a Large System:	pump (600 gpm)	$ 4772
	traveling gun	9500
		$14,272
For a Small System:	pump (400 gpm)	$ 3200
	traveling gun	7500
		$10,700
Average Cost		$12,500
6" irrigation pipe	$2.15/ft	
assume 2500 ft @ $2.15/ft		$ 5375
TOTAL		$17,875

Custom pumping $3.00/1000 gallons pumped

cost to pump feeder pig system lagoon =	$ 1716
cost to pump farrow to finish system lagoon	$ 4592

APPENDIX B

Energy Requirements and Calculations

Table 60. Energy Requirements of Electrical Equipment[1]

Equipment	Capacity hp or Watts	Estimated kW-hr/month*
Lighting, small home	1600 Watts varies widely	75-125
Lighting, large home	4,000 Watts	150-250
Water pump (deep)	1/3-1 hp	10-60
Water pump (shallow)	1/4 hp	5-20
Barn cleaner	2-5 hp	25-40
Brooder (hogs)	250 Watts	1 per 4 hrs
Feed grinder (grinder blender)	2 - 7-1/2 hp	3-7 per ton
Feed Mixer	1 - 7-1/2 hp	1 per ton
Stock tank heater	250-1500 Watts	90-500
Ventilation fans (hogs) (winter)	1/8-1/2 hp	7-10 per month per 1000 lb. animal weight
Ventilation fans (hogs) (summer)	1/8-1/2 hp	14-20 per month per 1000 lb. animal weight
Heater, portable	1000-3000 Watts	1-3 per hour
Small motors	1/2-5 hp	1 per hp per hour

*unless otherwise specified

[1] D.W. Baltes, H.A. Cloud. Energy Requirements of Electrical Equipment. Agricultural Engineering Fact Sheet No. 1. University of Minnesota.

<u>Energy Requirements</u> - Monthly Basis [These values are valid for every system except for farrowing system 10]

<u>Derivation of Heat Balance Equations</u>

Basic Equation: $q_{sen} + q_{sup} = 1.1\ \text{CFM}\ \Delta T + q_B$ (1)

where: q_B = building heat loss [Btu/hr]

q_{sen} = sensible heat from the animals [Btu/hr]

q_{sup} = supplemental heat [Btu/hr]

CFM = ventilation rate [cubic feet per min]

Assumptions: 16 sow farrowing building 36' x 38' x 8', kept at 70° F
128 piglet nursery 36' x 22' x 8', kept at 80° F

Both buildings will be operated independently and kept at 40° F to prevent freezing when not in use.

A. Farrowing building full

q_{sen} = (1000 Btu/hr/sow and litter)(16 sows and litter)

= 16,000 Btu/hr

minimum ventilation rate = (20 CFM/sow)(16 sows) = 320 CFM

$q_B = A_B/R_B\ (T_n - T_o)$

where: A_B = area of building

R_B = R-value of building

T_n = room temperature

T_o = outside temperature

$$\frac{A_B}{R_B} = \frac{A_{walls}}{R_{walls}} + \frac{A_{ceiling}}{R_{ceiling}}$$

$$= \frac{1184\ \text{ft}^2}{13\ \text{Btu/hr-ft}^2\text{-°F}} + \frac{1368\ \text{ft}^2}{23\ \text{Btu/hr-ft}^2\text{-°F}} = 151\ \text{Btu/hr-°F}$$

T_n = 70° F

Equations 1 becomes: $16{,}000 + q_{sup} = (1.1)(320)(70 - T_o) + 151(70 - T_o)$

therefore: $q_{sup} = 503(70 - T_o) - 16{,}000$ (A)

This is the equation used to determine the amount of supplemental heat required in the farrowing house when full of sows.

B. Farrowing building empty

$$q_{sen} = 0$$
$$T_n = 40$$

therefore equation 1 becomes:

$$q_{sup} = 151(40 - T_o) \qquad \text{(B)}$$

This is the equation used to determine the amount of supplemental heat required in the farrowing house when empty.

C. Nursery building full

$$q_{sen} = (80 \text{ Btu/pig})(128 \text{ pigs}) = 10{,}240 \text{ Btu/hr}$$

$$\text{minimum ventilation rate} = (2.5 \text{ CFM/pig})(128 \text{ pigs}) = 320 \text{ CFM}$$

$$\frac{A_B}{R_B} = \frac{(36' + 22')(2)(8')}{13} + \frac{36' \times 22'}{23} = 106 \text{ Btu/hr-°F}$$

$$T_n = 80° \text{ F}$$

Equation 1 becomes: $10{,}240 + q_{sup} = (1.1)(320)(80 - T_o) + 106(80 - T_o)$

therefore: $q_{sup} = 458(80 - T_o) - 10{,}240$ (C)

D. Nursery building empty

$$q_{sen} = 0$$
$$T_n = 40$$

therefore equation 1 becomes:

$$q_{sup} = 106(40 - T_o) \qquad \text{(D)}$$

Sample Calculations:

From original "cumulative percentage frequency of occurrence", Table I, subtract cumulative frequencies to get a frequency of occurrence at an average temperature between two cumulative frequency temperatures. This has been done and recorded in Table II. Table III contains values obtained by multiplying (frequency)(.01)(# days in the appropriate month). This gives the number of days in each month that a temperature occurs. In Table IV q-supplemental is obtained by substituting $q_{sup} = 503(70 - T_o) - 16,000$ when $T_o = -22.5$.

$$q_{sup} = 30,528 \text{ Btu/hr}$$

This value is then multiplied by the appropriate frequency for each month found in Table III x 24 hrs/day to obtain energy values.

These values are then summed over the month in each of the four categories to obtain the total energy requirement for each month under 4 circumstances.

Example using (A) and January at -22.5° F.

$q_{sup} = 30,528$ Btu/hr

(30,528 Btu/hr)(.155 days)(24 hrs/day) = 113,564 Btu

(q_{sup})(# of days from Table III)(24 hrs/day)

Energy Requirements for Farrowing System 10

Continuous farrowing

Assumptions: 16 sow farrowing house 36' x 38' x 8'

280 piglet nursery 24' x 48' x 8'

Both facilities will be operated independently and continuously at full capacity

Heat Balance Equations:

farrowing house: $q_{sup} = 503(70 - T_o) - 16{,}000$ (A)

nursery facility:

minimum ventilation rate = (2.5 cfm/pig)(280 pigs) = 700 cfm

$$A_B/R_B = \frac{(24 + 48)(2) \times 8}{13} + \frac{(24 \times 48)}{23} = 139 \text{ Btu/hr°F}$$

$$q_{sensible} = (80 \text{ Btu/hr/pig})(280 \text{ pigs}) = 22{,}400 \text{ Btu/hr}$$

fundamental equation: $q_{sen} + q_{sup} = q_B + q_{vent}$

$$22{,}400 + q_{sup} = 139(80 - T_o) + (1.1)(700)(80 - T_o)$$

$$q_{sup} = 839(80 - T_o) - 22{,}400 \qquad \text{(B)}$$

$$q_{sup} = 0 \text{ when } T_o \approx 53°F$$

Using weather data it is found that the total number of Btu's required = 1.3298×10^8 Btu

Table 61. Cumulative Percentage (%) Frequency of Temperature Occurrence.

Temp	Jan. 31	Feb. 28	Mar. 31	Apr. 30	May 31	June 30	July 31	Aug. 31	Sept 30	Oct. 31	Nov. 30	Dec. 31	Mean
90							.1						.0
85						1.3	2.5	2.5	.3				.5
80					.5	3.3	13.5	11.2	3.1				2.9
75				.2	3.1	20.0	41.2	32.1	7.1	.3			8.8
70				1.3	9.3	42.2	73.0	59.0	15.6	2.2			17.1
65			.2	4.4	24.2	66.2	93.4	83.7	32.4	9.3			26.4
60			.6	9.6	41.7	67.9	99.3	95.9	55.1	20.5			34.4
55			1.9	20.0	63.6	95.6	99.9	99.6	76.0	36.6	1.3		41.4
50			5.1	32.4	81.5	99.0	100.0	100.0	90.3	55.2	8.1	.4	47.7
45		.5	10.3	51.4	92.3	99.9			97.5	72.0	14.7	.9	53.5
40	.2	1.2	19.4	71.0	98.4	100.0			99.7	87.6	27.1	2.3	59.1
35	1.7	6.1	29.7	89.2	99.6				100.0	96.5	46.5	8.4	65.0
30	7.6	15.8	50.4	96.9	100.0					98.8	64.9	22.9	71.5
25	20.0	30.4	67.9	99.1						99.9	79.3	37.7	77.9
20	33.8	46.3	81.6	99.7						100.0	88.0	51.4	83.6
15	47.3	60.4	90.6	100.0							94.8	68.4	88.5
10	60.1	73.4	93.9								98.3	78.3	92.0
5	70.9	84.5	97.8								99.5	86.1	94.9
0	81.2	91.8	99.4								99.7	92.0	97.1
-5	88.8	96.7	99.6								100.0	97.2	98.5
-10	95.3	99.0	99.9									99.2	99.4
-15	98.3	99.7	100.0									99.9	99.8
-20	99.5	100.0										100.0	100.0
-25	100.0												100.0

Table 62.

% Frequency of Occurrence

Temp Outside	Jan. 31	Feb. 28	Mar. 31	Apr. 30	May 31	June 30	July 31	Aug. 31	Sept 30	Oct. 31	Nov. 30	Dec. 31
-22.5	.5											
-17.5	1.2	.3										.1
-12.5	3.0	.7	.1									.7
-7.5	6.5	2.3	.3									2.0
-2.5	7.6	4.9	.2								.3	5.2
2.5	10.3	7.3	1.6								.2	5.9
7.5	10.8	11.1	3.9								1.2	7.8
12.5	12.8	13.0	3.3								3.5	9.9
17.5	13.5	14.1	9.0	.3							6.8	17.0
22.5	13.8	15.9	13.7	.6						.1	8.7	13.7
27.5	12.4	14.6	17.5	2.2						1.1	14.4	14.8
32.5	5.9	9.7	20.7	7.7	.4					2.3	18.4	14.5
37.5	1.5	4.9	10.3	18.2	1.2				.3	8.9	19.4	6.1
42.5		.7	9.1	19.6	6.1	.1			2.2	15.6	12.4	1.4
47.5			5.2	19.0	10.8	.9			7.2	16.8	6.6	.5
52.5			3.2	12.4	17.9	3.4	.1	.4	14.3	18.6	6.8	
57.5			1.3	10.4	22.0	27.7	.7	3.7	20.9	16.1		

Table 63.

Number of days per month that each temperature occurred.*

Temp Outside	Jan. 31	Feb. 28	Mar. 31	Apr. 30	May 31	June 30	July 31	Aug. 31	Sept 30	Oct. 31	Nov. 30	Dec. 31
-22.5	.155											
-17.5	.372	.084										.031
-12.5	.93	.196	.031									.217
-7.5	2.015	.644	.093									.62
-2.5	2.356	1.372	.062								.09	1.612
2.5	3.193	2.044	.496								.06	1.829
7.5	3.348	3.108	1.209								.36	2.418
12.5	3.968	3.64	1.023								1.05	3.069
17.5	4.185	3.948	2.79	.09							2.04	5.27
22.5	4.278	4.452	4.247	.18						.031	2.61	4.247
27.5	3.844	4.088	5.425	.66						.341	4.32	4.588
32.5	1.829	2.716	6.417	2.31	.124					.713	5.52	4.495
37.5	.465	1.372	3.193	5.46	.372				.09	2.759	5.82	1.891
42.5		.196	2.821	5.88	1.891	.03			.66	4.836	3.72	.434
47.5			1.612	5.7	3.348	.27			2.16	5.208	1.98	.155
52.5			.992	3.72	5.549	1.02	.031	.124	4.29	5.766	2.04	
57.5			.403	3.12	6.82	8.31	.217	1.147	6.27	4.991		

* (Frequency)(# days/month)(.01)

Table 64. Supplemental Heat Requirements (BTU)

	January	February	March	April	May	June	July	Aug.	Sept.	October	November	December
Farrowing Full	9,529,992	6,922,075	3,748,920	346,094	11,627				752	121,921	2,518,591	6,961,453
Farrowing Empty	3,063,991	2,259,604	1,289,447	161,011	6,747				817	61,835	899,651	2,288,652
Nursery Full	15,291,805	12,249,859	9,460,140	4,002,588	1,126,208	105,218	2,076	8,738	620,766	2,649,248	7,923,179	12,903,581
Nursery Empty	2,150,621	1,585,981	904,962	112,955	4,732				572	43,375	631,358	1,606,347

APPENDIX C

Seasonal Index for Market Hogs and Feeder Pigs

Table 65. Feeder Pig Seasonal Price Index - Based on Wisconsin F.P. Coop.
Dollars/Head

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	AVERAGE FOR YEAR	STANDARD DEVIATION	COEFFICIENT OF VARIATION
1970-71	22.60	24.90	27.70	25.00	21.60	19.10	16.30	13.60	12.60	11.50	9.20	8.70	17.73	6.62	.37
1971-72	7.80	10.50	10.80	11.40	12.20	11.80	10.70	10.60	11.00	13.10	13.30	14.60	11.48	1.73	.15
1972-73	18.70	21.30	21.30	23.30	22.90	22.40	22.60	22.50	24.30	24.40	22.70	21.90	22.36	1.51	.07
1973-74	22.90	25.80	31.60	30.10	30.80	26.70	33.70	40.40	31.20	31.80	31.50	29.70	30.52	4.35	.14
1974-75	30.20	30.90	29.30	28.30	20.20	13.50	16.80	13.90	14.30	18.30	18.50	21.00	21.27	6.66	.31
1975-76	25.80	29.80	34.30	36.40	39.30	40.40	40.10	42.30	53.90	51.90	45.00	41.60	40.07	8.09	.20
1976-77	41.40	44.50	43.80	46.70	43.80	37.30	31.00	27.50	24.60	17.80	17.50	20.70	33.05	11.16	.34
1977-78	22.30	26.20	33.90	36.70	38.30	33.20	34.40	35.80	36.40	32.30	29.60	28.20	32.28	4.80	.15
1978-79	32.70	38.10	45.10	49.60	50.00	44.10	42.30	45.60	47.80	50.10	45.30	42.90	44.47	5.12	.12
AVERAGE FOR MONTH	24.95	28.00	30.87	31.94	31.01	27.61	27.54	28.02	28.46	27.91	25.84	25.48	28.14	2.21	.08
SEASONAL INDEX	93.1	105.0	113.3	116.9	112.8	99.1	99.0	97.1	96.1	93.9	86.9	86.7	100.00		

Table 66. Market Hog Seasonal Price Index - Based on Seven Major Markets
$/Cwt.

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	AVERAGE FOR YEAR	STANDARD DEVIA-TION	COEFFI-CIENT OF VARIATION
1969-70	19.77	20.41	20.69	20.38	23.14	25.16	26.05	26.91	25.94	25.53	25.77	26.93	23.89	2.82	.12
1970-71	27.40	28.25	25.97	24.05	23.53	24.04	25.13	22.12	20.35	17.91	15.69	15.67	22.51	4.27	.19
1971-72	16.25	19.43	17.13	16.19	17.43	18.38	19.84	19.05	18.91	19.80	19.39	20.98	18.57	1.51	.08
1972-73	24.84	26.61	23.56	22.89	25.32	26.74	28.57	28.70	28.75	28.18	27.61	30.43	26.85	2.30	.09
1973-74	32.54	36.23	38.13	35.56	36.35	38.55	46.64	56.68	43.79	42.12	40.97	39.79	40.61	6.37	.16
1974-75	40.59	39.73	34.88	30.52	26.09	27.40	36.31	37.67	35.79	38.90	38.34	39.93	35.51	4.93	.14
1975-76	38.93	39.61	39.52	40.69	46.44	51.19	57.17	58.10	61.23	58.52	49.74	48.33	49.12	8.26	.17
1976-77	48.40	48.85	46.71	47.89	48.89	50.80	48.26	44.00	39.39	32.66	32.05	38.05	43.83	6.62	.15
1977-78	39.52	40.18	37.53	36.97	41.79	43.86	45.76	44.38	41.40	40.83	39.33	43.99	41.30	2.78	.07
1978-79	45.99	48.83	47.50	46.04	49.17	48.31	46.78	48.77	50.00	52.23	48.36	49.57	48.46	1.77	.04
1979-80	52.13	54.42	49.38	45.04	43.79	40.29	38.73	38.21	38.62	34.73	36.01	38.45	42.48	6.48	.15
AVERAGE FOR MONTH	35.12	36.60	34.64	33.29	34.72	35.88	38.11	38.60	36.74	35.58	33.93	35.65	35.74	1.58	.04
SEASONAL INDEX	100.6	105.5	98.4	93.8	97.0	99.9	108.0	107.9	101.2	98.1	92.6	96.8	100.00		

APPENDIX D

Feeder Pig Production - Cash Flows

MONTHLY ENTERPRISE CASH FLOW

TABLE 67 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM A FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	3988.	0	3988.
GILT N. R.	1.0	0	0	0	0	0	418.	0	0	0	0	0	0	418.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	2442.	0	2442.
BOAR	1.0	0	0	0	0	0	527.	0	0	0	0	0	0	527.
TOTAL		0	0	0	0	0	944.	0	0	0	0	6430.	0	7374.
CASH EXPENSES														
CORN	1.0	0	0	0	89.	122.	80.	70.	70.	136.	405.	175.	154.	1301.
SOYBEAN MEAL	1.0	0	0	0	49.	67.	44.	39.	38.	96.	335.	117.	80.	866.
MINERALS	1.0	0	0	0	4.	5.	3.	3.	3.	7.	19.	6.	4.	54.
OATS	1.0	0	0	0	0	0	0	0	0	4.	0	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	17.	17.	0	0	34.
SUGAR	1.0	0	0	0	0	0	0	0	0	5.	0	0	0	5.
GRIND & MIX	1.0	0	0	0	5.	6.	4.	4.	4.	9.	24.	9.	6.	69.
VET & MED.	1.0	0	0	0	25.	0	0	0	25.	63.	25.	0	0	138.
ELECTRICITY	1.0	0	0	0	0	3.	0	0	0	0	0	1.	15.	19.
INS. AND TAXES	1.0	0	0	0	0	0	101.	0	0	0	0	0	0	101.
HAULING & MKTG.	1.0	0	0	0	0	0	33.	0	0	0	0	226.	0	259.
MISCL EXPENSE	1.0	0	0	0	17.	17.	17.	17.	17.	17.	17.	17.	17.	153.
GILTS	1.0	0	0	0	3700.	0	0	0	0	0	0	0	0	3700.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
GESTATION SHLTER	1.0	0	0	1502.	1502.	0	0	0	0	0	0	0	0	3004.
A-FRAME FARO-HUT	1.0	0	0	0	0	0	994.	994.	0	0	0	0	0	1988.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	300.	0	0	0	0	300.
SORTING CHUTE	1.0	0	0	0	0	0	0	0	145.	0	0	0	0	145.
FENCE	1.0	0	0	3240.	0	0	0	0	0	0	0	0	0	3240.
EQUIP-LUB&REPAIR	1.0	0	0	22.	30.	30.	34.	37.	40.	40.	40.	40.	40.	353.
TOTAL		0	0	4764.	6771.	249.	1310.	1164.	643.	394.	882.	592.	316.	17084.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE		0	0	-4764.	-6771.	-249.	-366.	-1164.	-643.	-394.	-882.	5838.	-316.	-9710.
=CURRENT CASH BALANCE		0	0	-4764.	-6771.	-249.	-366.	-1164.	-643.	-394.	-882.	5838.	-316.	
+MONEY BORROWED		0	0	4764.	6771.	249.	366.	1164.	643.	394.	882.	0	316.	
-PAYMENT ON LOAN		0	0	0	0	0	0	0	0	0	0	4867.	0	
-INTEREST PAID AT .12		0	0	0	0	0	0	0	0	0	0	971.	0	
=CASH BALANCE ENDING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1 ACCUMULATED BORROWING	0	0	4764.	11535.	11784.	12150	13314.	13957.	14351.	15232.	10365.	10680.
-0ACCRUED INTEREST-JAN 1 ACCRUED INTEREST AT .12	0	0	0	48.	163.	281.	402.	535.	675.	819.	0	104.
0 ACCRUED TOTAL DEBT-JAN 1 ACCUMULATED TOTAL DEBT	0	0	4764.	11582.	11947.	12431.	13716.	14492.	15026.	16051.	10365.	10784.

TABLE 68 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM A SECOND YEAR OF PRODUCTION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	3988.	0	3988.
GILT N. B.	1.0	0	0	0	0	0	418.	0	0	0	0	0	0	418.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	2442.	0	2442.
BOAR	1.0	0	0	0	0	0	527.	0	0	0	0	0	0	527.
TOTAL		0	0	0	0	0	944.	0	0	0	0	6430.	0	7374.
CASH EXPENSES														
CORN	1.0	209.	132.	146.	112.	122.	80.	70.	70.	136.	405.	175.	154.	1812.
SOYBEAN MEAL	1.0	73.	73.	80.	61.	67.	44.	39.	39.	96.	335.	117.	80.	1102.
MINERALS	1.0	6.	6.	6.	5.	5.	3.	3.	3.	7.	19.	6.	4.	74.
OATS	1.0	0	0	0	0	0	0	0	0	4.	0	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	17.	17.	0	0	34.
SUGAR	1.0	0	0	0	0	0	0	0	0	5.	0	0	0	5.
GRIND & MIX	1.0	10.	7.	8.	6.	6.	4.	4.	4.	9.	24.	9.	6.	95.
VET & MED.	1.0	25.	0	0	0	0	0	0	25.	63.	25.	0	0	138.
ELECTRICITY	1.0	25.	27.	26.	20.	3.	0	0	0	0	0	1.	15.	117.
INS. AND TAXES	1.0	0	0	0	0	0	101.	0	0	0	0	0	0	101.
HAULING & MKTG.	1.0	0	0	0	0	0	33.	0	0	0	0	226.	0	259.
MISCL EXPENSE	1.0	17.	17.	17.	17.	17.	17.	17.	17.	17.	17.	17.	17.	204.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	0	0	57.	0	0	0	0	0	0	0	0	57.
MACHINE(FUEL,LUB,REP)		0	0	0	3.	0	0	0	0	0	0	0	0	3.
EQUIP. (FUEL,LUB,REP)		40.	40.	40.	40.	40.	40.	40.	40.	40.	40.	40.	40.	485.
TOTAL		406.	302.	323.	1671.	260.	323.	173.	198.	394.	882.	592.	316.	5841.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-406.	-302.	-323.	-1671.	-260.	622.	-173.	-198.	-394.	-882.	5838.	-316.	1533.
=CURRENT CASH BALANCE	-406.	-302.	-323.	-1671.	-260.	622.	-173.	-198.	-394.	-882.	5838.	-316.	
+MONEY BORROWED	406.	302.	323.	1671.	260.	0	173.	198.	394.	882.	0	316.	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	0	0	0	4925.	0	
-INTEREST PAID AT .12	0	0	0	0	0	622.	0	0	0	0	913.	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

10680.00LOAN OUT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	11086.	11399.	11712	13382.	13042.	13642.	13815.	14014.	14408	15290.	10365.	10681.

104.00ACCRUED INTEREST-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCRUED INTEREST AT 12	211.	322.	436.	553.	686	201.	338	476.	616.	760.	0	104.

