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An economic appraisal of hog production in the Brown Loam Area of Mississippi

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