10784.00 ACCURED TOTAL DEBT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED TOTAL DEBT	11297.	11710.	12147.	13435.	14328	13843.	14153.	14490.	15024.	1[illegible]050.	10365.	10785

1 LITTER-10 GILTS FARROWING IN PORTABLE A-FRAME BUILDINGS. PORTABLE GESTATION FACILITIES.

TABLE 69 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM B FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	4248.	0	4248.
GILT N. B.	1.0	0	0	0	0	0	418.	0	0	0	0	0	0	418.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	488.	0	0	488.
TOTAL		0	0	0	0	0	418.	0	0	0	488.	4248.	0	5154.
CASH EXPENSES														
CORN	1.0	0	0	0	36.	117.	115.	94.	94.	159.	376.	229.	206.	1426.
SOYBEAN MEAL	1.0	0	0	0	19.	64.	62.	52.	52.	107.	303.	144.	112.	915.
MINERALS	1.0	0	0	0	2.	5.	5.	4.	4.	8.	17.	10.	8.	62.
OATS	1.0	0	0	0	0	0	0	0	0	4.	0	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	17.	11.	0	0	28.
SUGAR	1.0	0	0	0	0	0	0	0	0	5.	0	0	0	5.
GRIND & MIX	1.0	0	0	0	2.	6.	6.	5.	5.	9.	21.	12.	11.	77.
VET & MED.	1.0	0	0	0	25.	0	0	0	25.	63.	25.	0	0	138.
ELECTRICITY	1.0	0	0	0	20.	3.	0	0	0	0	0	1.	15.	39.
INS. AND TAXES	1.0	0	0	0	0	0	0	143.	0	0	0	0	0	143.
HAULING & MKTG.	1.0	0	0	0	0	0	13.	0	0	0	17.	143.	0	173.
MISCL EXPENSE	1.0	0	0	0	17.	17.	17.	17.	17.	17.	17.	17.	17.	153.
GILTS	1.0	0	0	0	3700.	0	0	0	0	0	1110.	0	0	4810.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
GESTATION SHLTER	1.0	0	0	1502.	1502.	0	0	0	0	0	0	0	0	3004.
A+FRAME FARO-HUT	1.0	0	0	0	0	0	994.	994.	0	0	0	0	0	1988.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	300.	0	0	0	0	300.
SORTING CHUTE	1.0	0	0	0	0	0	0	0	145.	0	0	0	0	145.
NURSERY	1.0	0	0	0	0	0	0	786.	786.	0	0	0	0	1572.
FENCE	1.0	0	0	3240.	0	0	0	0	0	0	0	0	0	3240.
EQUIP-LUB&REPAIR	1.0	0	0	13.	24.	24.	28.	36.	48.	48.	48.	48.	48.	365.
TOTAL		0	0	4755.	6696.	236.	1240.	2131.	1476.	436.	1946.	604.	417.	19935.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	-4755.	-6696.	-236.	-822.	-2131.	-1476.	-436.	-1457.	3645.	-417.	-14781.
=CURRENT CASH BALANCE	0	0	-4755.	-6696.	-236.	-822.	-2131.	-1476.	-436.	-1457.	3645.	-417.	
+MONEY BORROWED	0	0	4755.	6696.	236.	822.	2131.	1476.	436.	1457.	0	417.	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	0	0	0	2588.	0	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	0	0	0	1057.	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1 ACCUMULATED BORROWING	0	0	4755.	11451.	11687.	12509.	14640.	16116.	16552.	18009.	15422.	15834.
-0ACCRUED INTEREST-JAN 1 ACCRUED INTEREST AT .12	0	0	0	48.	162.	279.	404.	550.	712.	877.	0	154.
0 ACCURED TOTAL DEBT-JAN 1 ACCUMULATED TOTAL DEBT	0	0	4755.	11498.	11849.	12789.	15044.	16667.	17264.	18886.	15422.	15993.

TABLE 70 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM B SECOND YEAR OF PRODUCTION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	0	0	5978.	0	0	0	0	0	0	0	5978.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	4595.	0	4595.
GILT N. B.	1.0	139.	0	0	0	0	139.	0	0	0	0	0	0	278.
SOW N. B.	1.0	162.	0	0	0	0	162.	0	0	0	0	0	0	324.
SOW CULL	1.0	0	0	0	0	488.	0	0	0	0	488.	0	0	977.
BOAR	1.0	527.	0	0	0	0	0	0	0	0	0	0	0	527.
TOTAL		828.	0	0	0	6467.	301.	0	0	0	488.	4595.	0	12679.
CASH EXPENSES														
CORN	1.0	194.	146.	166.	233.	389.	135.	137.	141.	182.	418.	240.	205.	2584.
SOYBEAN MEAL	1.0	94.	80.	94.	171.	310.	75.	67.	71.	120.	334.	154.	112.	1682.
MINERALS	1.0	8.	6.	7.	11.	18.	5.	5.	6.	9.	19.	10.	8.	112.
OATS	1.0	0	0	1.	4.	0	0	0	0	4.	0.	0	0	9.
WHEAT BRAN	1.0	0	0	3.	19.	6.	0	0	0	16.	12.	0	0	56.
SUGAR	1.0	0	0	1.	4.	0	0	0	0	5.	0.	0	0	11.
GRIND & MIX	1.0	10.	8.	9.	13.	22.	7.	7.	7.	10.	18.	13.	11.	135.
VET & MED.	1.0	25.	0	25.	63.	25.	0	0	25.	63.	25.	0	0	251.
ELECTRICITY	1.0	25.	27.	26.	20.	3.	0	0	0	0	0	1.	15.	117.
INS. AND TAXES	1.0	0	0	0	0	0	0	190.	0	0	0	0	0	190.
HAULING & MKTG.	1.0	30.	0	0	0	159.	26.	0	0	0	16.	159.	0	390.
MISCL EXPENSE	1.0	17.	17.	17.	17.	17.	17.	17.	17.	17.	17.	17.	17.	204.
YOUNG BOAR	1.0	0	0	0	0	0	0	0	0	0	0	0	1350.	1350.
TRACTOR(FUEL,LUB,REP)		0	0	0	57.	0	0	0	0	0	0	0	0	57.
MACHINE(FUEL,LUB,REP)		0	0	0	3.	0	0	0	0	0	0	0	0	3.
EQUIP. (FUEL,LUB,REP)		48.	48.	48.	48.	48.	48.	48.	48.	48.	48.	48.	48.	575.
TOTAL		451.	332.	396.	663.	996.	314.	471.	314.	475.	907.	642.	1766.	7726.

FLOW OF FUNDS SUMMARY — DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	377.	-332.	-396.	-663.	5471.	-13.	-471.	-314.	-475.	-419.	3953.	-1766.	4953.
=CURRENT CASH BALANCE	377.	-332.	-396.	-663.	5471.	-13.	-471.	-314.	-475.	-419.	3953.	-1766.	
+MONEY BORROWED	0	332.	396.	663.	0	13.	471.	314.	475.	419.	0	1766.	
-PAYMENT ON LOAN	65.	0	0	0	4816.	0	0	0	0	0	3170.	0	
-INTEREST PAID AT .12	312.	0	0	0	655.	0	0	0	0	0	783.	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

15828.00LOAN OUT-JAN 1

154.00ACCRUED INTEREST-JAN 1

15982.00 ACCURED TOTAL DEBT-JAN 1

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	15763.	16095.	16491.	17154.	12333.	12351.	12822.	13137.	13611.	14030.	10860.	12625.
ACCRUED INTEREST AT .12	0	158.	319.	483.	0	123	247.	375.	506.	643.	0	109.
ACCUMULATED TOTAL DEBT	15763.	16253.	16810.	17633.	12333.	12475.	13069.	13512.	14118.	14673.	10860.	12734.

2 LITTER-16 SOWS FARROWING IN PORTABLE A-FRAME BUILDINGS.
PORTABLE NURSERY AND GESTATION FACILITIES.

TABLE 71 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM C FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	4118.	0	4118.
GILT N. B.	1.0	0	0	0	0	0	418.	0	0	0	0	0	139.	557.
SOW N. B.	1.0	0	0	0	0	0	0	0	0	0	0	0	162.	162.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	488.	0	488.
TOTAL		0	0	0	0	0	418.	0	0	0	0	4607.	301.	5325.
CASH EXPENSES														
CORN	1.0	0	0	0	104.	163.	118.	120.	120.	157.	394.	248.	191.	1613.
SOYBEAN MEAL	1.0	0	0	0	57.	88.	64.	65.	65.	104.	309.	158.	104.	1015.
MINERALS	1.0	0	0	0	4.	7.	5.	5.	5.	7.	18.	10.	8.	70.
OATS	1.0	0	0	0	0	0	0	0	0	4.	0.	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	16.	12.	0	0	28.
SUGAR	1.0	0	0	0	0	0	0	0	0	4.	0.	0	0	5.
GRIND & MIX	1.0	0	0	0	5.	9.	6.	6.	6.	9.	23.	14.	10.	88.
VET & MED.	1.0	0	0	0	25.	0	0	0	25.	63.	25.	0	0	138.
ELECTRICITY	1.0	0	0	0	0	15.	15.	15.	15.	15.	87.	87.	15.	261.
INS. AND TAXES	1.0	0	0	0	0	0	0	124.	0	0	0	0	0	124.
HAULING & MKTG.	1.0	0	0	0	0	0	11.	0	0	0	0	145.	0	156.
MISCL EXPENSE	1.0	0	0	0	19.	19.	19.	19.	19.	19.	19.	19.	19.	171.
GILTS	1.0	0	0	0	3700.	0	0	0	0	0	1110.	0	0	4810.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
GESTATION-REMODL	1.0	0	0	1853.	1853.	0	0	0	0	0	0	0	0	3706.
FARROW-REMODEL	1.0	0	0	0	0	3190.	0	0	0	0	0	0	0	3190.
FARROW CRATES	1.0	0	0	0	0	0	1690.	0	0	0	0	0	0	1690.
LOADING CHUTE	1.0	0	0	0	0	0	0	300.	0	0	0	0	0	300.
SORTING CHUTE	1.0	0	0	0	0	0	0	145.	0	0	0	0	0	145.
EQUIP-LUB&REPAIR	1.0	0	0	7.	14.	27.	33.	35.	35.	35.	35.	35.	35.	291.
MANURE SPREADER	1.0	0	0	0	0	0	0	0	0	2000.	0	0	0	2000.
USED SKID LOADR	1.0	0	0	0	0	0	0	0	0	3500.	0	0	0	3500.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	0	0	0	81.	0	0	163.	244.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	0	0	0	3.	0	0	5.	8.
TOTAL		0	0	1860.	7131.	3517.	1960.	834.	290.	6018.	2032.	715.	550.	24906.
FLOW OF FUNDS SUMMARY						DOLLARS								
CASH BALANCE BEGINING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE		0	0	-1860.	-7131.	-3517.	-1543.	-834.	-290.	-6018.	-2032.	3892.	-248.	-19581.
=CURRENT CASH BALANCE		0	0	-1860.	-7131.	-3517.	-1543.	-834.	-290.	-6018.	-2032.	3892.	-248.	
+MONEY BORROWED		0	0	1860.	7131.	3517.	1543.	834.	290.	6018.	2032.	0	249.	
-PAYMENT ON LOAN		0	0	0	0	0	0	0	0	0	0	2773.	0	
-INTEREST PAID AT .12		0	0	0	0	0	0	0	0	0	0	1119.	0	
=CASH BALANCE ENDING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
CURRENT LOAN SUMMARY						DOLLARS								
-0LOAN OUT-JAN 1 ACCUMULATED BORROWING		0	0	1860.	8991.	12508.	14051.	14885.	15175.	21193.	23225.	20451.	20700.	
-0ACCRUED INTEREST-JAN 1 ACCRUED INTEREST AT .12		0	0	0	19.	109.	234.	374.	523.	675.	887.	0	205.	
0 ACCURED TOTAL DEBT-JAN 1 ACCUMULATED TOTAL DEBT		0	0	1860.	9010.	12617.	14285.	15259.	15698.	21868.	24111.	20451.	20904.	

TABLE 72 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM C SECOND YEAR OF PRODUCTION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	0	0	5978.	0	0	0	0	0	0	0	5978.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	4595.	0	4595.
GILT N. B.	1.0	0	0	0	0	0	139.	0	0	0	0	0	139.	278.
SOW N. B.	1.0	0	0	0	0	0	162.	0	0	0	0	0	162.	324.
SOW CULL	1.0	0	0	0	0	488.	0	0	0	0	0	488.	0	977.
BOAR	1.0	0	527.	0	0	0	0	0	0	0	0	0	0	527.
TOTAL		0	527.	0	0	6467.	301.	0	0	0	0	5083.	301.	12679.
CASH EXPENSES														
CORN	1.0	209.	168.	184.	408.	240.	152.	176.	156.	191.	417.	260.	191.	2752.
SOYBEAN MEAL	1.0	102.	91.	119.	320.	162.	84.	84.	86.	123.	328.	171.	104.	1775.
MINERALS	1.0	8.	7.	9.	19.	10.	6.	7.	7.	9.	19.	11.	8.	119.
OATS	1.0	0	0	4.	0.	0	0	0	0	4.	0.	0	0	9.
WHEAT BRAN	1.0	0	0	15.	13.	0	0	0	0	15.	13.	0	0	56.
SUGAR	1.0	0	0	5.	1.	0	0	0	0	5.	1.	0	0	11.
GRIND & MIX	1.0	11.	9.	11.	23.	12.	9.	9.	8.	11.	24.	14.	10.	150.
VET & MED.	1.0	0	25.	63.	25.	0	0	0	25.	63.	25.	0	25.	251.
ELECTRICITY	1.0	15.	15.	15.	87.	87.	15.	15.	15.	15.	87.	87.	15.	464.
INS. AND TAXES	1.0	0	0	0	0	0	0	165.	0	0	0	0	0	165.
HAULING & MKTG.	1.0	0	18.	0	0	160.	9.	0	0	0	0	160.	9.	355.
MISCL EXPENSE	1.0	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	228.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	0	163.	0	0	163.	0	0	163.	0	0	163.	651.
MACHINE(FUEL,LUB,REP)		0	0	5.	0	0	5.	0	0	5.	0	0	5.	21.
EQUIP. (FUEL,LUB,REP)		35.	35.	35.	35.	35.	35.	35.	35.	35.	35.	35.	35.	418.
TOTAL		398.	386.	646.	2300.	725.	495.	510.	350.	658.	967.	757.	583.	8774.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE		-398.	140.	-646.	-2300.	5742.	-194.	-510.	-350.	-658.	-967.	4326.	-281.	3906.
=CURRENT CASH BALANCE		-398.	140.	-646.	-2300.	5742.	-194.	-510.	-350.	-658.	-967.	4326.	-281.	
+MONEY BORROWED		398.	0	646.	2300.	0	194.	510.	350.	658.	967.	0	281.	
-PAYMENT ON LOAN		0	0	0	0	4590.	0	0	0	0	0	3096.	0	
-INTEREST PAID AT .12		0	140.	0	0	1152.	0	0	0	0	0	1231.	0	
=CASH BALANCE ENDING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

20700.00LOAN OUT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	21098.	21098.	21743.	24044.	19458.	19648.	20157.	20507.	21165.	22131.	19036.	19317.

205.00ACCRUED INTEREST-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCRUED INTEREST AT .12	412.	483.	694.	911.	0	195.	391.	593.	798.	1009.	0	190.

20905.00 ACCURED TOTAL DEBT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED TOTAL DEBT	21519.	21581.	22437.	24955.	19458.	19842.	20548.	21100.	21962.	23141.	19036.	19507.

2 LITTER-16 SOWS A REMODELED UNINSULATED BUILDING FOR FARROWING AND NURSERY. OPEN FRONT REMODELED SHED USED FOR GESTATION.

TABLE 73 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM D FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	0	4248.	4248.
SOW N. B.	1.0	0	0	0	0	0	0	0	0	0	0	0	162.	162.
GILT N. B.	1.0	0	0	0	0	0	0	418.	0	418.	0	0	139.	974.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	0	488.	488.
TOTAL		0	0	0	0	0	0	418.	0	418.	0	0	5039.	5873.
CASH EXPENSES														
CORN	1.0	0	0	0	0	123.	152.	120.	234.	241.	273.	539.	360.	2041.
SOYBEAN MEAL	1.0	0	0	0	0	67.	84.	65.	125.	132.	174.	392.	215.	1253.
MINERALS	1.0	0	0	0	0	5.	7.	5.	10.	10.	13.	24.	15.	89.
OATS	1.0	0	0	0	0	0	0	0	0	0	4.	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	0	18.	11.	0	29.
SUGAR	1.0	0	0	0	0	0	0	0	0	0	5.	0	0	5.
GRIND & MIX	1.0	0	0	0	0	6.	8.	6.	12.	13.	16.	30.	19.	111.
VET & MED.	1.0	0	0	0	0	30.	30.	30.	30.	30.	51.	30.	30.	261.
INS. AND TAXES	1.0	0	0	0	0	0	0	220.	0	0	0	0	0	220.
HAULING & MKTG.	1.0	0	0	0	0	0	0	11.	0	11.	0	0	153.	176.
LP GAS	1.0	0	0	0	0	0	0	0	0	0	0	53.	153.	205.
ELECTRICITY	1.0	0	0	0	0.	0.	15.	15.	15.	15.	15.	186.	15.	276.
MISCL EXPENSE	1.0	0	0	0	0	21.	21.	21.	21.	21.	21.	21.	21.	168.
GILTS	1.0	0	0	0	0	3700.	0	0	3700.	0	1110.	0	0	8510.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
GESTATION SHED	1.0	0	0	0	4833.	0	4833.	0	0	0	0	0	0	9666.
REMODEL BUILDING	1.0	0	0	0	0	0	0	4500.	4500.	0	0	0	0	9000.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	0	300.	0	0	0	300.
SORTING CHUTE	1.0	0	0	0	0	0	0	0	0	145.	0	0	0	145.
EQUIP-LUB&REPAIR	1.0	0	0	0	18.	18.	29.	42.	55.	56.	56.	56.	56.	386.
MANURE SPREADER	1.0	0	0	0	0	0	2000.	0	0	0	0	0	0	2000.
USED SKID LOADR	1.0	0	0	0	0	0	3500.	0	0	0	0	0	0	3500.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	156.	0	0	311.	0	0	311.	778.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	4.	0	0	8.	0	0	8.	21.
TOTAL		0	0	0	4851.	5320.	10839.	5036.	8702.	1293.	1755.	1340.	1356.	40494.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	0	-4851.	-5320.	-10839.	-4619.	-8702.	-876.	-1755.	-1340.	3682.	-34621.
=CURRENT CASH BALANCE	0	0	0	-4851.	-5320.	-10839.	-4619.	-8702.	-876.	-1755.	-1340.	3682.	
+MONEY BORROWED	0	0	0	4851.	5320.	10839.	4619.	8702.	876.	1755.	1340.	0	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	0	0	0	0	1617.	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	0	0	0	0	2065.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1												
ACCUMULATED BORROWING	0	0	0	4851.	10171.	21010.	25629.	34331.	35207.	36962.	38302.	36685.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	0	0	0	0	49.	150.	360.	617.	960.	1312.	1682.	0
0 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	0	0	0	4851.	10220.	21160.	25989.	34948.	36167.	38274.	39984.	36685

TABLE 74 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM D SECOND YEAR OF PRODUCTION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	5552.	0	0	0	0	0	0	0	0	0	5552.
FEEDER PIGS	1.0	0	0	0	0	0	5500.	0	0	0	0	0	0	5500.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	5334.	0	0	0	5334.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	0	4812.	4812.
SOW N. B.	1.0	0	0	162.	0	0	0	162.	0	162.	0	0	0	486.
GILT N. B.	1.0	0	0	139.	0	0	0	139.	0	139.	0	0	0	418.
SOW CULL	1.0	0	0	488.	0	0	488.	0	0	488.	0	0	488.	1954.
BOAR	1.0	0	0	0	527.	0	0	0	0	0	0	0	0	527.
TOTAL		0	0	6341.	527.	0	5988.	301.	0	6123.	0	0	5300	24581.
CASH EXPENSES														
CORN	1.0	365.	559.	404.	314.	591.	343.	348.	595.	329.	338.	630.	416.	5232.
SOYBEAN MEAL	1.0	231.	383.	239.	191.	422.	212.	215.	425.	197.	204.	441.	251.	3410.
MINERALS	1.0	16.	24.	17.	14.	26.	15.	15.	26.	14.	15.	27.	18.	226.
OATS	1.0	4.	0	0	4.	0.	0	0	0	0	5.	0	0	13.
WHEAT BRAN	1.0	20.	9.	0	17.	12.	0	18.	11.	0	17.	12.	0	115.
SUGAR	1.0	5.	0	0	5.	0.	0	6.	0	0	6.	0	0	22.
GRIND & MIX	1.0	21.	31.	22.	18.	27.	18.	20.	33.	18.	19.	35.	22.	282.
VET & MED.	1.0	51.	30.	30.	51.	30.	30.	51.	30.	30.	51.	30.	30.	444.
INS. AND TAXES	1.0	0	0	0	0	0	0	330.	0	0	0	0	0	330.
HAULING & MKTG.	1.0	0	0	153.	18.	0	166.	9.	0	175.	0	0	166.	687.
LP GAS	1.0	213.	153.	80.	14.	0	0	0	0	0	0	53.	153.	664.
ELECTRICITY	1.0	15.	186.	15.	15.	186.	15.	15.	186.	15.	15.	186.	15.	864.
MISCL EXPENSE	1.0	21.	21.	21.	21.	21.	21.	21.	21.	21.	21.	21.	21.	252.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
GILTS	1.0	0	960.	0	0	0	0	0	0	0	0	0	0	960.
TRACTOR(FUEL,LUB,REP)		0	0	311.	0	0	311.	0	0	311.	0	0	311.	1244.
MACHINE(FUEL,LUB,REP)		0	0	8.	0	0	8.	0	0	8.	0	0	8.	33.
EQUIP. (FUEL,LUB,REP)		56.	56.	56.	56.	56.	56.	56.	56.	56.	56.	56.	56.	667.
TOTAL		1016.	2410.	1356.	737.	2720.	1195.	1103.	1382.	1173.	746.	1490.	1466.	16795.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-1016.	-2410.	4985.	-211.	-2720.	4793.	-802.	-1382.	4950.	-746.	-1490.	3834.	7786.
=CURRENT CASH BALANCE	-1016.	-2410.	4985.	-211.	-2720.	4793.	-802.	-1382.	4950.	-746.	-1490	3834.	
+MONEY BORROWED	1016.	2410.	0	211.	2720.	0	802.	1382.	0	746.	1490.	0	
-PAYMENT ON LOAN	0	0	3840.	0	0	3674.	0	0	3854.	0	0	2789.	
-INTEREST PAID AT .12	0	0	1145.	0	0	1120.	0	0	1096.	0	0	1046.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

36685.00LOAN OUT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	37701.	40111	36271.	36482	39202.	35528	36330	37712	33858.	34604.	36094.	33305.
-UACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT 12	[illegible]	[illegible]	0	[illegible]	[illegible]	0	[illegible]	719	0	339.	685	0
36685.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	38063.	40855.	36271.	36845.	39930.	35528.	36686	38431.	33858.	34943.	36778	33305.

4 LITTER-32 SOWS A REMODELED INSULATED AND VENTILATED BUILDING FOR FARROWING NEW OPEN FRONT SHED FOR GESTATION.

TABLE 75 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM E FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	4118.	0	4118.
GILT N. B.	1.0	0	0	0	0	0	418.	0	0	0	0	0	139.	557.
SOW N. B.	1.0	0	0	0	0	0	0	0	0	0	0	0	162.	162.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	0	488.	488.
TOTAL		0	0	0	0	0	418.	0	0	0	0	4118.	790.	5325.
CASH EXPENSES														
CORN	1.0	0	0	0	5.	163.	136.	120.	120.	124.	246.	388.	204.	1504.
SOYBEAN MEAL	1.0	0	0	0	3.	84.	74.	65.	65.	71.	180.	299.	113.	958.
MINERALS	1.0	0	0	0	0.	7.	6.	5.	5.	5.	12.	17.	9.	66.
OATS	1.0	0	0	0	0	0	0	0	0	1.	3.	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	3.	20.	5.	0	28.
SUGAR	1.0	0	0	0	0	0	0	0	0	1.	4.	0	0	5.
GRIND & MIX	1.0	0	0	0	0	9.	7.	6.	6.	7.	15.	22.	11.	83.
VET & MED.	1.0	0	0	0	0	25.	0	0	25.	63.	25.	0	0	138.
ELECTRICITY	1.0	0	0	0	0	0	10.	10.	10.	10.	62.	62.	10.	177.
INS. AND TAXES	1.0	0	0	0	0	0	0	107.	0	0	0	0	0	107.
HAULING & MKTG.	1.0	0	0	0	0	0	11.	0	0	0	0	130.	23.	164.
MISCL EXPENSE	1.0	0	0	0	0	20.	20.	20.	20.	20.	20.	20.	20.	160.
GILTS	1.0	0	0	0	3700.	0	0	0	0	0	1110.	0	0	4810.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
GESTATION SHED	1.0	0	0	0	4950.	0	0	0	0	0	0	0	0	4950.
FARROW-REMODEL	1.0	0	0	0	0	0	0	2608.	0	0	0	0	0	2608.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	300.	0	0	0	0	300.
SORTING CHUTE	1.0	0	0	0	0	0	0	0	145.	0	0	0	0	145.
FARROW CRATES	1.0	0	0	0	0	0	0	0	4000.	0	0	0	0	4000.
EQUIP-LUB&REPAIR	1.0	0	0	0	14.	14.	14.	21.	33.	33.	33.	33.	33.	228.
MANURE SPREADER	1.0	0	0	0	0	0	2000.	0	0	0	0	0	0	2000.
USED SKID LOADR	1.0	0	0	0	0	0	3500.	0	0	0	0	0	0	3500.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	81.	0	0	163.	0	0	163.	407.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	3.	0	0	5.	0	0	5.	13.
TOTAL		0	0	0	10022.	326.	5862.	2963.	4730.	506.	1730.	976.	590.	27705.

FLOW OF FUNDS SUMMARY DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	0	-10022.	-326.	-5444.	-2963.	-4730.	-506.	-1730.	3142.	199.	-22379.
=CURRENT CASH BALANCE	0	0	0	-10022.	-326.	-5444.	-2963.	-4730.	-506.	-1730.	3142.	199.	
+MONEY BORROWED	0	0	0	10022.	326.	5444.	2963.	4730.	506.	1730.	0	0	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	0	0	0	1861.	0	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	0	0	0	1281.	199.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1												
ACCUMULATED BORROWING	0	0	0	10022.	10348.	15792.	18755.	23485.	23991.	25721.	23860.	23860.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	0	0	0	0	100.	204.	362.	549.	784.	1024.	0	39.
0 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	0	0	0	10022.	10448.	15996.	19116.	24034.	24775.	26745.	23860.	23899.

TABLE 76 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM E SECOND YEAR OF PRODUCTION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	0	0	5978.	0	0	0	0	0	0	0	5978.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	4595.	0	4595.
GILT N. B.	1.0	0	0	0	0	0	139.	0	0	0	0	0	139.	278.
SOW N. B.	1.0	0	0	0	0	0	162.	0	0	0	0	0	162.	324.
SOW CULL	1.0	0	0	0	0	488.	0	0	0	0	0	488.	0	977.
BOAR	1.0	0	0	527.	0	0	0	0	0	0	0	0	0	527.
TOTAL		0	0	527.	0	6467.	301.	0	0	0	0	5083.	301.	12679.
CASH EXPENSES														
CORN	1.0	197.	184.	188.	323.	337.	153.	167.	165.	183.	370.	296.	192.	2756.
SOYBEAN MEAL	1.0	104.	91.	112.	244.	255.	84.	84.	86.	115.	291.	206.	106.	1778.
MINERALS	1.0	8.	7.	8.	15.	15.	6.	7.	7.	8.	17.	13.	8.	119.
OATS	1.0	0	0	2.	3.	0	0	0	0	3.	1.	0	0	9.
WHEAT BRAN	1.0	0	0	7.	21.	0	0	0	0	12.	16.	0	0	56.
SUGAR	1.0	0	0	2.	3.	0	0	0	0	4.	2.	0	0	11.
GRIND & MIX	1.0	10.	9.	10.	19.	19.	8.	9.	9.	10.	22.	16.	10.	151.
VET & MED.	1.0	0	25.	63.	25.	0	0	0	25.	63.	25.	0	25.	251.
ELECTRICITY	1.0	10.	10.	10.	62.	62.	10.	10.	10.	10.	62.	62.	10.	332.
HAULING & MKTG.	1.0	18.	0	0	0	160.	9.	0	0	0	0	160.	9.	355.
INS. AND TAXES	1.0	0	0	0	0	0	0	142.	0	0	0	0	0	142.
MISCL EXPENSE	1.0	20.	20.	20.	20.	20.	20.	20.	20.	20.	20.	20.	20.	240.
YOUNG BOAR	1.0	0	0	1350.	0	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	0	163.	0	0	163.	0	0	163.	0	0	163.	651.
MACHINE(FUEL,LUB,REP)		0	0	5.	0	0	5.	0	0	5.	0	0	5.	21.
EQUIP. (FUEL,LUB,REP)		33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	401.
TOTAL		401.	381.	1993.	768.	1062.	500.	472.	354.	630.	859.	967.	589.	8976.

FLOW OF FUNDS SUMMARY — DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-401.	-381.	-1466.	-768.	5405.	-199.	-472.	-354.	-630.	-859.	4117.	-288.	3703.
=CURRENT CASH BALANCE	-401.	-381.	-1466.	-768.	5405.	-199.	-472.	-354.	-630.	-859.	4117.	-288.	
+MONEY BORROWED	401.	381.	1466.	768.	0	199.	472.	354.	630.	859.	0	288.	
-PAYMENT ON LOAN	0	0	0	0	4108.	0	0	0	0	0	2690.	0	
-INTEREST PAID AT .12	0	0	0	0	1296.	0	0	0	0	0	1427.	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

23860.00LOAN OUT-JAN 1

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	24261.	24642.	26108	26876.	22767.	22966.	23438.	23793.	24423.	25282.	22592.	22880.
39.00ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	278.	520.	767.	1028.	0	228	457.	692.	930.	1174.	0	226.
23899.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	24538.	25162.	26874.	27904.	22767.	23194.	23896.	24485.	25353.	26456.	22592.	23106.

2 LITTER-16 SOWS REMODELED UNINSULATED DAIRY BARN FOR FARROWING AND NURSERY.
NEW OPEN FRONT SHED FOR GESTATION.

TABLE 77 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM F FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	0	4248.	4248.
SOW N. B.	1.0	0	0	0	0	0	0	0	0	0	0	0	162.	162.
GILT N. B.	1.0	0	0	0	0	0	0	418.	0	418.	0	0	139.	974.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	0	488.	488.
TOTAL		0	0	0	0	0	0	418.	0	418.	0	0	5038.	5873.
CASH EXPENSES														
CORN	1.0	0	0	0	0	123.	152.	120.	234.	241.	273.	539.	360.	2041.
SOYBEAN MEAL	1.0	0	0	0	0	67.	84.	65.	125.	132.	174.	392.	215.	1253.
MINERALS	1.0	0	0	0	0	5.	7.	5.	10.	10.	13.	24.	15.	89.
OATS	1.0	0	0	0	0	0	0	0	0	0	4.	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	0	18.	11.	0	29.
SUGAR	1.0	0	0	0	0	0	0	0	0	0	5.	0	0	5.
GRIND & MIX	1.0	0	0	0	0	6.	8.	6.	12.	13.	16.	30.	19.	111.
VET & MED.	1.0	0	0	0	0	30.	30.	30.	30.	30.	51.	30.	30.	261.
INS. AND TAXES	1.0	0	0	0	0	0	0	193.	0	0	0	0	0	193.
HAULING & MKTG.	1.0	0	0	0	0	0	0	11.	0	11.	0	0	153.	176.
LP GAS	1.0	0	0	0	0	0	0	0	0	0	0	53.	153.	205.
ELECTRICITY	1.0	0	0	0	0	0	12.	12.	159.	12.	12.	159.	12.	378.
MISCL EXPENSE	1.0	0	0	0	0	22.	22.	22.	22.	22.	22.	22.	22.	176.
GILTS	1.0	0	0	0	0	3700.	0	0	3700.	0	1110.	0	0	8510.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
GESTATION SHED	1.0	0	0	0	4833.	0	4833.	0	0	0	0	0	0	9666.
FARROW-REMODEL	1.0	0	0	0	0	0	0	4767.	0	0	0	0	0	4767.
FARROWING CRATES	1.0	0	0	0	0	0	0	0	4000.	0	0	0	0	4000.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	0	300.	0	0	0	300.
SORTING CHUTES	1.0	0	0	0	0	0	0	0	0	145.	0	0	0	145.
EQUIP-LUB&REPAIR	1.0	0	0	0	21.	21.	30.	30.	57.	57.	57.	57.	57.	387.
MANURE SPREADER	1.0	0	0	0	0	0	2000.	0	0	0	0	0	0	2000.
USED SKID LOADR	1.0	0	0	0	0	0	3500.	0	0	0	0	0	0	3500.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	156.	0	0	311.	0	0	311.	778.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	4.	0	0	8.	0	0	8.	21.
TOTAL		0	0	0	4854.	5324.	10838.	5263.	8349.	1292.	1754.	1315.	1355.	40345.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	0	-4854.	-5324.	-10838.	-4845.	-8349.	-875.	-1754.	-1315.	3683.	-34471.
=CURRENT CASH BALANCE	0	0	0	-4854.	-5324.	-10838.	-4845.	-8349.	-875.	-1754.	-1315.	3683.	
+MONEY BORROWED	0	0	0	4854.	5324.	10838.	4845.	8349.	875.	1754.	1315.	0	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	0	0	0	0	1621.	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	0	0	0	0	2062.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

-0LOAN OUT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	0	0	0	4854.	10178.	21016.	25861.	34210.	35085.	36839.	38154.	36533.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	0	0	0	0	43.	150.	360.	619.	961.	1312.	1680.	0
0 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	0	0	0	4854.	10227.	21166.	26222.	34829.	36046.	38151.	39835.	36533.

TABLE 78 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM F SECOND YEAR OF PRODUCTION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	5552.	0	0	0	0	0	0	0	0	0	5552.
FEEDER PIGS	1.0	0	0	0	0	0	5500.	0	0	0	0	0	0	5500.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	5334.	0	0	0	5334.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	0	4812.	4812.
SOW N. B.	1.0	0	0	162.	0	0	0	162.	0	162.	0	0	0	486.
GILT N. B.	1.0	0	0	139.	0	0	0	139.	0	139.	0	0	0	418.
SOW CULL	1.0	0	0	488.	0	0	488.	0	0	488.	0	0	0	1465.
BOAR	1.0	0	0	0	527.	0	0	0	0	0	0	0	0	527.
TOTAL		0	0	6341.	527.	0	5988.	301.	0	6123.	0	0	4812.	24092.
CASH EXPENSES														
CORN	1.0	365.	559.	404.	314.	591.	343.	348.	595.	329.	338.	630.	416.	5232.
SOYBEAN MEAL	1.0	231.	383.	239.	191.	422.	212.	215.	425.	197.	204.	441.	251.	3410.
MINERALS	1.0	16.	24.	17.	14.	26.	15.	15.	26.	14.	15.	27.	18.	226.
OATS	1.0	4.	0	0	4.	0.	0	0	0	0	5.	0	0	13.
WHEAT BRAN	1.0	20.	9.	0	17.	12.	0	18.	11.	0	17.	12.	0	115.
SUGAR	1.0	5.	0	0	5.	0.	0	6.	0	0	6.	0	0	22.
GRIND & MIX	1.0	21.	31.	22.	18.	27.	18.	20.	33.	18.	19.	35.	22.	282.
VET & MED.	1.0	51.	30.	30.	51.	30.	30.	51.	30.	30.	51.	30.	30.	444.
INS. AND TAXES	1.0	0	0	0	0	0	0	290.	0	0	0	0	0	290.
HAULING & MKTG.	1.0	0	0	153.	18.	0	166.	9.	0	175.	0	0	166.	687.
LP GAS	1.0	213.	153.	80.	14.	0	0	0	0	0	0	53.	153.	664.
ELECTRICITY	1.0	12.	159.	12.	12.	159.	12.	12.	159.	12.	12.	159.	12.	732.
MISCL EXPENSE	1.0	22.	22.	22.	22.	22.	22.	22.	22.	22.	22.	22.	22.	264.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
GILTS	1.0	0	1110.	0	0	0	0	0	0	0	0	0	0	1110.
TRACTOR(FUEL,LUB,REP)		0	0	311.	0	0	311.	0	0	311.	0	0	311.	1244.
MACHINE(FUEL,LUB,REP)		0	0	8.	0	0	8.	0	0	8.	0	0	9.	33.
EQUIP. (FUEL,LUB,REP)		57.	57.	57.	57.	57.	57.	57.	57.	57.	57.	57.	57.	680.
TOTAL		1015.	2535.	1355.	736.	2695.	1194.	1062.	1357.	1172.	745.	1465.	1465.	16799.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-1015.	-2535.	4986.	-210.	-2695.	4794.	-761.	-1357.	4951.	-745.	-1465.	3347.	7294.
=CURRENT CASH BALANCE	-1015.	-2535.	4986.	-210.	-2695.	4794.	-761.	-1357.	4951.	-745.	-1465.	3347.	
+MONEY BORROWED	1015.	2535.	0	210.	2695.	0	761.	1357.	0	745.	1465.	0	
-PAYMENT ON LOAN	0	0	3849.	0	0	3681.	0	0	3863.	0	0	2311.	
-INTEREST PAID AT .12	0	0	1137.	0	0	1113.	0	0	1087.	0	0	1036.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

36365.00LOAN OUT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	37380.	39916.	36066.	36276.	38971.	35290.	36051.	37408.	33545	34290.	35755.	33444.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	364.	737.	0	561.	723.	0	353.	713.	0	335.	678.	0
36365.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	37744.	40653.	36066.	36537.	39695.	35290.	36404.	38122.	33545.	34626.	36433.	33444.

4 LITTER-32 SOWS REMODELED INSULATED VENTILATED DAIRY BARN FOR FARROWING AND NURSERY, NEW OPEN FRONT SHED FOR GESTATION.

TABLE 79 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM F THIRD YEAR OF PRODUCTION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	6288.	0	0	0	0	0	0	0	0	0	6288.
FEEDER PIGS	1.0	0	0	0	0	0	5500.	0	0	0	0	0	0	5500.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	5334.	0	0	0	5334.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	0	4812.	4812.
SOW N. B.	1.0	162.	0	0	162.	0	0	162.	0	162.	0	0	0	648.
GILT N. B.	1.0	139.	0	139.	0	0	0	139.	0	139.	0	0	0	557.
SOW CULL	1.0	0	0	488.	0	0	488.	0	0	488.	0	0	488.	1954.
BOAR	1.0	0	0	0	527.	0	0	0	0	0	0	0	0	527.
TOTAL		301.	0	6916.	689.	0	5988.	301.	0	6123.	0	0	5300.	25619.
CASH EXPENSES														
CORN	1.0	402.	587.	373.	270.	552.	343.	348.	595.	329.	338.	630.	417.	5184.
SOYBEAN MEAL	1.0	248.	409.	228.	167.	397.	212.	215.	425.	197.	204.	441.	251.	3393.
MINERALS	1.0	18.	25.	16.	12.	24.	15.	15.	26.	14.	15.	27.	18.	224.
OATS	1.0	5.	0	0	4.	0.	0	5.	0	0	5.	0	0	18.
WHEAT BRAN	1.0	19.	10.	0	16.	13.	0	18.	11.	0	17.	12.	0	115.
SUGAR	1.0	6.	0	0	5.	0.	0	6.	0	0	6.	0	0	22.
GRIND & MIX	1.0	23.	32.	20.	15.	31.	18.	20.	33.	18.	19.	35.	22.	286.
VET & MED.	1.0	51.	30.	30.	51.	30.	30.	51.	30.	30.	51.	30.	30.	444.
INS. AND TAXES	1.0	0	0	0	0	0	0	290.	0	0	0	0	0	290.
HAULING & MKTG.	1.0	9.	0	166.	27.	0	166.	9.	0	175.	0	0	166.	718.
LP GAS	1.0	213.	153.	88.	14.	0	0	0	0	0	0	53.	153.	664.
ELECTRICITY	1.0	12.	159.	12.	12.	159.	12.	12.	159.	12.	12.	159.	12.	732.
MISCL EXPENSE	1.0	22.	22.	22.	22.	0	22.	22.	22.	22.	22.	22.	22.	242.
YOUNG BOAR	1.0	0	0	0	0	0	0	1350.	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	0	311.	0	0	311.	0	0	311.	0	0	311.	1244.
MACHINE(FUEL,LUB,REP)		0	0	8.	0	0	8.	0	0	8.	0	0	8.	33.
EQUIP. (FUEL,LUB,REP)		57.	57.	57.	57.	57.	57.	57.	57.	57.	57.	57.	57.	680.
TOTAL		1082.	1484.	1322.	672.	1264.	1194.	2417.	1357.	1172.	745.	1465.	1466.	15640.
FLOW OF FUNDS SUMMARY						DOLLARS								
CASH BALANCE BEGINING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE		-781.	-1484.	5594.	17.	-1264.	4794.	-2116.	-1357.	4951.	-745.	-1465.	3834.	9979.
=CURRENT CASH BALANCE		-781.	-1484.	5594.	17.	-1264.	4794.	-2116.	-1357.	4951.	-745.	-1465.	3834.	
+MONEY BORROWED		781.	1484.	0	0	1264.	0	2116.	1357.	0	745.	1465.	0	
-PAYMENT ON LOAN		0	0	4560.	0	0	3864.	0	0	4038.	0	0	2965.	
-INTEREST PAID AT .12		0	0	1034.	17.	0	930.	0	0	912.	0	0	869.	
=CASH BALANCE ENDING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
CURRENT LOAN SUMMARY						DOLLARS								
33444.00LOAN OUT-JAN 1														
ACCUMULATED BORROWING		34225.	35709.	31149.	31149.	32413.	28549.	30664.	32021.	27983.	28728.	30193.	27228.	
-UACCRUED INTEREST-JAN 1														
ACCRUED INTEREST AT .12		334.	677.	0	295.	606.	0	285.	592.	0	280.	567.	0	
33444.00 ACCURED TOTAL DEBT-JAN 1														
ACCUMULATED TOTAL DEBT		34559.	36386.	31149.	31444.	33019.	28549.	30950.	32613.	27983.	29008.	30760.	27228.	

4 LITTER-32 SOWS REMODELED INSULATED VENTILATED DAIRY BARN FOR FARROWING AND NURSERY. NEW OPEN FRONT SHED FOR GESTATION.

TABLE 80 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM 6 FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	0	4378.	4378.
GILT N. B.	1.0	0	0	0	0	0	0	418.	0	835.	0	418.	0	1670.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	0	488.	488.
TOTAL		0	0	0	0	0	0	418.	0	835.	0	418.	4867.	6537.
CASH EXPENSES														
CORN	1.0	0	0	0	0	51.	162.	177.	283.	264.	384.	566.	590.	2479.
SOYBEAN MEAL	1.0	0	0	0	0	28.	88.	97.	1029.	145.	222.	381.	393.	2384.
MINERALS	1.0	0	0	0	0	2.	7.	8.	12.	12.	17.	25.	26.	109.
OATS	1.0	0	0	0	0	0	0	0	0	0	2.	2.	2.	6.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	0	9.	20.	9.	38.
SUGAR	1.0	0	0	0	0	0	0	0	0	0	3.	2.	3.	8.
GRIND & MIX	1.0	0	0	0	0	3.	7.	9.	13.	14.	21.	32.	32.	131.
VET & MED.	1.0	0	0	0	0	26.	26.	26.	26.	26.	51.	51.	51.	283.
INS. AND TAXES	1.0	0	0	0	0	0	0	293.	0	0	0	0	0	293.
HAULING & MKTG%	1.0	0	0	0	0	0	0	11.	0	11.	0	11.	150.	183.
LP GAS	1.0	0	0	0	0	0	0	0	0	0	26.	61.	176.	263.
ELECTRICITY	1.0	0	0	0	0	45.	45.	45.	45.	45.	89.	89.	89.	490.
MISCL EXPENSE	1.0	0	0	0	0	23.	23.	23.	23.	23.	23.	23.	23.	184.
GILTS	1.0	0	0	0	0	3700.	0	4255.	0	3700.	0	1110.	0	12765.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
GESTATION SHED	1.0	0	0	0	10000.	9928.	0	0	0	0	0	0	0	19928.
REMODEL DAIRY BN	1.0	0	0	0	0	0	0	11511.	10000.	0	0	0	0	21511.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	0	300.	0	0	0	300.
SORTING CHUTE	1.0	0	0	0	0	0	0	0	0	145.	0	0	0	145.
FEED SYSTEM	1.0	0	0	0	0	1918.	0	0	0	0	0	0	0	1918.
EQUIP-LUB&REPAIR	1.0	0	0	0	32.	69.	69.	104.	135.	137.	137.	137.	137.	957.
MANURE-PIT PUMP	1.0	0	0	0	0	0	0	0	0	0	3500.	0	0	3500.
USED SKID LOADR	1.0	0	0	0	0	0	0	3500.	0	0	0	0	0	3500.
MANURE SPREADER	1.0	0	0	0	0	0	0	2000.	0	0	0	0	0	2000.
LIQ MANURE SPDR	1.0	0	0	0	0	0	0	0	0	0	6000.	0	0	6000.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	0	151.	0	151.	78.	151.	0	532.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	0	8.	0	8.	31.	8.	0	54.
TOTAL		0	0	0	10032.	17142.	427.	22218.	11566.	4980.	10593.	2670.	1682.	81311.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	0	-10032.	-17142.	-427.	-21801.	-11566.	-4145.	-10593.	-2253.	3185.	-74774.
=CURRENT CASH BALANCE	0	0	0	-10032.	-17142.	-427.	-21801.	-11566.	-4145.	-10593.	-2253.	3185.	
+MONEY BORROWED	0	0	0	10032.	17142.	427.	21801.	11566.	4145.	10593.	2253.	0	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	0	0	0	0	0	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	0	0	0	0	3185.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1 ACCUMULATED BORROWING	0	0	0	10032.	27174.	27601.	49402.	60968.	65113.	75706.	77959.	77959.
-0ACCRUED INTEREST-JAN 1 ACCRUED INTEREST AT .12	0	0	0	0	100.	372.	648.	1142.	1752.	2403.	3160.	755.
0 ACCURED TOTAL DEBT-JAN 1 ACCUMULATED TOTAL DEBT	0	0	0	10032.	27274.	27973.	50050.	62110.	66865.	78109.	81119.	78713.

TABLE 81 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM G SECOND YEAR OF PRODUCTION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	5308.	0	0	0	0	0	0	0	0	0	0	5308.
FEEDER PIGS	1.0	0	0	0	5908.	0	0	0	0	0	0	0	0	5908.
FEEDER PIGS	1.0	0	0	0	0	0	5649.	0	0	0	0	0	0	5649.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	5535.	0	0	0	0	5535.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	5352.	0	0	5352.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	0	4942.	4942.
SOW N. B.	1.0	162.	0	162.	0	162.	0	162.	0	324.	0	162.	0	1134.
GILT N. B.	1.0	139.	0	139.	0	139.	0	139.	0	418.	0	139.	0	1114.
SOW CULL	1.0	0	488.	0	488.	0	488.	0	488.	0	488.	0	488.	2930.
BOAR	1.0	0	0	0	0	527.	0	0	0	0	0	0	0	527.
TOTAL		301.	5796.	301.	6397.	828.	6137.	301.	6023.	742.	5841.	301.	5430.	38398.
CASH EXPENSES														
CORN	1.0	626.	596.	677.	635.	664.	636.	654.	655.	621.	643.	690.	716.	7814.
SOYBEAN MEAL	1.0	419.	383.	435.	412.	439.	421.	429.	431.	409.	428.	450.	464.	5118.
MINERALS	1.0	27.	25.	29.	27.	29.	27.	28.	28.	27.	28.	30.	31.	337.
OATS	1.0	2.	2.	2.	2.	3.	2.	3.	2.	3.	2.	2.	2.	27.
WHEAT BRAN	1.0	20.	7.	22.	8.	21.	8.	21.	8.	21.	9.	20.	9.	174.
SUGAR	1.0	2.	2.	3.	3.	3.	3.	3.	3.	3.	3.	3.	3.	33.
GRIND & MIX	1.0	35.	32.	36.	34.	36.	35.	35.	36.	34.	36.	38.	39.	426.
VET & MED.	1.0	51.	51.	51.	51.	51.	51.	51.	51.	51.	51.	51.	51.	612.
INS. AND TAXES	1.0	0	0	0	0	0	0	440.	0	0	0	0	0	440.
HAULING & MKTG.	1.0	9.	150.	9.	150.	27.	170.	9.	170.	9.	170.	9.	170.	1052.
LP GAS	1.0	198.	150.	103.	36.	10.	0	0	0	0	26.	61.	170.	753.
ELECTRICITY	1.0	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	1069.
MISCL EXPENSE	1.0	23.	23.	23.	23.	23.	23.	23.	23.	23.	23.	23.	23.	276.
YOUNG BOAR	1.0	0	0	0	0	0	1350.	0	0	0	0	0	0	1350.
GILTS	1.0	1110.	0	1110.	0	0	0	0	0	0	0	0	0	2220.
TRACTOR(FUEL,LUB,REP)		151.	0	151.	78.	151.	0	151.	0	151.	78.	151.	0	1064.
MACHINE(FUEL,LUB,REP)		8.	0	8.	31.	8.	0	8.	0	8.	31.	8.	0	108.
EQUIP. (FUEL,LUB,REP)		137.	137.	137.	137.	137.	137.	137.	137.	137.	137.	137.	137.	1643.
TOTAL		2907.	1648.	2885.	1716.	1691.	2951.	2081.	1632.	1585.	1753.	1763.	1904.	24517.

FLOW OF FUNDS SUMMARY — DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-2606.	4148.	-2584.	4681.	-863.	3186.	-1780.	4391.	-844.	4088.	-1462.	3526.	13881.
=CURRENT CASH BALANCE	-2606.	4148.	-2584.	4681.	-863.	3186.	-1780.	4391.	-844.	4088.	-1462.	3526.	
+MONEY BORROWED	2606.	0	2584.	0	863.	0	1780.	0	844.	0	1462.	0	
-PAYMENT ON LOAN	0	1812.	0	3082.	0	1614.	0	2825.	0	2552.	0	2018.	
-INTEREST PAID AT .12	0	2336.	0	1599.	0	1572.	0	1566.	0	1536.	0	1508.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

77882.00LOAN OUT-JAN 1

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	80488.	78676.	81260.	78179.	79042.	77428.	79208.	76384.	77228.	74676.	76137.	74119.
752.00ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	1531.	0	787.	0	782.	0	774.	0	764.	0	747.	0
78634.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	82019.	78676.	82047.	78179.	79824.	77428.	79983.	76384.	77991.	74676.	76884.	74119.

6 LITTER-48 SOWS REMODELED INSULATED VENTILATED DAIRY BARN WITH MANURE STORAGE FOR FARROWING AND NURSERY.NEW MODIFIED OPEN FRONT SHED FOR GESTATION

TABLE 82 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM 6 THIRD YEAR OF PRODUCTION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	5833.	0	0	0	0	0	0	0	0	0	0	5833.
FEEDER PIGS	1.0	0	0	0	6669.	0	0	0	0	0	0	0	0	6669.
FEEDER PIGS	1.0	0	0	0	0	0	5649.	0	0	0	0	0	0	5649.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	5535.	0	0	0	0	5535.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	5352.	0	0	5352.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	0	4942.	4942.
SOW N. B.	1.0	162.	0	162.	0	162.	0	162.	0	324.	0	162.	0	1134.
GILT N. B.	1.0	139.	0	139.	0	139.	0	139.	0	418.	0	139.	0	1114.
SOW CULL	1.0	0	488.	0	488.	0	488.	0	488.	0	488.	0	488.	2930.
BOAR	1.0	0	0	0	0	527.	0	0	0	0	0	0	0	527.
TOTAL		301.	6321.	301.	7157.	828.	6137.	301.	6023.	742.	5841.	301.	5430.	39684.
CASH EXPENSES														
CORN	1.0	715.	660.	716.	659.	650.	636.	654.	655.	621.	643.	690.	716.	8016.
SOYBEAN MEAL	1.0	465.	452.	460.	439.	429.	421.	429.	431.	409.	428.	450.	464.	5277.
MINERALS	1.0	31.	31.	31.	28.	29.	27.	28.	28.	27.	28.	30.	31.	349.
OATS	1.0	2.	2.	3.	2.	3.	2.	3.	2.	3.	2.	2.	2.	28.
WHEAT BRAN	1.0	20.	7.	22.	7.	22.	8.	21.	8.	21.	9.	20.	9.	175.
SUGAR	1.0	3.	2.	3.	2.	3.	3.	3.	3.	3.	3.	3.	3.	34.
GRIND & MIX	1.0	40.	36.	39.	36.	35.	35.	35.	36.	34.	36.	38.	39.	437.
VET & MED.	1.0	51.	51.	51.	51.	51.	51.	51.	51.	51.	51.	51.	51.	612.
INS. AND TAXES	1.0	0	0	0	0	0	0	440.	0	0	0	0	0	440.
HAULING & MKTG.	1.0	9.	170.	9.	170.	27.	170.	9.	170.	9.	170.	9.	170.	1092.
LP GAS	1.0	198.	150.	103.	36.	10.	0	0	0	0	26.	62.	176.	760.
ELECTRICITY	1.0	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	1069.
MISCL EXPENSE	1.0	23.	23.	23.	23.	23.	23.	23.	23.	23.	23.	23.	23.	276.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		151.	0	151.	78.	151.	0	151.	0	151.	78.	151.	0	1064.
MACHINE(FUEL,LUB,REP)		8.	0	8.	31.	8.	0	8.	0	8.	31.	8.	0	108.
EQUIP. (FUEL,LUB,REP)		137.	137.	137.	137.	137.	137.	137.	137.	137.	137.	137.	137.	1643.
TOTAL		1942.	1810.	1845.	3140.	1667.	1601.	2081.	1632.	1585.	1753.	1764.	1910.	22730.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-1641.	4511.	-1543.	4018.	-839.	4536.	-1780.	4391.	-844.	4088.	-1463.	3520.	16954.
=CURRENT CASH BALANCE	-1641.	4511.	-1543.	4018.	-839.	4536.	-1780.	4391.	-844.	4088.	-1463.	3520.	
+MONEY BORROWED	1641.	0	1543.	0	839.	0	1780.	0	844.	0	1463.	0	
-PAYMENT ON LOAN	0	3013.	0	2547.	0	3093.	0	2983.	0	2714.	0	2178.	
-INTEREST PAID AT .12	0	1499.	0	1470.	0	1443.	0	1408.	0	1374.	0	1343.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
74119.00LOAN OUT-JAN 1												
ACCUMULATED BORROWING	75760.	72743.	74291.	71744	72583.	69490.	71270	68287.	69130.	66417.	67879.	65702.
-UACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	741.	0	727.	0	717.	0	695.	0	683.	0	664.	0
74119.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	76501.	72748.	75019.	71744.	73300.	69490.	71965.	68287.	69813.	66417.	68544.	65702.

6 LITTER-48 SOWS REMODELED INSULATED VENTILATED DAIRY BARN WITH MANURE STORAGE FOR FARROWING AND NURSERY, NEW MODIFIED OPEN FRONT SHED FOR GESTATION

TABLE 83 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM H FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	0	4248.	4248.
SOW N. B.	1.0	0	0	0	0	0	0	0	0	0	0	0	162.	162.
GILT N. B.	1.0	0	0	0	0	0	0	418.	0	418.	0	0	139.	974.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	0	488.	488.
TOTAL		0	0	0	0	0	0	418.	0	418.	0	0	5038.	5873.
CASH EXPENSES														
CORN	1.0	0	0	0	0	123.	152.	120.	234.	241.	273.	539.	360.	2041.
SOYBEAN MEAL	1.0	0	0	0	0	67.	84.	65.	125.	132.	174.	392.	215.	1253.
MINERALS	1.0	0	0	0	0	5.	7.	5.	10.	10.	13.	24.	15.	89.
OATS	1.0	0	0	0	0	0	0	0	0	0	4.	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	0	18.	11.	0	29.
SUGAR	1.0	0	0	0	0	0	0	0	0	0	5.	0	0	5.
GRIND & MIX	1.0	0	0	0	0	6.	8.	6.	12.	13.	16.	30.	19.	111.
VET & MED.	1.0	0	0	0	0	30.	30.	30.	30.	30.	51.	30.	30.	261.
INS. AND TAXES	1.0	0	0	0	0	0	0	193.	0	0	0	0	0	193.
HAULING & MKTG.	1.0	0	0	0	0	0	0	11.	0	11.	0	0	153.	176.
LP GAS	1.0	0	0	0	0	0	0	0	0	0	0	53.	153.	205.
ELECTRICITY	1.0	0	0	0	0	0	15.	15.	161.	15.	15.	161.	15.	398.
MISCL EXPENSE	1.0	0	0	0	0	22.	22.	22.	22.	22.	22.	22.	22.	176.
GILTS	1.0	0	0	0	0	3700.	0	0	3700.	0	1110.	0	0	8510.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
GESTATION SHED	1.0	0	0	0	4833.	0	4833.	0	0	0	0	0	0	9666.
GESTATION SHED	1.0	0	0	0	0	0	0	6696.	6696.	0	0	0	0	13392.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	0	300.	0	0	0	300.
SORTING CHUTES	1.0	0	0	0	0	0	0	0	0	145.	0	0	0	145.
MANURE SPREADER	1.0	0	0	0	0	0	2000.	0	0	0	0	0	0	2000.
USED SKID LOADR	1.0	0	0	0	0	0	3500.	0	0	0	0	0	0	3500.
EQUIP-LUB&REPAIR	1.0	0	0	0	11.	21.	36.	51.	52.	52.	52.	52.	52.	379.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	156.	0	0	311.	0	0	311.	778.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	4.	0	0	8.	0	0	8.	21.
TOTAL		0	0	0	4844.	5324.	10847.	7215.	11043.	1290.	1752.	1313.	1353.	44981.

FLOW OF FUNDS SUMMARY — DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	0	-4844.	-5324.	-10847.	-6798.	-11043.	-873.	-1752.	-1313.	3685.	-39108.
=CURRENT CASH BALANCE	0	0	0	-4844.	-5324.	-10847.	-6798.	-11043.	-873.	-1752.	-1313.	3685.	
+MONEY BORROWED	0	0	0	4844.	5324.	10847.	6798.	11043.	873.	1752.	1313.	0	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	0	0	0	0	1418.	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	0	0	0	0	2267.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1												
ACCUMULATED BORROWING	0	0	0	4844.	10168.	21015.	27813.	38855.	39728.	41480.	42793.	41375.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	0	0	0	0	48.	150.	360.	638.	1027.	1424.	1839.	0
0 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	0	0	0	4844.	10216.	21165.	28173.	39494.	40755.	42904.	44632.	41375.

TABLE 84 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM H SECOND YEAR OF PRODUCTION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	5552.	0	0	0	0	0	0	0	0	0	5552.
FEEDER PIGS	1.0	0	0	0	0	0	5500.	0	0	0	0	0	0	5500.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	5334.	0	0	0	5334.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	0	4812.	4812.
SOW N. B.	1.0	0	0	162.	0	0	0	162.	0	162.	0	0	0	486.
GILT N. B.	1.0	0	0	139.	0	0	0	139.	0	139.	0	0	0	418.
SOW CULL	1.0	0	0	488.	0	0	488.	0	0	488.	0	0	0	1465.
BOAR	1.0	0	0	0	527.	0	0	0	0	0	0	0	0	527.
TOTAL		0	0	6341.	527.	0	5988.	301.	0	6123.	0	0	4812.	24092.
CASH EXPENSES														
CORN	1.0	365.	559.	404.	514.	591.	343.	348.	595.	329.	338.	630.	416.	5232.
SOYBEAN MEAL	1.0	231.	383.	239.	191.	422.	212.	215.	425.	197.	204.	441.	251.	3410.
MINERALS	1.0	16.	24.	17.	14.	26.	15.	15.	26.	14.	15.	27.	18.	226.
OATS	1.0	4.	0	0	4.	0.	0	0	0	0	5.	0	0	13.
WHEAT BRAN	1.0	20.	9.	0	17.	12.	0	18.	11.	0	17.	12.	0	115.
SUGAR	1.0	5.	0	0	5.	0.	0	6.	0	0	6.	0	0	22.
GRIND & MIX	1.0	21.	31.	22.	18.	27.	18.	20.	33.	18.	19.	35.	22.	282.
VET & MED.	1.0	51.	30.	30.	51.	30.	30.	51.	30.	30.	51.	30.	30.	444.
INS. AND TAXES	1.0	0	0	0	0	0	0	290.	0	0	0	0	0	290.
HAULING & MKTG.	1.0	0	0	153.	18.	0	166.	9.	0	175.	0	0	166.	687.
LP GAS	1.0	213.	153.	80.	14.	0	0	0	0	0	0	53.	153.	664.
ELECTRICITY	1.0	12.	159.	12.	12.	159.	12.	12.	159.	12.	12.	159.	12.	732.
MISCL EXPENSE	1.0	22.	22.	22.	22.	22.	22.	22.	22.	22.	22.	22.	22.	264.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
GILTS	1.0	0	1110.	0	0	0	0	0	0	0	0	0	0	1110.
TRACTOR(FUEL,LUB,REP)		0	0	311.	0	0	311.	0	0	311.	0	0	311.	1244.
MACHINE(FUEL,LUB,REP)		0	0	8.	0	0	8.	0	0	8.	0	0	8.	33.
EQUIP. (FUEL,LUB,REP)		52.	52.	52.	52.	52.	52.	52.	52.	52.	52.	52.	52.	629.
TOTAL		1011.	2531.	1351.	732.	2691.	1190.	1058.	1353.	1168.	741.	1460.	1461.	16748.

FLOW OF FUNDS SUMMARY DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-1011.	-2531.	4990.	-206.	-2691.	4798.	-757.	-1353.	4955.	-741.	-1460.	3351.	7344.
=CURRENT CASH BALANCE	-1011.	-2531.	4990.	-206.	-2691.	4798.	-757.	-1353.	4955.	-741.	-1460.	3351.	
+MONEY BORROWED	1011.	2531.	0	206.	2691.	0	757.	1353.	0	741.	1460.	0	
-PAYMENT ON LOAN	0	0	3709.	0	0	3536.	0	0	3714.	0	0	2158.	
-INTEREST PAID AT .12	0	0	1282.	0	0	1262.	0	0	1241.	0	0	1193.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
41206.00LOAN OUT-JAN 1												
ACCUMULATED BORROWING	42217.	44748.	41040.	41245.	43936.	40400	41157.	42510.	38796.	39537.	40997.	38839.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	412.	834.	0	410.	823.	0	404.	816.	0	388.	783.	0
41206.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	42629.	45582	41040	41656.	44759.	40400.	41561.	43325.	38796.	39925.	41780.	38839.

4 LITTER-32 SOWS NEW POLE BUILDING FOR FARROWING AND NURSERY.
NEW POLE BUILGING FOR GESTATION.

TABLE 85 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FEEDER PIG PRODUCTION, SYSTEM H THIRD YEAR OF PRODUCTION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
FEEDER PIGS	1.0	0	0	6288.	0	0	0	0	0	0	0	0	0	6288.
FEEDER PIGS	1.0	0	0	0	0	0	5500.	0	0	0	0	0	0	5500.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	5334.	0	0	0	5334.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	0	0	4812.	4812.
SOW N. B.	1.0	162.	0	0	162.	0	0	162.	0	162.	0	0	0	648.
GILT N. B.	1.0	139.	0	139.	0	0	0	139.	0	139.	0	0	0	557.
SOW CULL	1.0	0	0	488.	0	0	488.	0	0	488.	0	0	488.	1954.
BOAR	1.0	0	0	0	527.	0	0	0	0	0	0	0	0	527.
TOTAL		301.	0	6916.	689.	0	5988.	301.	0	6123.	0	0	5300.	25619.
CASH EXPENSES														
CORN	1.0	402.	587.	373.	270.	552.	343.	348.	595.	329.	338.	630.	417.	5184.
SOYBEAN MEAL	1.0	248.	409.	228.	167.	397.	212.	215.	425.	197.	204.	441.	251.	3393.
MINERALS	1.0	18.	25.	16.	12.	24.	15.	15.	26.	14.	15.	27.	19.	224.
GRAIN	1.0	5.	0	0	4.	0.	0	5.	0	0	5.	0	0	18.
WHEAT BRAN	1.0	19.	18.	0	16.	13.	0	18.	11.	0	17.	12.	0	115.
SUGAR	1.0	6.	0	0	5.	0.	0	6.	0	0	6.	0	0	22.
GRIND & MIX	1.0	23.	32.	20.	15.	31.	18.	20.	33.	18.	19.	35.	22.	286.
VET & MED.	1.0	51.	30.	30.	51.	30.	30.	51.	30.	30.	51.	30.	30.	444.
INS. AND TAXES	1.0	0	0	0	0	0	0	290.	0	0	0	0	0	290.
HAULING & MKTG.	1.0	9.	0	166.	27.	0	166.	9.	0	175.	0	0	166.	718.
LP GAS	1.0	213.	153.	80.	14.	0	0	0	0	0	0	53.	153.	664.
ELECTRICITY	1.0	12.	159.	12.	12.	159.	12.	12.	159.	12.	12.	159.	12.	732.
MISCL EXPENSE	1.0	22.	22.	22.	22.	22.	22.	22.	22.	22.	22.	22.	22.	264.
YOUNG BOAR	1.0	0	0	0	0	0	0	1350.	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	0	311.	0	0	311.	0	0	311.	0	0	311.	1244.
MACHINE(FUEL,LUB,REP)		0	0	8.	0	0	8.	0	0	8.	0	0	8.	33.
EQUIP. (FUEL,LUB,REP)		52.	52.	52.	52.	52.	52.	52.	52.	52.	52.	52.	52.	629.
TOTAL		1078.	1480.	1318.	668.	1281.	1190.	2413.	1353.	1168.	741.	1460.	1462.	15611.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-777.	-1480.	5598.	21.	-1281.	4798.	-2112.	-1353.	4955.	-741.	-1460.	3838.	10007.
=CURRENT CASH BALANCE	-777.	-1480.	5598.	21.	-1281.	4798.	-2112.	-1353.	4955.	-741.	-1460.	3838.	
+MONEY BORROWED	777.	1480.	0	0	1281.	0	2112.	1353.	0	741.	1460.	0	
-PAYMENT ON LOAN	0	0	4402.	0	0	3706.	0	0	3871.	0	0	2793.	
-INTEREST PAID AT .12	0	0	1196.	21.	0	1093.	0	0	1084.	0	0	1045.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

38839.00LOAN OUT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING -UNACCRUED INTEREST-JAN 1	39616.	41095.	36693.	36693.	3797[illegible]	34269.	36380.	37733.	33862.	34603.	36063.	33270.
ACCRUED INTEREST AT .12	388.	785.	0	346.	713.	0	343.	706.	0	339.	685.	0
38839.00 ACCURED TOTAL DEBT-JAN 1 ACCUMULATED TOTAL DEBT	40004.	41880.	36693.	37039.	38687.	34269.	36723.	38439.	33862.	34941.	36748.	33270.

4 LITTER-32 SOWS NEW POLE BUILDING FOR FARROWING AND NURSERY.
NEW POLE BUILGING FOR GESTATION.

APPENDIX E

Farrow-to-Finish - Cash Flows

TABLE 86. MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM A IN FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
GILT N. R.	1.0	0	0	0	0	0	418.	0	0	0	0	0	0	418.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	2442.	0	2442.
BOAR	1.0	0	0	0	0	0	527.	0	0	0	0	0	0	527.
TOTAL		0	0	0	0	0	944.	0	0	0	0	2442.	0	3386.
CASH EXPENSES														
CORN	1.0	0	0	0	89.	122.	80.	70.	70.	136.	405.	680.	855.	2508.
SOYBEAN MEAL	1.0	0	0	0	49.	67.	44.	39.	39.	96.	335.	406.	444.	1518.
MINERALS	1.0	0	0	0	4.	5.	3.	3.	3.	7.	19.	21.	25.	89.
OATS	1.0	0	0	0	0	0	0	0	0	4.	0	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	17.	17.	0	0	34.
SUGAR	1.0	0	0	0	0	0	0	0	0	5.	0	0	0	5.
GRIND & MIX	1.0	0	0	0	5.	6.	4.	4.	4.	9.	24.	36.	44.	134.
VET & MED.	1.0	0	0	0	25.	0	0	0	25.	63.	25.	10.	10.	158.
ELECTRICITY	1.0	0	0	0	0	3.	0	0	0	0	0	1.	18.	22.
INS. AND TAXES	1.0	0	0	0	0	0	86.	0	0	0	0	0	0	86.
HAULING & MKTG.	1.0	0	0	0	0	0	33.	0	0	0	0	72.	0	105.
MISCL EXPENSE	1.0	0	0	0	17.	17.	17.	17.	17.	17.	17.	21.	26.	166.
GILTS	1.0	0	0	0	3700.	0	0	0	0	0	0	0	0	3700.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
GESTATION SHLTER	1.0	0	0	1502.	1502.	0	0	0	0	0	0	0	0	3004.
A-FRAME FARO-HUT	1.0	0	0	0	0	0	994.	994.	0	0	0	0	0	1988.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	300.	0	0	0	0	300.
SORTING CHUTE	1.0	0	0	0	0	0	0	0	145.	0	0	0	0	145.
FENCE	1.0	0	0	3240.	0	0	0	0	0	0	0	0	0	3240.
FINISH-REMOL-BLD	1.0	0	0	0	0	0	0	0	0	0	3913.	0	0	3913.
EQUIP-LUB&REPAIR	1.0	0	0	22.	30.	30.	34.	37.	40.	40.	60.	60.	60.	413.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	0	0	0	0	0	0	31.	31.
TOTAL		0	0	4764.	6771.	249.	1295.	1164.	643.	394.	4815.	1307.	1512.	22913.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	-4764.	-6771.	-249.	-351.	-1164.	-643.	-394.	-4815.	1135.	-1512.	-19527.
=CURRENT CASH BALANCE	0	0	-4764.	-6771.	-249.	-351.	-1164.	-643.	-394.	-4815.	1135.	-1512.	
+MONEY BORROWED	0	0	4764.	6771.	249.	351.	1164.	643.	394.	4815.	0	1512.	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	0	0	0	126.	0	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	0	0	0	1009.	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1 ACCUMULATED BORROWING	0	0	4764.	11535.	11784.	12135.	13299.	13942.	14336.	19150.	19024.	20536.
-0ACCRUED INTEREST-JAN 1 ACCRUED INTEREST AT .12	0	0	0	48.	163.	281.	402.	535.	675.	818.	0	190.
0 ACCURED TOTAL DEBT-JAN 1 ACCUMULATED TOTAL DEBT	0	0	4764.	11582.	11947.	12416.	13701.	14477.	15010.	19968.	19024.	20727.

TABLE 87 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM A IN SECOND YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	10019.	0	0	0	0	0	0	0	0	0	10019.
GILT N.B.	1.0	0	0	0	0	0	418.	0	0	0	0	0	0	418.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	2442.	0	2442.
BOAR	1.0	0	0	0	0	0	527.	0	0	0	0	0	0	527.
TOTAL		0	0	10019.	0	0	944.	0	0	0	0	2442.	0	13405.
CASH EXPENSES														
CORN	1.0	1315.	999.	180.	111.	122.	73.	70.	70.	136.	405.	680.	855.	5017.
SOYBEAN MEAL	1.0	474.	363.	91.	61.	67.	41.	39.	39.	96.	335.	406.	444.	2455.
MINERALS	1.0	41.	31.	7.	5.	5.	3.	3.	3.	7.	19.	21.	25.	169.
OATS	1.0	0	0	0	0	0	0	0	0	4.	0	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	17.	17.	0	0	34.
SUGAR	1.0	0	0	0	0	0	0	0	0	5.	0	0	0	5.
GRIND & MIX	1.0	64.	49.	9.	6.	6.	4.	4.	4.	9.	24.	36.	44.	259.
VET & MED	1.0	35.	10.	0	0	0	0	0	25.	63.	25.	10.	10.	178.
ELECTRICITY	1.0	29.	32.	30.	20.	3.	0	0	0	0	0	1.	18.	133.
INS. AND TAXES	1.0	0	0	0	0	0	0	115.	0	0	0	0	0	115.
MKTG & HAULING	1.0	0	0	245.	0	0	33.	0	0	0	0	72.	0	350.
MISCL EXPENSE	1.0	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	306.
YOUNG BOAR	1.0	0	0	1350.	0	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	0	70.	98.	0	0	0	0	0	0	0	70.	237.
MACHINE(FUEL,LUB,REP)		0	0	5.	3.	0	0	0	0	0	0	0	5.	13.
EQUIP. (FUEL,LUB,REP)		60.	60.	60.	60.	60.	60.	60.	60.	60.	60.	60.	60.	719.
TOTAL		2044.	1569.	2073.	388.	288.	239.	316.	226.	422.	910.	1311.	1556.	11344.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE		-2044.	-1569.	7945.	-388.	-288.	705.	-316.	-226.	-422.	-910.	1131.	-1556.	2061.
=CURRENT CASH BALANCE		-2044.	-1569.	7945.	-388.	-288.	705.	-316.	-226.	-422.	-910.	1131.	-1556.	
+MONEY BORROWED		2044.	1569.	0	388.	288.	0	316.	226.	422.	910.	0	1556.	
-PAYMENT ON LOAN		0	0	7083.	0	0	182.	0	0	0	0	216.	0	
-INTEREST PAID AT .12		0	0	863.	0	0	523.	0	0	0	0	915.	0	
=CASH BALANCE ENDING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

20536.00LOAN OUT-JAN 1

190.00ACCRUED INTEREST-JAN 1

20726.00 ACCURED TOTAL DEBT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	22580.	24149.	17067.	17454.	17743.	17560.	17877.	18103.	18525.	19435.	19219.	20775.
ACCRUED INTEREST AT .12	395.	621.	0	171.	345.	0	176.	354.	535.	721.	0	192.
ACCUMULATED TOTAL DEBT	22975	24770.	17067.	17625.	18088.	17560.	18052.	18458.	19061.	20156.	19219.	20968.

1 LITTER-16 GILTS FARROWING IN PORTABLE A-FRAME BUILDINGS. PORTABLE GESTATION FACILITIES. REMODELED PERMANENT BUILDING FOR FINISHING.

TABLE 98 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM B IN FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
GILT N. B.	1.0	0	0	0	0	0	418.	0	0	0	0	0	0	418.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	488.	0	0	488.
TOTAL		0	0	0	0	0	418.	0	0	0	488.	0	0	906.
CASH EXPENSES														
CORN	1.0	0	0	0	36.	117.	115.	94.	94.	159.	376.	750.	930.	2672.
SOYBEAN MEAL	1.0	0	0	0	19.	64.	62.	52.	52.	107.	303.	441.	487.	1588.
MINERALS	1.0	0	0	0	2.	5.	5.	4.	4.	8.	17.	25.	29.	98.
OATS	1.0	0	0	0	0	0	0	0	0	4.	0	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	17.	11.	0	0	28.
SUGAR	1.0	0	0	0	0	0	0	0	0	5.	0	0	0	5.
GRIND & MIX	1.0	0	0	0	2.	6.	6.	5.	5.	9.	21.	40.	48.	141.
VET & MED.	1.0	0	0	0	25.	0	0	0	25.	63.	25.	12.	12.	162.
ELECTRICITY	1.0	0	0	0	20.	3.	0	0	0	0	0	1.	18.	41.
INS. AND TAXES	1.0	0	0	0	0	0	0	161.	0	0	0	0	0	161.
HAULING & MKTG.	1.0	0	0	0	0	0	13.	0	0	0	17.	0	0	30.
MISCL EXPENSE	1.0	0	0	0	17.	17.	17.	17.	17.	17.	17.	17.	21.	157.
GILTS	1.0	0	0	0	3700.	0	0	0	0	0	1110.	0	0	4810.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
GESTATION SHLTER	1.0	0	0	1502.	1502.	0	0	0	0	0	0	0	0	3004.
A-FRAME FARO-HUT	1.0	0	0	0	0	0	994.	994.	0	0	0	0	0	1988.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	300.	0	0	0	0	300.
SORTING CHUTE	1.0	0	0	0	0	0	0	0	145.	0	0	0	0	145.
NURSERY	1.0	0	0	0	0	0	0	786.	786.	0	0	0	0	1572.
FENCE	1.0	0	0	3240.	0	0	0	0	0	0	0	0	0	3240.
FINISH-REMDL-BLD	1.0	0	0	0	0	0	0	0	0	0	3913.	0	0	3913.
EQUIP-LUB&REPAIR	1.0	0	0	13.	24.	24.	28.	36.	48.	48.	67.	67.	67.	422.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	0	0	0	0	0	0	70.	70.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	0	0	0	0	0	0	5.	5.
TOTAL		0	0	4755.	6696.	236.	1240.	2149.	1476.	436.	5878.	1352.	1687.	25905.

FLOW OF FUNDS SUMMARY — DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-24999.
+CASH DIFFERENCE	0	0	-4755.	-6696.	-236.	-822.	-2149.	-1476.	-436.	-5389.	-1352.	-1687.	
=CURRENT CASH BALANCE	0	0	-4755.	-6696.	-236.	-822.	-2149.	-1476.	-436.	-5389.	-1352.	-1687.	
+MONEY BORROWED	0	0	4755.	6696.	236.	822.	2149.	1476.	436.	5389.	1352.	1687.	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	0	0	0	0	0	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	0	0	0	0	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1												
ACCUMULATED BORROWING	0	0	4755.	11451.	11687.	12509.	14658.	16135.	16570.	21960.	23312.	24999.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	0	0	0	48.	162.	279.	404.	551.	712.	878.	1097.	1330.
0 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	0	0	4755.	11498.	11849.	12788.	15062.	16685.	17282.	22837.	24409.	26330.

TABLE 89 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM B IN SECOND YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	10356.	0	0	0	0	0	0	0	0	0	10356.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	11925.	0	0	0	11925.
GILT N.B.	1.0	139.	0	0	0	0	139.	0	0	0	0	0	0	278.
SOW N.B.	1.0	162.	0	0	0	0	162.	0	0	0	0	0	0	324.
SOW CULL	1.0	0	0	0	0	488.	0	0	0	0	488.	0	0	977.
BOAR	1.0	527.	0	0	0	0	0	0	0	0	0	0	0	527.
TOTAL		828.	0	10356.	0	488.	301.	0	0	11925.	488.	0	0	24387.
CASH EXPENSES														
CORN	1.0	1187.	1042.	345.	233.	408.	725.	883.	1106.	1028.	418.	797.	1003.	9175.
SOYBEAN MEAL	1.0	425.	380.	151.	171.	329.	412.	409.	392.	402.	334.	473.	534.	4409.
MINERALS	1.0	36.	32.	12.	11.	18.	22.	27.	34.	18.	19.	26.	31.	287.
OATS	1.0	0	0	1.	4.	0	0	0	0	4.	0.	0	0	9.
WHEAT BRAN	1.0	0	0	3.	19.	6.	0	0	0	16.	12.	0	0	56.
SUGAR	1.0	0	0	1.	4.	0	0	0	0	5.	0.	0	0	11.
GRIND & MIX	1.0	64.	54.	18.	14.	23.	32.	45.	54.	51.	24.	42.	52.	472.
VET & MED	1.0	37.	12.	25.	63.	37.	12.	12.	37.	63.	25.	12.	12.	347.
ELECTRICITY	1.0	29.	32.	30.	20.	3.	0	4.	4.	4.	4.	1.	18.	148.
INS. AND TAXES	1.0	0	0	0	0	0	0	215.	0	0	0	0	0	215.
MKTG & HAULING	1.0	25.	0	253.	0	14.	9.	0	0	283.	14.	0	0	598.
MISCL EXPENSE	1.0	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	306.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	0	70.	98.	0	70.	0	0	70.	0	0	70.	377.
MACHINE(FUEL,LUB,REP)		0	0	5.	3.	0	5.	0	0	5.	0	0	5.	24.
EQUIP. (FUEL,LUB,REP)		67.	67.	67.	67.	67.	67.	67.	67.	67.	67.	67.	67.	809.
TOTAL		1897.	1645.	1006.	732.	2281.	1380.	1687.	1718.	2043.	943.	1444.	1817.	18594.

FLOW OF FUNDS SUMMARY DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-1070.	-1645.	9350.	-732.	-1793.	-1078.	-1687.	-1718.	9882.	-454.	-1444.	-1817.	5793.
=CURRENT CASH BALANCE	-1070.	-1645.	9350.	-732.	-1793.	-1078.	-1687.	-1718.	9882.	-454.	-1444.	-1817.	
+MONEY BORROWED	1070.	1645.	0	732.	1793.	1078.	1687.	1718.	0	454.	1444.	1817.	
-PAYMENT ON LOAN	0	0	7232.	0	0	0	0	0	8461.	0	0	0	
-INTEREST PAID AT .12	0	0	2118.	0	0	0	0	0	1420.	0	0	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY DOLLARS

24999.00LOAN OUT-JAN 1

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	26069.	27713.	20481.	21213.	23006.	24085.	25772.	27490.	19029.	19483.	20927.	22744.
1330.00ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	1580.	1841.	0	205.	417.	647.	888.	1146.	0	190.	385.	594.
26329.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	27649.	29554.	20481.	21418.	23423.	24732.	26660.	28636.	19029.	19674.	21313.	23339.

2 LITTER-16 SOWS FARROWING IN PORTABLE A-FRAME BUILDINGS. PORTABLE NURSERY AND GESTATION FACILITIES. REMODELED PERMANENT BUILDING FOR FINISHING.

TABLE 90 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM B IN THIRD YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	11595.	0	0	0	0	0	0	0	0	0	11595.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	11925.	0	0	0	11925.
GILT N.B.	1.0	139.	0	0	0	0	139.	0	0	0	0	0	0	278.
SOW N.B.	1.0	162.	0	0	0	0	162.	0	0	0	0	0	0	324.
SOW CULL	1.0	0	0	0	0	488.	0	0	0	0	488.	0	0	977.
BOAR	1.0	527.	0	0	0	0	0	0	0	0	0	0	0	527.
TOTAL		828.	0	11595.	0	489.	301.	0	0	11925.	488.	0	0	25625.
CASH EXPENSES														
CORN	1.0	1313.	1109.	345.	233.	408.	725.	883.	1106.	1028.	418.	797.	1003.	9368.
SOYBEAN MEAL	1.0	468.	393.	151.	171.	329.	412.	409.	392.	402.	334.	473.	534.	4466.
MINERALS	1.0	40.	34.	12.	11.	18.	22.	27.	34.	18.	19.	26.	31.	293.
OATS	1.0	0	0	1.	4.	0	0	0	0	4.	0.	0	0	9.
WHEAT BRAN	1.0	0	0	3.	19.	6.	0	0	0	16.	12.	0	0	56.
SUGAR	1.0	0	0	1.	4.	0	0	0	0	5.	0.	0	0	11.
GRIND & MIX	1.0	64.	54.	18.	14.	23.	32.	45.	54.	51.	24.	42.	52.	472.
VET & MED	1.0	37.	12.	25.	63.	37.	12.	12.	37.	63.	25.	12.	12.	347.
ELECTRICITY	1.0	29.	32.	30.	20.	3.	0	4.	4.	4.	4.	1.	18.	148.
INS. AND TAXES	1.0	0	0	0	0	0	0	215.	0	0	0	0	0	215.
MKTG & HAULING	1.0	25.	0	283.	0	14.	9.	0	0	283.	14.	0	0	628.
MISCL EXPENSE	1.0	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	306.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	0	70.	98.	0	70.	0	0	70.	0	0	70.	377.
MACHINE(FUEL,LUB,REP)		0	0	5.	3.	0	5.	0	0	5.	0	0	5.	24.
EQUIP. (FUEL,LUB,REP)		67.	67.	67.	67.	67.	67.	67.	67.	67.	67.	67.	67.	809.
TOTAL		2070.	1727.	1036.	732.	2281.	1380.	1687.	1718.	2043.	943.	1444.	1817.	18878.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-1242.	-1727.	10558.	-732.	-1793.	-1078.	-1687.	-1718.	9882.	-454.	-1444.	-1817.	6747.
=CURRENT CASH BALANCE	-1242.	-1727.	10558.	-732.	-1793.	-1078.	-1687.	-1718.	9882.	-454.	-1444.	-1817.	
+MONEY BORROWED	1242.	1727.	0	732.	1793.	1078.	1687.	1718.	0	454.	1444.	1817.	
-PAYMENT ON LOAN	0	0	9240.	0	0	0	0	0	8702.	0	0	0	
-INTEREST PAID AT .12	0	0	1318.	0	0	0	0	0	1180.	0	0	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
22744.00LOAN OUT-JAN 1												
ACCUMULATED BORROWING	23986.	25713.	16473.	17205.	18999.	20076.	21764.	23482.	14780.	15234.	16679.	18495.
594.00ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	821.	1061.	0	165.	337.	527.	728.	945.	0	148.	300.	467.
23338.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	24807.	26774.	16473.	17370.	19335.	20603.	22491.	24427.	14780.	15382.	16979.	18962.

2 LITTER-16 SOWS FARROWING IN PORTABLE A-FRAME BUILDINGS. PORTABLE NURSERY AND GESTATION FACILITIES. REMODFLED PERMANENT BUILDING FOR FINISHING.

TABLE 91 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM C IN FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
GILT N. B.	1.0	0	0	0	0	0	418.	0	0	0	0	0	139.	557.
SOW N. B.	1.0	0	0	0	0	0	0	0	0	0	0	0	162.	162.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	488.	0	488.
TOTAL		0	0	0	0	0	418.	0	0	0	0	488.	301.	1207.
CASH EXPENSES														
CORN	1.0	0	0	0	104.	165.	118.	120.	120.	157.	384.	725.	895.	2794.
SOYBEAN MEAL	1.0	0	0	0	57.	88.	64.	65.	65.	104.	309.	432.	484.	1669.
MINERALS	1.0	0	0	0	4.	7.	5.	5.	5.	7.	18.	24.	28.	104.
OATS	1.0	0	0	0	0	0	0	0	0	4.	0.	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	16.	12.	0	0	28.
SUGAR	1.0	0	0	0	0	0	0	0	0	4.	0.	0	0	5.
GRIND & MIX	1.0	0	0	0	5.	9.	6.	6.	6.	9.	23.	38.	46.	149.
VET & MED.	1.0	0	0	0	25.	0	0	0	25.	63.	25.	12.	37.	187.
ELECTRICITY	1.0	0	0	0	0	15.	15.	15.	15.	15.	87.	87.	18.	265.
INS. AND TAXES	1.0	0	0	0	0	0	0	139.	0	0	0	0	0	139.
HAULING & MKTG.	1.0	0	0	0	0	0	11.	0	0	0	0	14.	9.	34.
MISCL EXPENSE	1.0	0	0	0	19.	19.	19.	19.	19.	19.	19.	24.	29.	186.
GILTS	1.0	0	0	0	3700.	0	0	0	0	0	1110.	0	0	4810.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
GEST. REMOL BLDG	1.0	0	0	1853.	1853.	0	0	0	0	0	0	0	0	3706.
FARROW-REMODEL	1.0	0	0	0	0	3190.	0	0	0	0	0	0	0	3190.
FARROW CRATES	1.0	0	0	0	0	0	1690.	0	0	0	0	0	0	1690.
LOADING CHUTE	1.0	0	0	0	0	0	0	300.	0	0	0	0	0	300.
SORTING CHUTE	1.0	0	0	0	0	0	0	145.	0	0	0	0	0	145.
FINISH-REMOL-BLD	1.0	0	0	0	0	0	0	0	0	0	3913.	0	0	3913.
EQUIP-LUB&REPAIR	1.0	0	0	7.	14.	27.	33.	35.	35.	35.	49.	49.	49.	333.
USED SKID LOADR	1.0	0	0	0	0	0	0	0	0	3500.	0	0	0	3500.
MANURE SPREADER	1.0	0	0	0	0	0	0	0	0	2000.	0	0	0	2000.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	0	0	0	81.	0	0	233.	314.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	0	0	0	3.	0	0	10.	13.
TOTAL		0	0	1860.	7131.	3517.	1960.	849.	290.	6018.	5959.	1405.	1839.	30828.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE		0	0	-1860.	-7131.	-3517.	-1543.	-849.	-290.	-6018.	-5959.	-917.	-1537.	-29621.
=CURRENT CASH BALANCE		0	0	-1860.	-7131.	-3517.	-1543.	-849.	-290.	-6018.	-5959.	-917.	-1537.	
+MONEY BORROWED		0	0	1860.	7131.	3517.	1543.	849.	290.	6018.	5959.	917.	1537.	
-PAYMENT ON LOAN		0	0	0	0	0	0	0	0	0	0	0	0	
-INTEREST PAID AT .12		0	0	0	0	0	0	0	0	0	0	0	0	
=CASH BALANCE ENDING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1												
ACCUMULATED BORROWING	0	0	1860.	8991.	12508.	14051.	14900.	15190.	21208.	27167.	28084.	29621.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	0	0	0	19.	109.	234.	374.	523.	675.	887.	1159.	1440.
0 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	0	0	1860.	9010.	12617.	14285.	15274.	15713.	21883.	28054.	29242.	31061.

TABLE 92. MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM C IN SECOND YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	10356.	0	0	0	0	0	0	0	0	0	10356.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	11925.	0	0	0	11925.
GILT N.B.	1.0	0	0	0	0	0	139.	0	0	0	0	0	139.	278.
SOW N.B.	1.0	0	0	0	0	0	162.	0	0	0	0	0	162.	324.
SOW CULL	1.0	0	0	0	0	489.	0	0	0	0	0	488.	0	977.
BOAR	1.0	0	527.	0	0	0	0	0	0	0	0	0	0	527.
TOTAL		0	527.	10356.	0	488.	301.	0	0	11925.	0	488.	301.	24387.
CASH EXPENSES														
CORN	1.0	1202.	1065.	408.	401.	641.	741.	1139.	1121.	377.	417.	769.	965.	9246.
SOYBEAN MEAL	1.0	434.	392.	194.	315.	394.	421.	406.	186.	186.	328.	461.	531.	4246.
MINERALS	1.0	37.	33.	15.	18.	22.	23.	35.	35.	14.	19.	26.	31.	308.
OATS	1.0	0	0	4.	0.	0	0	0	0	4.	0.	0	0	9.
WHEAT BRAN	1.0	0	0	15.	13.	0	0	0	0	15.	13.	0	0	56.
SUGAR	1.0	0	0	5.	1.	0	0	0	0	5.	1.	0	0	11.
GRIND & MIX	1.0	59.	52.	22.	23.	34.	39.	56.	55.	20.	24.	41.	50.	474.
VET & MED	1.0	12.	37.	63.	25.	12.	12.	12.	37.	63.	25.	12.	12.	322.
ELECTRICITY	1.0	18.	18.	18.	91.	87.	15.	18.	18.	18.	91.	86.	15.	494.
INS. AND TAXES	1.0	0	0	0	0	0	0	185.	0	0	0	0	0	185.
MKTG & HAULING	1.0	0	18.	253.	0	14.	9.	0	0	283.	0	14.	9.	600.
MISCL EXPENSE	1.0	29.	29.	29.	29.	29.	29.	29.	29.	29.	29.	29.	29.	342.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	0	233.	0	0	233.	0	0	233.	0	0	233.	931.
MACHINE(FUEL,LUB,REP)		0	0	10.	0	0	10.	0	0	10.	0	0	10.	41.
EQUIP. (FUEL,LUB,REP)		49.	49.	49.	49.	49.	49.	49.	49.	49.	49.	49.	49.	585.
TOTAL		1839.	1692.	1318.	964.	2631.	1579.	1928.	1529.	1306.	994.	1486.	1933.	19200.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE		-1839.	-1166.	9039.	-964.	-2143.	-1278.	-1928.	-1529.	10619.	-994.	-998.	-1632.	5186.
=CURRENT CASH BALANCE		-1839.	-1166.	9039.	-964.	-2143.	-1278.	-1928.	-1529.	10619.	-994.	-998.	-1632.	
+MONEY BORROWED		1839.	1166.	0	964.	2143.	1278.	1928.	1529.	0	994.	998.	1632.	
-PAYMENT ON LOAN		0	0	6662.	0	0	0	0	0	8835.	0	0	0	
-INTEREST PAID AT	.12	0	0	2377.	0	0	0	0	0	1784.	0	0	0	
=CASH BALANCE ENDING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

29621.00LOAN OUT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	31460.	32626.	25964.	26929.	29072.	30350.	32278.	33807.	24972.	25966.	26964.	28596.
1440.00ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	1736.	2051.	0	260.	529.	820.	1123.	1446.	0	250.	509.	779.
31061.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	33197.	34677.	25964.	27188.	29601.	31170.	33401.	35253.	24972.	26216.	27474.	29375.

2 LITTER-16 SOWS A REMODELED UNINSULATED BUILDING FOR FARROWING AND NURSERY. OPEN FRONT REMODELED SHED FOR GESTATION. REMODELED BUILDING FOR FINISHING.

TABLE 93 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM C IN THIRD YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	11595.	0	0	0	0	0	0	0	0	0	11595.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	11925.	0	0	0	11925.
GILT N.B.	1.0	0	0	0	0	0	139.	0	0	0	0	0	139.	278.
SOW N.B.	1.0	0	0	0	0	0	162.	0	0	0	0	0	162.	324.
SOW CULL	1.0	0	0	0	0	488.	0	0	0	0	0	488.	0	977.
BOAR	1.0	0	527.	0	0	0	0	0	0	0	0	0	0	527.
TOTAL		0	527.	11595.	0	488.	301.	0	0	11925.	0	488.	301.	25625.
CASH EXPENSES														
CORN	1.0	1322.	1166.	470.	401.	641.	741.	1139.	1121.	377.	417.	769.	965.	9528.
SOYBEAN MEAL	1.0	473.	423.	215.	315.	394.	421.	406.	186.	186.	328.	461.	531.	4337.
MINERALS	1.0	40.	36.	17.	18.	22.	23.	35.	35.	14.	19.	26.	31.	316.
OATS	1.0	0	0	4.	I.	0	0	0	0	4.	0.	0	0	9.
WHEAT BRAN	1.0	0	0	14.	14.	0	0	0	0	15.	13.	0	0	56.
SUGAR	1.0	0	0	5.	I.	0	0	0	0	5.	1.	0	0	11.
GRIND & MIX	1.0	65.	57.	25.	23.	34.	39.	56.	55.	20.	24.	41.	50.	488.
VET & MED	1.0	12.	37.	63.	25.	12.	12.	12.	37.	63.	25.	12.	12.	322.
ELECTRICITY	1.0	18.	18.	18.	91.	87.	15.	18.	18.	18.	91.	86.	15.	494.
INS. AND TAXES	1.0	0	0	0	0	0	0	185.	0	0	0	0	0	185.
MKTG & HAULING	1.0	0	18.	283.	0	14.	9.	0	0	283.	0	14.	9.	630.
MISCL EXPENSE	1.0	29.	29.	29.	29.	29.	29.	29.	29.	29.	29.	29.	29.	342.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	0	233.	0	0	233.	0	0	233.	0	0	233.	931.
MACHINE(FUEL,LUB,REP)		0	0	10.	0	0	10.	0	0	10.	0	0	10.	41.
EQUIP. (FUEL,LUB,REP)		49.	49.	49.	49.	49.	49.	49.	49.	49.	49.	49.	49.	585.
TOTAL		2008.	1832.	1434.	965.	2631.	1579.	1928.	1529.	1306.	994.	1486.	1933.	19626.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-2008.	-1306.	10161.	-965.	-2143.	-1278.	-1928.	-1529.	10619.	-994.	-998.	-1632.	5999.
=CURRENT CASH BALANCE	-2008.	-1306.	10161.	-965.	-2143.	-1278.	-1928.	-1529.	10619.	-994.	-998.	-1632.	
+MONEY BORROWED	2008.	1306.	0	965.	2143.	1278.	1928.	1529.	0	994.	998.	1632.	
-PAYMENT ON LOAN	0	0	8471.	0	0	0	0	0	8986.	0	0	0	
-INTEREST PAID AT .12	0	0	1690.	0	0	0	0	0	1632.	0	0	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

28596.00LOAN OUT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	30604.	31910.	23439.	24404.	26547.	27825.	29753.	31282.	22296.	23290.	24288.	25919.

779.00ACCRUED INTEREST-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCRUED INTEREST AT .12	1065.	1371.	0	234.	478.	744.	1022.	1320.	0	223.	456.	699.

29375.00 ACCRUED TOTAL DEBT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED TOTAL DEBT	31669.	33281.	23439.	24638.	27025.	28569.	30775.	32602.	22296.	23513.	24744.	26618.

2 LITTER-16 SOWS A REMODELED UNINSULATED BUILDING FOR FARROWING AND NURSERY.
OPEN FRONT REMODELED SHED FOR GESTATION. REMODELED BUILDING FOR FINISHING.

TABLE 94. MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM D IN THIRD YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	12045.	0	0	0	0	0	0	0	0	0	12045.
SLAUGHTER HOGS	1.0	0	0	0	0	0	12229.	0	0	0	0	0	0	12229.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	12388.	0	0	0	12388.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	0	0	0	11849.	11849.
GILT N.B.	1.0	139.	0	0	139.	0	0	139.	0	0	139.	0	0	557.
SOW N.B.	1.0	162.	0	0	162.	0	0	162.	0	0	162.	0	0	648.
SOW CULL	1.0	0	0	488.	0	0	488.	0	0	488.	0	0	488.	1954.
BOAR	1.0	0	0	0	527.	0	0	0	0	0	0	0	0	527.
TOTAL		301.	0	12533.	828.	0	12717.	301.	0	12876.	301.	0	12337.	52195.
CASH EXPENSES														
CORN	1.0	1311.	1628.	2273.	1030.	1584.	1807.	1072.	1597.	1866.	1094.	1739.	2177.	19179.
SOYBEAN MEAL	1.0	677.	758.	1024.	529.	751.	813.	563.	763.	834.	558.	809.	992.	9071.
MINERALS	1.0	44.	56.	71.	34.	55.	57.	36.	55.	58.	37.	60.	68.	630.
OATS	1.0	5.	0	0	4.	0.	0	5.	0	0	4.	0	0.	18.
WHEAT BRAN	1.0	19.	10.	0	16.	13.	0	17.	12.	0	17.	0	12.	115.
SUGAR	1.0	6.	0	0	5.	0.	0	6.	0	0	5.	0.	0	22.
GRIND & MIX	1.0	68.	83.	115.	54.	81.	91.	56.	82.	94.	62.	89.	110.	986.
VET & MED	1.0	65.	58.	44.	65.	58.	44.	65.	58.	65.	65.	58.	44.	689.
INS. AND TAXES	1.0	0	0	0	0	0	0	380.	0	0	0	0	0	380.
MKTG & HAULING	1.0	9.	0	309.	27.	0	309.	9.	0	309.	9.	0	309.	1290.
LP GAS	1.0	213.	153.	80.	14.	0	0	0	0	0	0	53.	153.	664.
ELECTRICITY	1.0	37.	208.	37.	37.	208.	37.	37.	208.	37.	37.	208.	37.	1127.
MISCL EXPENSE	1.0	32.	32.	32.	32.	32.	32.	32.	32.	32.	32.	32.	32.	378.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	70.	381.	0	70.	381.	0	70.	381.	0	70.	381.	1804.
MACHINE(FUEL,LUB,REP)		0	5.	13.	0	5.	13.	0	5.	13.	0	5.	13.	74.
EQUIP. (FUEL,LUB,REP)		79.	79.	79.	79.	79.	79.	79.	79.	79.	79.	79.	79.	945.
TOTAL		2563.	3138.	4457.	3276.	2936.	3663.	2356.	2959.	3768.	1999.	3200.	4407.	38722.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-2262.	-3138.	8076.	-2449.	-2936.	9054.	-2055.	-2959.	9108.	-1697.	-3200.	7930.	13473.
=CURRENT CASH BALANCE	-2262.	-3138.	8076.	-2449.	-2936.	9054.	-2055.	-2959.	9108.	-1697.	-3200.	7930.	
+MONEY BORROWED	2262.	3138.	0	2449.	2936.	0	2055.	2959.	0	1697.	3200.	0	
-PAYMENT ON LOAN	0	0	6444.	0	0	7451.	0	0	7575.	0	0	6479.	
-INTEREST PAID AT .12	0	0	1632.	0	0	1603.	0	0	1533.	0	0	1451.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

51851.00LOAN OUT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	54113.	57251.	50807.	53256.	56191.	48740.	50795.	53754.	46178.	47876.	51076.	44597.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	519.	1060.	0	508.	1041.	0	487.	995.	0	462.	941.	0
51851.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	54631.	58311.	50807.	53764.	57232.	48740.	51282.	54749.	46178.	48338.	52016.	44597.

4 LITTER-32 SOWS A REMODELED INSULATED AND VENTILATED BUILDING FOR FARROWING NEW OPEN FRONT SHED FOR GESTATIO AND FOR FINISHING.

TABLE 95 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM E IN FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
GILT N. B.	1.0	0	0	0	0	0	418.	0	0	0	0	0	139.	557.
SOW N. B.	1.0	0	0	0	0	0	0	0	0	0	0	0	162.	162.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	0	433.	433.
TOTAL		0	0	0	0	0	418.	0	0	0	0	0	734.	1152.
CASH EXPENSES														
CORN	1.0	0	0	0	5.	163.	136.	120.	120.	124.	246.	410.	877.	2199.
SOYBEAN MEAL	1.0	0	0	0	3.	88.	74.	65.	65.	71.	180.	310.	497.	1354.
MINERALS	1.0	0	0	0	0.	7.	6.	5.	5.	5.	12.	18.	28.	86.
OATS	1.0	0	0	0	0	0	0	0	0	1.	3.	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	3.	20.	5.	0	28.
SUGAR	1.0	0	0	0	0	0	0	0	0	1.	4.	0	0	5.
GRIND & MIX	1.0	0	0	0	0	9.	7.	6.	6.	7.	14.	23.	45.	116.
VET & MED.	1.0	0	0	0	25.	0	0	0	25.	63.	25.	12.	37.	187.
ELECTRICITY	1.0	0	0	0	0	0	10.	10.	10.	10.	10.	66.	62.	180.
MISCL EXPENSE	1.0	0	0	0	21.	21.	21.	21.	21.	21.	21.	26.	30.	203.
HAULING & MKTG%	1.0	0	0	0	0	0	11.	0	0	0	0	14.	9.	34.
INS. AND TAXES	1.0	0	0	0	0	0	0	126.	0	0	0	0	0	126.
GILTS	1.0	0	0	0	3700.	0	0	0	0	0	1110.	0	0	4810.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
GESTATION SHED	1.0	0	0	0	4950.	0	0	0	0	0	0	0	0	4950.
FARROW-REMODEL	1.0	0	0	0	0	0	0	2608.	0	0	0	0	0	2608.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	300.	0	0	0	0	300.
SORTING CHUTE	1.0	0	0	0	0	0	0	0	145.	0	0	0	0	145.
FARROW CRATES	1.0	0	0	0	0	0	0	0	4000.	0	0	0	0	4000.
FINISH-REMDL-BLD	1.0	0	0	0	0	0	0	0	0	3913.	0	0	0	3913.
MANURE SPREADER	1.0	0	0	0	0	0	2000.	0	0	0	0	0	0	2000.
USED SKID LOADR	1.0	0	0	0	0	0	3500.	0	0	0	0	0	0	3500.
EQUIP-LUB&REPAIR	1.0	0	0	0	14.	14.	14.	21.	33.	47.	47.	47.	47.	284.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	0	0	0	81.	0	0	163.	244.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	0	0	0	3.	0	0	5.	8.
TOTAL		0	0	0	10068.	302.	5779.	2983.	4731.	4350.	1692.	931.	1800.	32634.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	0	-10068.	-302.	-5361.	-2983.	-4731.	-4350.	-1692.	-931.	-1066.	-31483.
=CURRENT CASH BALANCE	0	0	0	-10068.	-302.	-5361.	-2983.	-4731.	-4350.	-1692.	-931.	-1066.	
+MONEY BORROWED	0	0	0	10068.	302.	5361.	2983.	4731.	4350.	1692.	931.	1066.	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	0	0	0	0	0	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	0	0	0	0	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-ULOAN OUT-JAN 1 0 ACCUMULATED BORROWING	0	0	0	10068.	10369.	15730.	18713.	23444.	27794.	29485.	30416.	31483.
-UACCRUED INTEREST-JAN 1 0 ACCRUED INTEREST AT .12	0	0	0	0	101.	204.	362.	549.	783.	1061.	1356.	1660.
0 ACCURED TOTAL DEBT-JAN 1 ACCUMULATED TOTAL DEBT	0	0	0	10068.	10470.	15935.	19075.	23993.	28577.	30547.	31772.	33143.

TABLE 96 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM E IN SECOND YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	10356.	0	0	0	0	0	0	0	0	0	10356.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	11925.	0	0	0	11925.
GILT N.B.	1.0	0	0	0	0	0	139.	0	0	0	0	0	139.	278.
SOW N.B.	1.0	0	0	0	0	0	162.	0	0	0	0	0	162.	324.
SOW CULL	1.0	0	0	0	0	488.	0	0	0	0	0	488.	0	977.
BOAR	1.0	0	527.	0	0	0	0	0	0	-0	0	0	0	527.
TOTAL		0	527.	10356.	0	488.	301.	0	0	11925.	0	488.	301.	24387.
CASH EXPENSES														
CORN	1.0	1004.	1082.	1084.	323.	494.	743.	993.	1129.	773.	385.	686.	939.	9636.
SOYBEAN MEAL	1.0	465.	392.	412.	244.	345.	422.	418.	407.	312.	299.	429.	534.	4678.
MINERALS	1.0	31.	33.	35.	15.	19.	23.	31.	35.	26.	18.	24.	29.	319.
OATS	1.0	0	0	2.	3.	0	0	0	0	3.	1.	0	0	9.
WHEAT BRAN	1.0	0	0	7.	21.	0	0	0	0	12.	16.	0	0	56.
SUGAR	1.0	0	0	11.	7.	0	0	0	0	9.	4.	0	0	30.
GRIND & MIX	1.0	65.	57.	25.	23.	34.	39.	56.	55.	20.	24.	41.	50.	488.
VET & MED	1.0	12.	37.	63.	25.	12.	12.	12.	37.	63.	25.	12.	37.	347.
ELECTRICITY	1.0	14.	14.	14.	66.	62.	10.	14.	14.	14.	66.	62.	10.	363.
MKTG & HAULING	1.0	0	18.	270.	0	14.	9.	0	0	283.	0	14.	9.	617.
INS. AND TAXES	1.0	0	0	0	0	0	0	168.	0	0	0	0	0	168.
MISCL EXPENSE	1.0	30.	30.	30.	30.	30.	30.	30.	30.	30.	30.	0	30.	330.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	0	233.	0	0	233.	0	0	233.	0	0	233.	931.
MACHINE(FUEL,LUB,REP)		0	0	10.	0	0	10.	0	0	10.	0	0	10.	41.
EQUIP. (FUEL,LUB,REP)		47.	47.	47.	47.	47.	47.	47.	47.	47.	47.	47.	47.	569.
TOTAL		1669.	1710.	2243.	2154.	1059.	1578.	1769.	1755.	1836.	914.	1316.	1929.	19932.
FLOW OF FUNDS SUMMARY						DOLLARS								
CASH BALANCE BEGINING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE		-1669.	-1184.	8113.	-2154.	-570.	-1277.	-1769.	-1755.	10089.	-914.	-827.	-1628.	4455.
=CURRENT CASH BALANCE		-1669.	-1184.	8113.	-2154.	-570.	-1277.	-1769.	-1755.	10089.	-914.	-827.	-1628.	
+MONEY BORROWED		1669.	1184.	0	2154.	570.	1277.	1769.	1755.	0	914.	827.	1628.	
-PAYMENT ON LOAN		0	0	5464.	0	0	0	0	0	8135.	0	0	0	
-INTEREST PAID AT .12		0	0	2650.	0	0	0	0	0	1954.	0	0	0	
=CASH BALANCE ENDING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
CURRENT LOAN SUMMARY						DOLLARS								
31483.00LOAN OUT-JAN 1														
ACCUMULATED BORROWING		33152.	34335.	28872.	31026.	31597.	32874.	34643.	36397.	28262.	29177.	30004.	31632.	
1660.00ACCRUED INTEREST-JAN 1														
ACCRUED INTEREST AT .12		1975.	2306.	0	289.	599.	915.	1244.	1590.	0	283.	574.	874.	
33143.00 ACCURED TOTAL DEBT-JAN 1														
ACCUMULATED TOTAL DEBT		35127.	36642.	28872.	31315.	32196.	33789.	35886.	37987.	28262.	29459.	30579.	32506.	

2 LITTER-16 SOWS REMODELED UNINSULATED DAIRY BARN FOR FARROWING AND NURSERY. NEW OPEN FRONT SHED FOR GESTATION. REMODELED BUILDING FOR FINISHING.

TABLE 97 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM E IN THIRD YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	11595.	0	0	0	0	0	0	0	0	0	11595.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	11925.	0	0	0	11925.
GILT N.B.	1.0	0	0	0	0	0	139.	0	0	0	0	0	139.	278.
SOW N.B.	1.0	0	0	0	0	0	162.	0	0	0	0	0	162.	324.
SOW CULL	1.0	0	0	0	0	488.	0	0	0	0	0	488.	0	977.
BOAR	1.0	0	527.	0	0	0	0	0	0	0	0	0	0	527.
TOTAL		0	527.	11595.	0	488.	301.	0	0	11925.	0	488.	301.	25625.
CASH EXPENSES														
CORN	1.0	1322.	1166.	470.	401.	641.	741.	1139.	1121.	377.	417.	769.	965.	9528.
SOYBEAN MEAL	1.0	473.	423.	215.	315.	394.	421.	406.	186.	186.	328.	461.	531.	4337.
MINERALS	1.0	40.	36.	17.	18.	22.	23.	35.	35.	14.	19.	26.	31.	316.
OATS	1.0	0	0	4.	I.	0	0	0	0	4.	0.	0	0	9.
WHEAT BRAN	1.0	0	0	14.	14.	0	0	0	0	15.	13.	0	0	56.
SUGAR	1.0	0	0	5.	1.	0	0	0	0	5.	1.	0	0	11.
GRIND & MIX	1.0	65.	57.	25.	23.	34.	39.	56.	55.	20.	24.	41.	50.	488.
VET & MED	1.0	12.	37.	63.	25.	12.	12.	12.	37.	63.	25.	12.	37.	347.
ELECTRICITY	1.0	14.	14.	14.	66.	62.	10.	14.	14.	14.	66.	62.	10.	363.
MKTG & HAULING	1.0	0	18.	283.	0	14.	9.	0	0	283.	0	14.	9.	630.
INS. AND TAXES	1.0	0	0	0	0	0	0	168.	0	0	0	0	0	168.
MISCL EXPENSE	1.0	30.	30.	30.	30.	30.	30.	30.	30.	30.	30.	0	30.	330.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	0	233.	0	0	233.	0	0	233.	0	0	233.	931.
MACHINE(FUEL,LUB,REP)		0	0	10.	0	0	10.	0	0	10.	0	0	10.	41.
EQUIP. (FUEL,LUB,REP)		47.	47.	47.	47.	47.	47.	47.	47.	47.	47.	47.	47.	569.
TOTAL		2004.	1828.	1429.	2291.	1257.	1575.	1907.	1525.	1302.	970.	1432.	1954.	19474.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-2004.	-1302.	10165.	-2291.	-769.	-1274.	-1907.	-1525.	10623.	-970.	-944.	-1653.	6151.
=CURRENT CASH BALANCE	-2004.	-1302.	10165.	-2291.	-769.	-1274.	-1907.	-1525.	10623.	-970.	-944.	-1653.	
+MONEY BORROWED	2004.	1302.	0	2291.	769.	1274.	1907.	1525.	0	970.	944.	1653.	
-PAYMENT ON LOAN	0	0	8289.	0	0	0	0	0	8787.	0	0	0	
-INTEREST PAID AT .12	0	0	1876.	0	0	0	0	0	1836.	0	0	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

31632.00LOAN OUT-JAN 1

874.00ACCRUED INTEREST-JAN 1

32506.00 ACCURED TOTAL DEPT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	33636.	34938.	26643.	28939.	29708.	30982.	32889.	34414.	25627.	26597.	27541.	29193.
ACCRUED INTEREST AT .12	1190.	1527.	0	266	556.	853	1163.	1492.	0	256.	522.	798.
ACCUMULATED TOTAL DEBT	34826.	36464.	26648.	29206.	30264.	31835.	34052.	35905.	25627.	26953.	28063.	29991.

2 LITTER-16 SOWS REMODELED UNINSULATED DAIRY BARN FOR FARROWING AND NURSERY.
NEW OPEN FRONT SHED FOR GESTATION. REMODELED BUILDING FOR FINISHING.

TABLE 98 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM F IN FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SOW N. B.	1.0	0	0	0	0	0	0	0	0	0	0	0	162.	162.
GILT N. B.	1.0	0	0	0	0	0	0	418.	0	418.	0	0	139.	974.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	0	488.	488.
TOTAL		0	0	0	0	0	0	418.	0	418.	0	0	790.	1625.
CASH EXPENSES														
CORN	1.0	0	0	0	0	123.	152.	120.	234.	241.	273.	539.	1003.	2684.
SOYBEAN MEAL	1.0	0	0	0	0	67.	84.	65.	125.	132.	174.	392.	570.	1608.
MINERALS	1.0	0	0	0	0	5.	7.	5.	10.	10.	13.	24.	33.	107.
OATS	1.0	0	0	0	0	0	0	0	0	0	4.	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	0	18.	11.	0	29.
SUGAR	1.0	0	0	0	0	0	0	0	0	0	5.	0	0	5.
GRIND & MIX	1.0	0	0	0	0	6.	8.	6.	12.	13.	16.	30.	53.	144.
VET & MED.	1.0	0	0	0	0	30.	30.	30.	30.	30.	51.	30.	44.	275.
INS. AND TAXES	1.0	0	0	0	0	0	0	216.	0	0	0	0	0	216.
HAULING & MKTG.	1.0	0	0	0	0	0	0	11.	0	11.	0	0	24.	47.
LP GAS	1.0	0	0	0	0	0	0	0	0	0	0	53.	153.	205.
ELECTRICITY	1.0	0	0	0	0.	0.	15.	15.	15.	15.	15.	210.	34.	320.
MISCL EXPENSE	1.0	0	0	0	0	22.	22.	22.	22.	22.	21.	28.	33.	192.
GILTS	1.0	0	0	0	0	3700.	0	0	3700.	0	1110.	0	0	8510.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
GESTATION SHED	1.0	0	0	0	4833.	0	4833.	0	0	0	0	0	0	9666.
FARROW-REMODEL	1.0	0	0	0	0	0	0	4767.	0	0	0	0	0	4767.
FARROW CRATES	1.0	0	0	0	0	0	0	0	4000.	0	0	0	0	4000.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	0	300.	0	0	0	300.
SORTING CHUTE	1.0	0	0	0	0	0	0	0	0	145.	0	0	0	145.
FINISH-O.F. SHED	1.0	0	0	0	0	0	0	0	0	6619.	0	6619.	0	13238.
MANURE SPREADER	1.0	0	0	0	0	0	2000.	0	0	0	0	0	0	2000.
USED SKID LOADR	1.0	0	0	0	0	0	3500.	0	0	0	0	0	0	3500.
EQUIP-LUB&REPAIR	1.0	0	0	0	21.	21.	30.	30.	57.	69.	69.	80.	80.	457.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	156.	0	0	311.	0	0	381.	848.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	4.	0	0	8.	0	0	13.	26.
TOTAL		0	0	0	4854.	5324.	10841.	5288.	8205.	7926.	1768.	8015.	2421.	54643.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE		0	0	0	-4854.	-5324.	-10841	-4871.	-8205.	-7509.	-1768.	-8015.	-1631.	-53018.
=CURRENT CASH BALANCE		0	0	0	-4854.	-5324.	-10841.	-4871.	-8205.	-7509.	-1768.	-8015.	-1631.	
+MONEY BORROWED		0	0	0	4854.	5324.	10841.	4871.	8205.	7509.	1768.	8015.	1631.	
-PAYMENT ON LOAN		0	0	0	0	0	0	0	0	0	0	0	0	
-INTEREST PAID AT .12		0	0	0	0	0	0	0	0	0	0	0	0	
=CASH BALANCE ENDING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1												
ACCUMULATED BORROWING	0	0	0	4854.	10178.	21019.	25890.	34095.	41604.	43372.	51387.	53018.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	0	0	0	0	49.	150.	361.	619.	960.	1376.	1810.	2324.
0 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	0	0	0	4854.	10227.	21169.	26250.	34715.	42565.	44749.	53197.	55342.

TABLE 99 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM F IN SECOND YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	10694.	0	0	0	0	0	0	0	0	0	10694.
SLAUGHTER HOGS	1.0	0	0	0	0	0	10857.	0	0	0	0	0	0	10857.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	12388.	0	0	0	12388.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	0	0	0	11849.	11849.
GILT N.B.	1.0	0	0	139.	0	0	0	139.	0	139.	0	0	0	418.
SOW N.B.	1.0	0	0	162.	0	0	0	162.	0	162.	0	0	0	486.
SOW CULL	1.0	0	0	488.	0	0	488.	0	0	488.	0	0	488.	1954.
BOAR	1.0	0	0	0	527.	0	0	0	0	0	0	0	0	527.
TOTAL		0	0	11484.	527.	0	11346.	301.	0	13177.	0	0	12337.	49172.
CASH EXPENSES														
CORN	1.0	1181.	1482.	2038.	967.	1478.	1687.	1072.	1597.	1866.	1094.	1739.	2177.	18378.
SOYBEAN MEAL	1.0	608.	693.	925.	494.	719.	774.	563.	763.	834.	558.	809.	992.	8732.
MINERALS	1.0	40.	51.	64.	33.	52.	53.	36.	55.	58.	37.	60.	68.	606.
OATS	1.0	4.	0.	0	4.	0.	0	5.	0	0	4.	0	0.	18.
WHEAT BRAN	1.0	20.	9.	0	17.	12.	0	17.	12.	0	17.	12.	0	115.
SUGAR	1.0	5.	0	0	5.	0.	0	6.	0	0	5.	0.	0	22.
GRIND & MIX	1.0	62.	76.	103.	51.	76.	85.	56.	82.	94.	62.	89.	110.	945.
VET & MED	1.0	65.	58.	44.	65.	58.	44.	65.	58.	65.	65.	58.	44.	689.
INS. AND TAXES	1.0	0	0	0	0	0	0	328.	0	0	0	0	0	328.
MKTG & HAULING	1.0	0	0	284.	16.	0	276.	9.	0	318.	0	0	309.	1212.
LP GAS	1.0	213.	153.	80.	14.	0	0	0	0	0	0	53.	153.	664.
ELECTRICITY	1.0	34.	181.	34.	34.	181.	34.	34.	181.	34.	34.	181.	34.	996.
MISCL EXPENSE	1.0	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	396.
GILTS	1.0	0	0	1110.	0	0	0	0	0	0	0	0	0	1110.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	70.	381.	0	70.	381.	0	70.	381.	0	70.	381.	1804.
MACHINE(FUEL,LUB,REP)		0	5.	13.	0	5.	13.	0	5.	13.	0	5.	13.	74.
EQUIP. (FUEL,LUB,REP)		80.	80.	80.	80.	80.	80.	80.	80.	80.	80.	80.	80.	957.
TOTAL		2342.	2891.	5190.	3163.	2763.	3461.	2303.	2935.	3776.	1989.	3188.	4395.	38397.

FLOW OF FUNDS SUMMARY — DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-2342.	-2891.	6294.	-2637.	-2763.	7885.	-2002.	-2935.	9401.	-1989.	-3188.	7943.	10775.
=CURRENT CASH BALANCE	-2342.	-2891.	6294.	-2637.	-2763.	7885.	-2002.	-2935.	9401.	-1989.	-3188.	7943.	
+MONEY BORROWED	2342.	2891.	0	2637.	2763.	0	2002.	2935.	0	1989.	3188.	0	
-PAYMENT ON LOAN	0	0	2303.	0	0	6126.	0	0	7675.	0	0	6297.	
-INTEREST PAID AT .12	0	0	3990.	0	0	1759.	0	0	1726.	0	0	1646.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

53018.00LOAN OUT-JAN 1

2324.00ACCRUED INTEREST-JAN 1

55342.00 ACCURED TOTAL DEBT-JAN 1

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	55360.	58251.	55948.	58591.	61343.	55222	57224.	60159.	52484.	54473.	57661.	51364.
ACCRUED INTEREST AT .12	2854.	3408.	0	553.	1195.	0	552.	1124.	0	525.	1070.	0
ACCUMULATED TOTAL DEBT	58215.	61659.	55948.	59144.	62493.	55222	57776.	61283.	52484.	54998.	58730.	51364.

4 LITTER-32 SOWS REMODELED INSULATED VENTILATED DAIRY BARN FOR FARROWING AND NURSERY. NEW OPEN FRONT SHED FOR GESTATION AND FOR FINISHING.

TABLE 100 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM F IN THIRD YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	12045.	0	0	0	0	0	0	0	0	0	12045.
SLAUGHTER HOGS	1.0	0	0	0	0	0	12229.	0	0	0	0	0	0	12229.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	12388.	0	0	0	12388.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	0	0	0	11849.	11849.
GILT N.B.	1.0	139.	0	0	139.	0	0	139.	0	0	139.	0	0	557.
SOW N.B.	1.0	162.	0	0	162.	0	0	162.	0	0	162.	0	0	648.
SOW CULL	1.0	0	0	488.	0	0	488.	0	0	488.	0	0	488.	1954.
BOAR	1.0	0	0	0	527.	0	0	0	0	0	0	0	0	527.
TOTAL		301.	0	12533.	828.	0	12717.	301.	0	12876.	301.	0	12337.	52195.
CASH EXPENSES														
CORN	1.0	1311.	1628.	2273.	1030.	1584.	1807.	1072.	1597.	1866.	1094.	1739.	2177.	19179.
SOYBEAN MEAL	1.0	677.	758.	1024.	529.	751.	813.	563.	763.	834.	558.	809.	992.	9071.
MINERALS	1.0	44.	56.	71.	34.	55.	57.	36.	55.	58.	37.	60.	68.	630.
OATS	1.0	5.	0	0	4.	0.	0	5.	0	0	4.	0	0.	18.
WHEAT BRAN	1.0	19.	10.	0	16.	13.	0	17.	12.	0	17.	12.	0	115.
SUGAR	1.0	6.	0	0	5.	0.	0	6.	0	0	5.	0.	0	22.
GRIND & MIX	1.0	68.	83.	115.	54.	81.	91.	56.	82.	94.	62.	89.	110.	986.
VET & MED	1.0	65.	58.	44.	65.	58.	44.	65.	58.	65.	65.	58.	44.	689.
INS. AND TAXES	1.0	0	0	0	0	0	0	328.	0	0	0	0	0	328.
MKTG & HAULING	1.0	9.	0	309.	27.	0	309.	9.	0	309.	9.	0	309.	1290.
LP GAS	1.0	213.	153.	88.	14.	0	0	0	0	0	0	53.	153.	664.
ELECTRICITY	1.0	34.	181.	34.	34.	181.	34.	34.	181.	34.	34.	181.	34.	996.
MISCL EXPENSE	1.0	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	396.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	70.	381.	0	70.	381.	0	70.	381.	0	70.	381.	1804.
MACHINE(FUEL,LUB,REP)		0	5.	13.	0	5.	13.	0	5.	13.	0	5.	13.	74.
EQUIP. (FUEL,LUB,REP)		80.	80.	80.	80.	80.	80.	80.	80.	80.	80.	80.	80.	957.
TOTAL		2563.	3114.	4457.	3276.	2911.	3663.	2303.	2935.	3767.	1998.	3188.	4395.	38570.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-2261.	-3114.	8077.	-2448.	-2911.	9054.	-2002.	-2935.	9109.	-1697.	-3188.	7943.	13626.
=CURRENT CASH BALANCE	-2261.	-3114.	8077.	-2448.	-2911.	9054.	-2002.	-2935.	9109.	-1697.	-3189.	7043.	
+MONEY BORROWED	2261.	3114.	0	2448.	2911.	0	2002.	2935.	0	1697.	3188.	0	
-PAYMENT ON LOAN	0	0	6459.	0	0	7468.	0	0	7594.	0	0	6512.	
-INTEREST PAID AT .12	0	0	1617.	0	0	1586.	0	0	1515.	0	0	1431.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

51364.00LOAN OUT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING -UACCRUED INTEREST-JAN 1	53625.	56739.	50280.	52728.	55639.	48172.	50174.	53109.	45515.	47212.	50400.	43888.
ACCRUED INTEREST AT .12	514.	1050.	0	503.	1030.	0	482.	983.	0	455.	927.	0
51364.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	54139.	57789.	50280.	53231.	56670.	48172.	50656.	54092.	45515.	47667.	51327.	43888.

4 LITTER-32 SOWS REMODELED INSULATED VENTILATED DAIRY BARN FOR FARROWING AND NURSERY. NEW OPEN FRONT SHED FOR GESTATION AND FOR FINISHING.

TABLE 101 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM G IN FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
GILT N. B.	1.0	0	0	0	0	0	0	418.	0	835.	0	418.	0	1670.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	0	488.	488.
TOTAL		0	0	0	0	0	0	418.	0	835.	0	418.	488.	2159.
CASH EXPENSES														
CORN	1.0	0	0	0	0	51.	162.	177.	283.	264.	384.	566.	929.	2818.
SOYBEAN MEAL	1.0	0	0	0	0	28.	88.	97.	1029.	145.	222.	381.	574.	2565.
MINERALS	1.0	0	0	0	0	2.	7.	8.	12.	12.	17.	25.	35.	118.
OATS	1.0	0	0	0	0	0	0	0	0	0	2.	2.	2.	6.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	0	9.	20.	9.	38.
SUGAR	1.0	0	0	0	0	0	0	0	0	0	3.	2.	3.	8.
GRIND & MIX	1.0	0	0	0	0	3.	7.	9.	13.	14.	21.	32.	50.	149.
VET & MED.	1.0	0	0	0	0	26.	26.	26.	26.	26.	51.	51.	79.	311.
INS. AND TAXES	1.0	0	0	0	0	0	0	338.	0	0	0	0	0	338.
HAULING & MKTG.	1.0	0	0	0	0	0	0	11.	0	11.	0	11.	14.	47.
LP GAS	1.0	0	0	0	0	0	0	0	0	0	26.	61.	176.	263.
ELECTRICITY	1.0	0	0	0	0	45.	45.	45.	45.	45.	89.	89.	111.	512.
MISCL EXPENSE	1.0	0	0	0	0	23.	23.	23.	23.	23.	23.	23.	28.	189.
GILTS	1.0	0	0	0	0	3700.	0	4255.	0	3700.	0	1110.	0	12765.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
GESTATION SHED	1.0	0	0	0	10000.	9928.	0	0	0	0	0	0	0	19928.
FARO-REMDL DAIRY	1.0	0	0	0	0	0	0	11511.	10000.	0	0	0	0	21511.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	0	300.	0	0	0	300.
SORTING CHUTE	1.0	0	0	0	0	0	0	0	0	145.	0	0	0	145.
FEED SYSTEM	1.0	0	0	0	0	1918.	0	0	0	0	0	0	0	1918.
EQUIP-LUB&REPAIR	1.0	0	0	0	32.	69.	69.	104.	135.	149.	149.	160.	160.	1027.
FINISH-O.F. SHED	1.0	0	0	0	0	0	0	0	0	6619.	0	6619.	0	13238.
MANURE-PIT PUMP	1.0	0	0	0	0	0	0	0	0	0	3500.	0	0	3500.
USED SKID LOADR	1.0	0	0	0	0	0	0	3500.	0	0	0	0	0	3500.
MANURE SPREADER	1.0	0	0	0	0	0	0	2000.	0	0	0	0	0	2000.
LIQ MANURE SPDR	1.0	0	0	0	0	0	0	0	0	0	6000.	0	0	6000.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	0	151.	0	151.	0	70.	190.	563.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	0	8.	0	8.	0	5.	13.	33.
TOTAL		0	0	0	10032.	17142.	427.	22263.	11566.	11611.	10496.	9228.	2374.	95140.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	0	-10032.	-17142.	-427.	-21846.	-11566.	-10776.	-10496.	-8811.	-1885.	-92981.
=CURRENT CASH BALANCE	0	0	0	-10032.	-17142.	-427.	-21846.	-11566.	-10776.	-10496.	-8811	-1885.	
+MONEY BORROWED	0	0	0	10032.	17142.	427.	21846.	11566.	10776.	10496.	8811.	1885.	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	0	0	0	0	0	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	0	0	0	0	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1 ACCUMULATED BORROWING	0	0	0	10032.	27174.	27601.	49447.	61013.	71789.	82285.	91096.	92981.
-0ACCRUED INTEREST-JAN 1 ACCRUED INTEREST AT .12	0	0	0	0	100.	372.	648.	1143.	1753.	2471.	3293.	4204.
0 ACCURED TOTAL DEBT-JAN 1 ACCUMULATED TOTAL DEBT	0	0	0	10032.	27274.	27973.	50095.	62155.	73542.	84756.	94389.	97186.

TABLE 102 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM G IN SECOND YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0
SLAUGHTER HOGS	1.0	0	0	0	10194.	0	0	0	0	0	0	0	0	10194.
SLAUGHTER HOGS	1.0	0	0	0	0	0	11200.	0	0	0	0	0	0	11200.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	12097.	0	0	0	0	12097.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	0	12332.	0	0	12332.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	0	0	0	12181.	12181.
GILT N.B.	1.0	139.	0	139.	0	139.	0	139.	0	278.	0	139.	0	974.
SOW N.B.	1.0	162.	0	162.	0	162.	0	162.	0	486.	0	162.	0	1296.
SOW CULL	1.0	0	488.	0	488.	0	488.	0	488.	0	488.	0	488.	2930.
BOAR	1.0	0	0	0	0	527.	0	0	0	0	0	0	0	527.
TOTAL		301.	488.	301.	10683.	828.	11688.	301.	12585.	764.	12821.	301.	12670.	63732.
CASH EXPENSES														
CORN	1.0	1342.	1809.	2427.	2039.	2137.	2088.	2205.	2300.	2234.	2312.	2612.	2693.	26198.
SOYBEAN MEAL	1.0	828.	858.	1186.	937.	1061.	974.	1101.	1051.	1095.	1060.	1304.	1234.	12689.
MINERALS	1.0	49.	60.	80.	67.	71.	69.	73.	75.	74.	76.	86.	88.	866.
OATS	1.0	2.	2.	2.	2.	3.	2.	3.	2.	3.	2.	3.	2.	27.
WHEAT BRAN	1.0	20.	7.	22.	8.	21.	8.	21.	8.	22.	8.	21.	8.	174.
SUGAR	1.0	2.	2.	3.	3.	3.	3.	3.	3.	3.	3.	3.	3.	33.
GRIND & MIX	1.0	72.	92.	125.	104.	111.	106.	114.	117.	115.	117.	135.	137.	1345.
VET & MED	1.0	79.	79.	79.	79.	79.	79.	79.	79.	79.	79.	79.	79.	942.
INS. AND TAXES	1.0	0	0	0	0	0	0	512.	0	0	0	0	0	512.
MKTG & HAULING	1.0	9.	14.	9.	275.	27.	275.	9.	275.	13.	317.	9.	317.	1549.
LP GAS	1.0	198.	150.	103.	36.	101.	0	0	0	0	26.	62.	176.	851.
ELECTRICITY	1.0	111.	111.	111.	111.	111.	111.	111.	111.	111.	111.	111.	111.	1333.
MISCL EXPENSE	1.0	35.	35.	35.	35.	35.	35.	35.	35.	35.	35.	35.	35.	414.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		190.	70.	190.	148.	190.	70.	190.	70.	175.	206.	132.	128.	1761.
MACHINE(FUEL,LUB,REP)		13.	5.	13.	36.	13.	5.	13.	5.	13.	44.	5.	13.	177.
EQUIP. (FUEL,LUB,REP)		160.	160.	160.	160.	160.	160.	160.	160.	160.	160.	160.	160.	1920.
TOTAL		3108.	3454.	4544.	5389.	4122.	3984.	4628.	4290.	4130.	4555.	4755.	5182.	52142.

FLOW OF FUNDS SUMMARY — DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-2807.	-2966.	-4243.	5294.	-3294.	7704.	-4327.	8295.	-3366.	8266.	-4454.	7487.	11590.
=CURRENT CASH BALANCE	-2807.	-2966.	-4243.	5294.	-3294.	7704.	-4327.	8295.	-3366.	8266.	-4454.	7487.	
+MONEY BORROWED	2807.	2966.	4243.	0	3294.	0	4327.	0	3366.	0	4454.	0	
-PAYMENT ON LOAN	0	0	0	0	0	2796.	0	6182.	0	6199.	0	5467.	
-INTEREST PAID AT .12	0	0	0	5294.	0	4908.	0	2113.	0	2066.	0	2021.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

92981.00LOAN OUT-JAN 1

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	95788.	98754.	102997.	102997.	106291.	103494.	107821.	101639.	105005.	98806.	103260.	97793.

4204.00ACCRUED INTEREST-JAN 1

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCRUED INTEREST AT .12	5134.	6092.	7079.	2815.	3845.	0	1035.	0	1016.	0	988.	0

97185.00 ACCURED TOTAL DEBT-JAN 1

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED TOTAL DEBT	100922.	104846.	110076.	105812.	110136.	103494.	108856.	101639.	106021.	98806.	104248.	97793.

6 LITTER-48 SOWS REMODELED INSULATED VENTILATED DAIRY BARN FOR FARROWING AND NURSERY WITH MANURE STORAGE. NEW MODIFIED OPEN FRONT SHED FOR GESTATION. NEW OPEN FRONT SHED FOR FINISHING.

TABLE 103 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM G IN THIRD YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	13276.	0	0	0	0	0	0	0	0	0	0	13276.
SLAUGHTER HOGS	1.0	0	0	0	11804.	0	0	0	0	0	0	0	0	11804.
SLAUGHTER HOGS	1.0	0	0	0	0	0	12229.	0	0	0	0	0	0	12229.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	13578.	0	0	0	0	13578.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	0	12332.	0	0	12332.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	0	0	0	12181.	12181.
GILT N.B.	1.0	139.	0	139.	0	139.	0	139.	0	278.	0	139.	0	974.
SOW N.B.	1.0	162.	0	162.	0	162.	0	162.	0	486.	0	162.	0	1296.
SOW CULL	1.0	0	488.	0	488.	0	488.	0	488.	0	488.	0	488.	2930.
BOAR	1.0	0	0	0	0	527.	0	0	0	0	0	0	0	527.
TOTAL		301.	13765.	301.	12292.	828.	12717.	301.	14067.	764.	12821.	301.	12670.	81128.
CASH EXPENSES														
CORN	1.0	2708.	2482.	2688.	2241.	2312.	2242.	2243.	2356.	2234.	2312.	2612.	2693.	29122.
SOYBEAN MEAL	1.0	1325.	1115.	1305.	1028.	1132.	1032.	1132.	1074.	1095.	1060.	1304.	1234.	13837.
MINERALS	1.0	89.	80.	88.	73.	76.	73.	76.	77.	74.	76.	86.	88.	956.
OATS	1.0	2.	2.	3.	2.	3.	2.	3.	2.	3.	2.	3.	2.	28.
WHEAT BRAN	1.0	20.	7.	22.	7.	22.	7.	22.	7.	22.	8.	21.	8.	174.
SUGAR	1.0	3.	2.	3.	2.	3.	2.	3.	2.	3.	3.	3.	3.	34.
GRIND & MIX	1.0	140.	126.	138.	114.	119.	111.	119.	120.	115.	117.	135.	137.	1490.
VET & MED	1.0	79.	79.	79.	79.	79.	79.	79.	79.	79.	79.	79.	79.	942.
INS. AND TAXES	1.0	0	0	0	0	0	0	512.	0	0	0	0	0	512.
MKTG & HAULING	1.0	9.	317.	9.	317.	27.	309.	9.	317.	13.	317.	9.	317.	1970.
LP GAS	1.0	198.	150.	103.	36.	101.	0	0	0	0	26.	62.	176.	851.
ELECTRICITY	1.0	111.	111.	111.	111.	111.	111.	111.	111.	111.	111.	111.	111.	1333.
MISCL EXPENSE	1.0	35.	35.	35.	35.	35.	35.	35.	35.	35.	35.	35.	35.	414.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		190.	70.	190.	148.	190.	70.	190.	70.	175.	206.	132.	128.	1761.
MACHINE(FUEL,LUB,REP)		13.	5.	13.	36.	13.	5.	13.	5.	13.	44.	5.	13.	177.
EQUIP. (FUEL,LUB,REP)		160.	160.	160.	160.	160.	160.	160.	160.	160.	160.	160.	160.	1920.
TOTAL		5081.	4740.	4946.	5740.	4382.	4238.	4707.	4415.	4130.	4555.	4755.	5182.	56872.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-4780.	9024.	-4645.	6553.	-3555.	8479	-4406.	9651.	-3366.	8266.	-4454.	7487.	24255.
=CURRENT CASH BALANCE	-4780.	9024.	-4645.	6553.	-3555.	8479.	-4406.	9651.	-3366.	8266.	-4454.	7487.	
+MONEY BORROWED	4780.	0	4645.	0	3555.	0	4406.	0	3366.	0	4454.	0	
-PAYMENT ON LOAN	0	7021.	0	4595.	0	6531.	0	7755.	0	6447.	0	5719.	
-INTEREST PAID AT .12	0	2004.	0	1957.	0	1948.	0	1897.	0	1819.	0	1768.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

97793.00LOAN OUT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	102573.	95552.	100197	95502.	99156.	92625	97031	89276.	92642.	86195.	90649	84930.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	978	0	956.	0	956.	0	926.	0	893.	0	862.	0
97793.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	103550.	95552.	101152.	95502.	100112.	92625.	97957.	89276.	93535.	86195.	91511.	84930.

6 LITTER-45 SOWS REMODELED INSULATED VENTILATED DAIRY BARN FOR FARROWING AND NURSERY WITH MANURE STORAGE. NEW MODIFIED OPEN FRONT SHED FOR GESTATION. NEW OPEN FRONT SHED FOR FINISHING.

TABLE 104 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM H IN FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SOW N. B.	1.0	0	0	0	0	0	0	0	0	0	0	0	162.	162.
GILT N. B.	1.0	0	0	0	0	0	0	418.	0	418.	0	0	139.	974.
SOW CULL	1.0	0	0	0	0	0	0	0	0	0	0	0	488.	488.
TOTAL		0	0	0	0	0	0	418.	0	418.	0	0	790.	1625.
CASH EXPENSES														
CORN	1.0	0	0	0	0	123.	152.	120.	234.	241.	273.	539.	1003.	2684.
SOYBEAN MEAL	1.0	0	0	0	0	67.	84.	65.	125.	132.	174.	392.	570.	1608.
MINERALS	1.0	0	0	0	0	5.	7.	5.	10.	10.	13.	24.	33.	107.
OATS	1.0	0	0	0	0	0	0	0	0	0	4.	0	0	4.
WHEAT BRAN	1.0	0	0	0	0	0	0	0	0	0	18.	11.	0	29.
SUGAR	1.0	0	0	0	0	0	0	0	0	0	5.	0	0	5.
GRIND & MIX	1.0	0	0	0	0	6.	8.	6.	12.	13.	16.	30.	53.	144.
VET & MED.	1.0	0	0	0	0	30.	30.	30.	30.	30.	51.	30.	44.	275.
INS. AND TAXES	1.0	0	0	0	0	0	0	216.	0	0	0	0	0	216.
HAULING & MKTG.	1.0	0	0	0	0	0	0	11.	0	11.	0	0	24.	47.
LP GAS	1.0	0	0	0	0	0	0	0	0	0	0	53.	153.	205.
ELECTRICITY	1.0	0	0	0	0.	0.	15.	15.	15.	15.	15.	210.	34.	320.
MISCL EXPENSE	1.0	0	0	0	0	22.	22.	22.	22.	22.	21.	28.	33.	192.
GILTS	1.0	0	0	0	0	3700.	0	0	3700.	0	1110.	0	0	8510.
YOUNG BOAR	1.0	0	0	0	0	1350.	0	0	0	0	0	0	0	1350.
GESTATION SHED	1.0	0	0	0	4833.	0	4833.	0	0	0	0	0	0	9666.
NEW POLE BN-FARR	1.0	0	0	0	0	0	0	6696.	6696.	0	0	0	0	13392.
LOADING CHUTE	1.0	0	0	0	0	0	0	0	0	300.	0	0	0	300.
SORTING CHUTES	1.0	0	0	0	0	0	0	0	0	145.	0	0	0	145.
FINISH-O.F. SHED	1.0	0	0	0	0	0	0	0	0	6619.	0	6619.	0	13238.
MANURE SPREADER	1.0	0	0	0	0	0	2000.	0	0	0	0	0	0	2000.
USED SKID LOADR	1.0	0	0	0	0	0	3500.	0	0	0	0	0	0	3500.
EQUIP-LUB&REPAIR	1.0	0	0	0	11.	21.	36.	51.	52.	64.	64.	76.	76.	451.
TRACTOR(FUEL,LUB,REP)		0	0	0	0	0	156.	0	0	311.	0	0	381.	848.
MACHINE(FUEL,LUB,REP)		0	0	0	0	0	4.	0	0	8.	0	0	13.	26.
TOTAL		0	0	0	4844.	5324.	10847.	7238.	10896.	7921.	1763.	8011.	2417.	59262.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE		0	0	0	-4844.	-5324.	-10847.	-6821.	-10896.	-7504.	-1763.	-8011.	-1627.	-57637.
=CURRENT CASH BALANCE		0	0	0	-4844.	-5324.	-10847.	-6821.	-10896.	-7504.	-1763.	-8011.	-1627.	
+MONEY BORROWED		0	0	0	4844.	5324.	10847.	6821.	10896.	7504.	1763.	8011.	1627.	
-PAYMENT ON LOAN		0	0	0	0	0	0	0	0	0	0	0	0	
-INTEREST PAID AT .12		0	0	0	0	0	0	0	0	0	0	0	0	
=CASH BALANCE ENDING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1												
ACCUMULATED BORROWING	0	0	0	4844.	10168.	21015.	27836.	38732.	46236.	47999.	56010.	57637.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	0	0	0	0	48.	150.	360.	639.	1026.	1488.	1968.	2528.
0 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	0	0	0	4844.	10217.	21165.	28196.	39371.	47262.	49488.	57978.	60166.

TABLE 105 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM H IN SECOND YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	10694.	0	0	0	0	0	0	0	0	0	10694.
SLAUGHTER HOGS	1.0	0	0	0	0	0	10857.	0	0	0	0	0	0	10857.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	12388.	0	0	0	12388.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	0	0	0	11849.	11849.
GILT N.B.	1.0	0	0	139.	0	0	0	139.	0	139.	0	0	0	418.
SOW N.B.	1.0	0	0	162.	0	0	0	162.	0	162.	0	0	0	486.
SOW CULL	1.0	0	0	488.	0	0	488.	0	0	488.	0	0	488.	1954.
BOAR	1.0	0	0	0	527.	0	0	0	0	0	0	0	0	527.
TOTAL		0	0	11484.	527.	0	11346.	301.	0	13177.	0	0	12337.	49172.
CASH EXPENSES														
CORN	1.0	1181.	1482.	2038.	967.	1478.	1687.	1072.	1597.	1866.	1094.	1739.	2177.	18378.
SOYBEAN MEAL	1.0	608.	693.	925.	494.	719.	774.	563.	763.	834.	558.	809.	992.	8732.
MINERALS	1.0	40.	51.	64.	33.	52.	53.	36.	55.	58.	37.	60.	68.	606.
OATS	1.0	4.	0.	0	4.	0.	0	5.	0	0	4.	0	0.	18.
WHEAT BRAN	1.0	20.	9.	0	17.	12.	0	17.	12.	0	17.	0	12.	115.
SUGAR	1.0	5.	0	0	5.	0.	0	6.	0	0	5.	0.	0	22.
GRIND & MIX	1.0	62.	76.	103.	51.	76.	85.	56.	82.	94.	62.	89.	110.	945.
VET & MED	1.0	65.	58.	44.	65.	58.	44.	65.	58.	65.	65.	58.	44.	689.
INS. AND TAXES	1.0	0	0	0	0	0	0	328.	0	0	0	0	0	328.
MKTG & HAULING	1.0	0	0	284.	16.	0	276.	9.	0	318.	0	0	309.	1212.
LP GAS	1.0	213.	153.	80.	14.	0	0	0	0	0	0	53.	153.	664.
ELECTRICITY	1.0	34.	181.	34.	34.	181.	34.	34.	181.	34.	34.	181.	34.	996.
MISCL EXPENSE	1.0	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	396.
GILTS	1.0	0	0	1110.	0	0	0	0	0	0	0	0	0	1110.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	70.	381.	0	70.	381.	0	70.	381.	0	70.	381.	1804.
MACHINE(FUEL,LUB,REP)		0	5.	13.	0	5.	13.	0	5.	13.	0	5.	13.	74.
EQUIP. (FUEL,LUB,REP)		76.	76.	76.	76.	76.	76.	76.	76.	76.	76.	76.	76.	907.
TOTAL		2338.	2886.	5186.	3159.	2759.	3457.	2299.	2931.	3772.	1985.	3171.	4403.	38346.

FLOW OF FUNDS SUMMARY — DOLLARS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-2338.	-2886.	6298.	-2632.	-2759.	7889.	-1998.	-2931.	9405.	-1985.	-3171.	7935.	10826.
=CURRENT CASH BALANCE	-2338.	-2886.	6298.	-2632.	-2759.	7889.	-1998.	-2931.	9405.	-1985.	-3171.	7935.	
+MONEY BORROWED	2338.	2886.	0	2632.	2759.	0	1998.	2931.	0	1985.	3171.	0	
-PAYMENT ON LOAN	0	0	1965.	0	0	5982.	0	0	7527.	0	0	6132.	
-INTEREST PAID AT .12	0	0	4333.	0	0	1907.	0	0	1878.	0	0	1803.	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

57637.00LOAN OUT-JAN 1

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	59975.	62862.	60897.	63529.	66288	60306	62304.	65235	57708.	59693.	62865	56732.

2528.00ACCRUED INTEREST-JAN 1

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCRUED INTEREST AT 12	3104.	3704.	0	609.	1244.	0	603.	1226.	0	577.	1174.	0

60165.00 ACCRUED TOTAL DEBT-JAN 1

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED TOTAL DEBT	63080.	66566.	60897.	64138.	67532.	60306	62907.	66461.	57708.	60270.	64039.	56732.

4 LITTER-32 SOWS NEW POLE BUILDING FOR FARROWING AND NURSERY.
NEW POLE BUILDING FOR GESTATION. NEW OPEN FRONT SHED FOR FINISHING.

TABLE 106 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR FARROW-TO-FINISH, SYSTEM H IN THIRD YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	12045.	0	0	0	0	0	0	0	0	0	12045.
SLAUGHTER HOGS	1.0	0	0	0	0	0	12229.	0	0	0	0	0	0	12229.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	12388.	0	0	0	12388.
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	0	0	0	0	11849.	11849.
GILT N.B.	1.0	139.	0	0	139.	0	0	139.	0	0	139.	0	0	557.
SOW N.B.	1.0	162.	0	0	162.	0	0	162.	0	0	162.	0	0	648.
SOW CULL	1.0	0	0	488.	0	0	488.	0	0	488.	0	0	488.	1954.
BOAR	1.0	0	0	0	527.	0	0	0	0	0	0	0	0	527.
TOTAL		301.	0	12533.	828.	0	12717.	301.	0	12876.	301.	0	12337.	52195.
CASH EXPENSES														
CORN	1.0	1311.	1628.	2273.	1030.	1584.	1807.	1072.	1597.	1866.	1094.	1739.	2177.	19179.
SOYBEAN MEAL	1.0	677.	758.	1024.	529.	751.	813.	563.	763.	834.	558.	809.	992.	9071.
MINERALS	1.0	44.	56.	71.	34.	55.	57.	36.	55.	58.	37.	60.	68.	630.
OATS	1.0	5.	0	0	4.	0.	0	5.	0	0	4.	0	0.	18.
WHEAT BRAN	1.0	19.	10.	0	16.	13.	0	17.	12.	0	17.	0	12.	115.
SUGAR	1.0	6.	0	0	5.	0.	0	6.	0	0	5.	0.	0	22.
GRIND & MIX	1.0	68.	83.	115.	54.	81.	91.	56.	82.	94.	62.	89.	110.	986.
VET & MED	1.0	65.	58.	44.	65.	58.	44.	65.	58.	65.	65.	58.	44.	689.
INS. AND TAXES	1.0	0	0	0	0	0	0	328.	0	0	0	0	0	328.
MKTG & HAULING	1.0	9.	0	309.	27.	0	309.	9.	0	309.	9.	0	309.	1290.
LP GAS	1.0	213.	153.	80.	14.	0	0	0	0	0	0	53.	153.	664.
ELECTRICITY	1.0	34.	181.	34.	34.	181.	34.	34.	181.	34.	34.	181.	34.	996.
MISCL EXPENSE	1.0	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	33.	396.
YOUNG BOAR	1.0	0	0	0	1350.	0	0	0	0	0	0	0	0	1350.
TRACTOR(FUEL,LUB,REP)		0	70.	381.	0	70.	381.	0	70.	381.	0	70.	381.	1804.
MACHINE(FUEL,LUB,REP)		0	5.	13.	0	5.	13.	0	5.	13.	0	5.	13.	74.
EQUIP. (FUEL,LUB,REP)		76.	76.	76.	76.	76.	76.	76.	76.	76.	76.	76.	76.	907.
TOTAL		2558.	3110.	4452.	3272.	2907.	3659.	2299.	2931.	3763.	1994.	3171.	4403.	38519.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE		-2257.	-3110.	8081.	-2444.	-2907.	9058.	-1998.	-2931.	9113.	-1693.	-3171.	7935.	13676.
=CURRENT CASH BALANCE		-2257.	-3110.	8081.	-2444.	-2907.	9058.	-1998.	-2931.	9113.	-1693.	-3171.	7935.	
+MONEY BORROWED		2257.	3110.	0	2444.	2907.	0	1998.	2931.	0	1693.	3171.	0	
-PAYMENT ON LOAN		0	0	6303.	0	0	7306.	0	0	7428.	0	0	6329.	
-INTEREST PAID AT .12		0	0	1778.	0	0	1752.	0	0	1684.	0	0	1606.	
=CASH BALANCE ENDING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
56732.00LOAN OUT-JAN 1												
ACCUMULATED BORROWING	58989.	62099.	55796.	58240.	61147.	53841.	55839.	58770.	51341.	53034.	56205.	49876.
-UACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	567.	1157.	0	558.	1140.	0	538.	1097.	0	513.	1044.	0
56732.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	59556.	63256.	55796.	58798.	62288.	53841.	56377.	59866.	51341.	53547.	57249.	49876.

4 LITTER-32 SOWS NEW POLE BUILDING FOR FARROWING AND NURSERY.
NEW POLE BUILDING FOR GESTATION. NEW OPEN FRONT SHED FOR FINISHING.

APPENDIX F

Finishing Systems - Cash Flow

TABLE 107 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR HOG FINISHING, SYSTEM A IN FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	16788.	0	0	0	0	16788.
TOTAL		0	0	0	0	0	0	0	16788.	0	0	0	0	16788.
CASH EXPENSES														
CORN	1.0	0	0	0	262.	739.	961.	1187.	1034.	0	0	0	0	4182.
SOYBEAN MEAL	1.0	0	0	0	117.	331.	268.	238.	207.	0	0	0	0	1161.
MINERALS	1.0	0	0	0	8.	21.	27.	33.	29.	0	0	0	0	118.
GRIND & MIX	1.0	0	0	0	13.	37.	46.	55.	48.	0	0	0	0	199.
VET & MED.	1.0	0	0	0	34.	15.	15.	10.	0	0	0	0	0	74.
INS. AND TAXES	1.0	0	0	0	0	0	0	85.	0	0	0	0	0	85.
HAULING & MKTG.	1.0	0	0	0	0	0	0	0	374.	0	0	0	0	374.
MISCL EXPENSE	1.0	0	0	0	10.	10.	10.	10.	0	0	0	0	0	40.
FEEDER PIGS	1.0	0	0	0	8190.	0	0	0	0	0	0	0	0	8190.
HAULING IN	1.0	0	0	0	42.	0	0	0	0	0	0	0	0	42.
FENCE	1.0	0	0	0	2210.	0	0	0	0	0	0	0	0	2210.
SUN SHADES	1.0	0	0	1170.	0	0	0	0	0	0	0	0	0	1170.
FEEDERS-WATERERS	1.0	0	0	950.	0	0	0	0	0	0	0	0	0	950.
LOAD CHUTE	1.0	0	0	0	0	0	0	300.	0	0	0	0	0	300.
EQUIP-LUB&REPAIR	1.0	0	0	6.	13.	13.	13.	14.	14.	14.	14.	14.	14.	129.
TOTAL		0	0	2126.	10899.	1166.	1340.	1932.	1706.	14.	14.	14.	14.	19224.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	-2126.	-10899.	-1166.	-1340.	-1932.	15082.	-14.	-14.	-14.	-14.	-2436.
=CURRENT CASH BALANCE	0	0	-2126.	-10899.	-1166.	-1340.	-1932.	15082.	-14.	-14.	-14.	-14.	
+MONEY BORROWED	0	0	2126.	10899.	1166.	1340.	1932.	0	14.	14.	14.	14.	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	14459.	0	0	0	0	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	623.	0	0	0	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1												
ACCUMULATED BORROWING	0	0	2126.	13025.	14191.	15531.	17462.	3003.	3017.	3031.	3045.	3059.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	0	0	0	21.	152.	293.	449.	0	30.	60.	91.	121.
0 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	0	0	2126.	13047.	14342.	15824.	17911.	3003.	3048.	3092.	3136.	3180.

SEVEN ACRES PASTURE (20 PIGS/ACRE FOR 140 HOG CAPACITY).
FEED: 14 PERCENT GROWER RATION - 11 PERCENT FINISHER RATION.

TABLE 108 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR HOG FINISHING, SYSTEM A IN SECOND YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	16788.	0	0	0	0	16788.
TOTAL		0	0	0	0	0	0	0	16788.	0	0	0	0	16788.
CASH EXPENSES														
CORN	1.0	0	0	0	262.	739.	961.	1187.	1034.	0	0	0	0	4182.
SOYBEAN MEAL	1.0	0	0	0	117.	331.	268.	238.	207.	0	0	0	0	1161.
MINERALS	1.0	0	0	0	8.	21.	27.	33.	29.	0	0	0	0	118.
GRIND & MIX	1.0	0	0	0	13.	37.	46.	55.	48.	0	0	0	0	199.
VET & MED.	1.0	0	0	0	34.	15.	15.	10.	0	0	0	0	0	74.
INS. AND TAXES	1.0	0	0	0	0	0	0	85.	0	0	0	0	0	85.
HAULING & MKTG.	1.0	0	0	0	0	0	0	0	374.	0	0	0	0	374.
MISCL EXPENSE	1.0	0	0	0	10.	10.	10.	10.	0	0	0	0	0	40.
FEEDER PIGS	1.0	0	0	0	8190.	0	0	0	0	0	0	0	0	8190.
HAULING IN	1.0	0	0	0	42.	0	0	0	0	0	0	0	0	42.
EQUIP. (FUEL,LUB,REP)		14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	167.
TOTAL		0	0	0	8710.	1186.	1360.	1651.	1725.	0	0	0	0	14632.
FLOW OF FUNDS SUMMARY						DOLLARS								
CASH BALANCE BEGINING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE		0	0	0	-8710.	-1186.	-1360.	-1651.	15063.	0	0	0	0	2156.
=CURRENT CASH BALANCE		0	0	0	-8710.	-1186.	-1360.	-1651.	15063.	0	0	0	0	
+MONEY BORROWED		0	0	0	8710.	1186.	1360.	1651.	0	0	0	0	0	
-PAYMENT ON LOAN		0	0	0	0	0	0	0	14269.	0	0	0	0	
-INTEREST PAID AT .12		0	0	0	0	0	0	0	793.	0	0	0	0	
=CASH BALANCE ENDING		-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
CURRENT LOAN SUMMARY						DOLLARS								
3059.00LOAN OUT-JAN 1														
ACCUMULATED BORROWING		3059.	3059.	3059.	11769.	12954.	14315.	15965.	1696.	1696.	1696.	1696.	1696.	
121.00ACCRUED INTEREST-JAN 1														
ACCRUED INTEREST AT .12		152.	182.	213.	243.	361.	491.	634.	0	17.	34.	51.	68.	
3180.00 ACCURED TOTAL DEBT-JAN 1														
ACCUMULATED TOTAL DEBT		3211.	3241.	3272.	12012.	13316.	14805.	16599.	1696.	1713.	1730.	1747.	1764.	

SEVEN ACRES PASTURE (20 PIGS/ACRE FOR 140 HOG CAPACITY).
FEED: 14 PERCENT GROWER RATION - 11 PERCENT FINISHER RATION.

TABLE 109 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR HOG FINISHING, SYSTEM B IN FIRST YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	16788.	0	0	0	0	16788.
TOTAL		0	0	0	0	0	0	0	16788.	0	0	0	0	16788.
CASH EXPENSES														
CORN	1.0	0	0	0	286.	805.	1082.	1232.	676.	0	0	0	0	4080.
SOYBEAN MEAL	1.0	0	0	0	164.	460.	412.	412.	226.	0	0	0	0	1673.
MINERALS	1.0	0	0	0	8.	23.	31.	36.	20.	0	0	0	0	119.
GRIND & MIX	1.0	0	0	0	15.	42.	53.	60.	33.	0	0	0	0	203.
VET & MED.	1.0	0	0	0	54.	25.	25.	10.	0	0	0	0	0	114.
INS. AND TAXES	1.0	0	0	0	0	0	0	85.	0	0	0	0	0	85.
HAULING & MKTG.	1.0	0	0	0	0	0	0	0	374.	0	0	0	0	374.
MISCL EXPENSE	1.0	0	0	0	10.	10.	10.	10.	0	0	0	0	0	40.
FEEDER PIGS	1.0	0	0	0	8190.	0	0	0	0	0	0	0	0	8190.
HAULING IN	1.0	0	0	0	42.	0	0	0	0	0	0	0	0	42.
FENCE	1.0	0	0	0	1207.	0	0	0	0	0	0	0	0	1207.
SUN SHADES	1.0	0	0	1170.	0	0	0	0	0	0	0	0	0	1170.
FEEDERS-WATERERS	1.0	0	0	950.	0	0	0	0	0	0	0	0	0	950.
LOAD CHUTE	1.0	0	0	0	0	0	0	300.	0	0	0	0	0	300.
EQUIP-LUB&REPAIR	1.0	0	0	10.	16.	16.	16.	17.	17.	17.	17.	17.	17.	160.
TOTAL		0	0	2130.	9992.	1381.	1629.	2162.	1345.	17.	17.	17.	17.	18707.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	-2130.	-9992.	-1381.	-1629.	-2162.	15443.	-17.	-17.	-17.	-17.	-1919.
=CURRENT CASH BALANCE	0	0	-2130.	-9992.	-1381.	-1629.	-2162.	15443.	-17.	-17.	-17.	-17.	
+MONEY BORROWED	0	0	2130.	9992.	1381.	1629.	2162.	0	17.	17.	17.	17.	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	14841.	0	0	0	0	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	602.	0	0	0	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
-0LOAN OUT-JAN 1												
ACCUMULATED BORROWING	0	0	2130.	12122.	13502.	15132.	17293.	2452.	2469.	2486.	2503.	2520.
-0ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	0	0	0	21.	143.	278.	429.	0	25.	49.	74.	99.
0 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	0	0	2130.	12143.	13645.	15409.	17722.	2452.	2494.	2536.	2577.	2619.

SEVEN ACRES PASTURE (20 PIGS/ACRE FOR 140 HOG CAPACITY).
FEED: 14 PERCENT GROWER RATION - 11 PERCENT FINISHER RATION.

TABLE 110 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR HOG FINISHING, SYSTEM B IN SECOND YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	16788.	0	0	0	0	16788.
TOTAL		0	0	0	0	0	0	0	16788.	0	0	0	0	16788.
CASH EXPENSES														
CORN	1.0	0	0	0	286.	805.	1082.	1232.	676.	0	0	0	0	4080.
SOYBEAN MEAL	1.0	0	0	0	164.	460.	412.	412.	226.	0	0	0	0	1673.
MINERALS	1.0	0	0	0	8.	23.	31.	36.	20.	0	0	0	0	119.
GRIND & MIX	1.0	0	0	0	15.	42.	53.	60.	33.	0	0	0	0	203.
VET & MED.	1.0	0	0	0	54.	25.	25.	10.	0	0	0	0	0	114.
INS. AND TAXES	1.0	0	0	0	0	0	0	85.	0	0	0	0	0	85.
HAULING & MKTG.	1.0	0	0	0	0	0	0	0	374.	0	0	0	0	374.
MISCL EXPENSE	1.0	0	0	0	10.	10.	10.	10.	0	0	0	0	0	40.
FEEDER PIGS	1.0	0	0	0	8190.	0	0	0	0	0	0	0	0	8190.
HAULING IN	1.0	0	0	0	42.	0	0	0	0	0	0	0	0	42.
EQUIP. (FUEL,LUB,REP)		17.	17.	17.	17.	17.	17.	17.	17.	17.	17.	17.	17.	200.
TOTAL		0	0	0	8809.	1405.	1653.	1885.	1368.	0	0	0	0	15120.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	0	0	0	-8809.	-1405.	-1653.	-1885.	15420.	0	0	0	0	1668.
=CURRENT CASH BALANCE	0	0	0	-8809.	-1405.	-1653.	-1885.	15420.	0	0	0	0	
+MONEY BORROWED	0	0	0	8809.	1405.	1653.	1885.	0	0	0	0	0	
-PAYMENT ON LOAN	0	0	0	0	0	0	0	14673.	0	0	0	0	
-INTEREST PAID AT .12	0	0	0	0	0	0	0	747.	0	0	0	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

2520.00LOAN OUT-JAN 1

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ACCUMULATED BORROWING	2520.	2520.	2520.	11329.	12733.	14387.	16271.	1599.	1599.	1599.	1599.	1599.
39.00ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	124.	149.	175.	200.	313.	440.	584.	0	16.	32.	48.	64.
2619.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	2644.	2669.	2695.	11528.	13046.	14827.	16856.	1599.	1615.	1631.	1647.	1663.

TABLE 111 MONTHLY ENTERPRISE CASH FLOW PROJECTION FOR HOG FINISHING, SYSTEM C IN SECOND YEAR OF OPERATION.

ITEM	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH RECEIPTS														
SLAUGHTER HOGS	1.0	0	0	0	0	0	0	0	16788.	0	0	0	0	16788.
SLAUGHTER HOGS	1.0	0	16414.	0	0	0	0	0	0	0	0	0	0	16414.
TOTAL		0	16414.	0	0	0	0	0	16788.	0	0	0	0	33202.
CASH EXPENSES														
CORN	1.0	1232.	636.	0	286.	805.	1082.	1232.	676.	0	311.	779.	1122.	8160.
SOYBEAN MEAL	1.0	412.	213.	0	164.	460.	412.	412.	226.	0	178.	445.	425.	3347.
MINERALS	1.0	36.	19.	0	8.	23.	31.	36.	20.	0	9.	23.	33.	237.
GRIND & MIX	1.0	60.	31.	0	15.	42.	53.	60.	33.	0	16.	41.	55.	405.
VET & MED.	1.0	10.	0	0	54.	25.	25.	10.	0	0	54.	25.	25.	228.
ELECTRICITY	1.0	4.	4.	3.	0	1.	4.	4.	3.	0	0	1.	4.	27.
INS. AND TAXES	1.0	0	0	0	0	0	0	145.	0	0	0	0	0	145.
HAULING & MKTG.	1.0	0	374.	0	0	0	0	0	374.	0	0	0	0	748.
MISCL EXPENSE	1.0	30.	10.	0	10.	0	10.	10.	10.	0	30.	20.	30.	160.
FEEDER PIGS	1.0	0	0	0	8190.	0	0	0	0	0	0	0	0	8190.
FEEDER PIGS	1.0	0	0	0	0	0	0	0	0	0	6573.	0	0	6573.
HAULING IN	1.0	0	0	0	42.	0	0	0	0	0	42.	0	0	84.
TRACTOR(FUEL,LUB,REP)		0	87.	0	0	0	0	0	87.	0	0	0	87.	262.
MACHINE(FUEL,LUB,REP)		0	6.	0	0	0	0	0	6.	0	0	0	6.	19.
EQUIP. (FUEL,LUB,REP)		16.	16.	16.	16.	16.	16.	16.	16.	16.	16.	16.	16.	188.
TOTAL		1801.	1398.	20.	8786.	1373.	1634.	1926.	1452.	0	7231.	1350.	1805.	28774.

FLOW OF FUNDS SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CASH BALANCE BEGINING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
+CASH DIFFERENCE	-1801.	15017.	-20.	-8786.	-1373.	-1634.	-1926.	15336.	0	-7231.	-1350.	-1805.	4428.
=CURRENT CASH BALANCE	-1801.	15017.	-20.	-8786.	-1373.	-1634.	-1926.	15336.	0	-7231.	-1350.	-1805.	
+MONEY BORROWED	1801.	0	20.	8786.	1373.	1634.	1926.	0	0	7231.	1350.	1805.	
-PAYMENT ON LOAN	0	14094.	0	0	0	0	0	14466.	0	0	0	0	
-INTEREST PAID AT .12	0	922.	0	0	0	0	0	870.	0	0	0	0	
=CASH BALANCE ENDING	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	

CURRENT LOAN SUMMARY — DOLLARS

ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
19370.00LOAN OUT-JAN 1												
ACCUMULATED BORROWING	21171.	7076.	7096.	15882.	17255.	18889.	20815.	6349.	6349.	13580.	14930.	16735.
517.00ACCRUED INTEREST-JAN 1												
ACCRUED INTEREST AT .12	711.	0	71.	142.	301.	473.	662.	0	63.	127.	263.	412.
19887.00 ACCURED TOTAL DEBT-JAN 1												
ACCUMULATED TOTAL DEBT	21881.	7076.	7167.	16023.	17555.	19362.	21477.	6349.	6412.	13707.	15193.	17147.

REMODELED BUILDING, WITH SMALL OUTSIDE LOT FOR SUMMER FINISHING.
CAPACITY FOR 140 HOGS IN SUMMER AND WINTER.

APPENDIX G

Waste Production and

Pollution Levels for Various Facilities

Table 112. Waste Production.

Component	Volume (ft^3/yr)	Broadcast N	Broadcast P_2O_5 [2]	Broadcast K_2O [3]	Broadcast and cultivation/knifing N	Broadcast and cultivation/knifing P_2O_5	Broadcast and cultivation/knifing K_2O	Irrigation N	Irrigation P_2O_5	Irrigation K_2O	(A) acres	Potential Level of Pollution[1] (B)	(C)	(D)
		Nutrients Available (lb/yr)												
Farrowing: 1 (1 lit/yr)	417	50	52	68	60	52	68					5	5	3
(2 lit/yr)	834	100	104	136	120	104	136					5	5	3
2	834	160	203	236	194	203	236				1.6	2	2	3
3	1,668	320	406	472	388	406	472				3.2	2	2	3
4	834	160	203	236	194	203	236				1.6	2	2	5
5	1,668	320	406	472	388	406	472				3.2	2	2	5
6	2,678	523	611	655	682	611	655	506	512	545	5.2	2	2	5
7	1,668	320	406	472	388	406	472				3.2	2	2	3
8	2,678	523	611	655	682	611	655	506	512	542	5.2	2	2	5
9	3,648	722	844	904	942	844	904	699	707	752	7.2	2	2	5
10	5,472							250	260	926	2.5	2	2	3
Gestation: 1 (1 lit/yr)	1,479	507	534	700	611	534	700					5	5	3
(2 lit/yr)	1,395	447	470	616	600	470	616					5	5	3
2(1 lit/yr)	-----same as gestation 1-----				600	522	685				5.1	4	5	4
(2 lit/yr)	-----same as gestation 1-----				539	470	616				4.5	4	5	4
3(1 lit/yr)	-----same as gestation 1-----				-----same as gestation 2						5.1	4	5	4
(2 lit/yr)	-----same as gestation 1-----				-----same as gestation 2						4.5	4	5	4
4	2,790	894	940	1,232	1,078	940	1,232				8.9	4	5	4
5	4,183	1,932	2,461	2,852	2,346	2,461	2,852				19.3	2	2	3
6	4,183	2,185	2,553	2,737	2,852	2,553	2,737	2,116	2,139	2,277	21.9	2	2	5
7	5,577	2,907	3,397	3,641	3,794	3,397	3,641	2,813	2,846	3,029	29.1	2	2	5
8	8,365							1,032	1,075	3,827	10.3	2	2	3
Finishing: 1	2,964	423	445	584	511	445	584					5	5	2
2	2,964	613	781	905	745	781	905				6.1	2	2	3
3(4 lit/yr)	11,127	1,585	1,665	2,184	1,911	1,665	2,185				15.8	4	5	4
(6 lit/yr)	16,963	2,413	2,538	3,328	2,912	2,538	3,328				24.1	4	5	4
4(4 lit/yr)	11,127	2,594	3,030	3,249	3,385	3,030	3,249	2,512	2,539	2,703	25.9	2	2	5
(6 lit/yr)	16,963	3,952	4,618	4,950	5,158	4,618	4,950				39.5	2	2	5
5(8 lit/yr)	22,617	5,263	6,149	6,593	6,870	6,149	6,593	5,097	5,152	5,485	52.6	2	2	3
(12 lit/yr)	33,927							1,997	2,080	7,405	20.0	2	2	3

(A) Land required for disposal- broadcast
(B) Quantity of Runoff
(C) Quality of Runoff
(D) Odor

[1] R.K. White and D.L. Forester, Evaluation and Economic Analysis of Livestock Waste Management Systems, EPA-600/2-78-102. p.119-125. These values assume no runoff control, scale: 1 (No Pollution) 2 3 4 5 (Severe Pollution)

[2] To convert P_2O_5 to P, multiply by .44

[3] To convert K_2O to K, multiply by .83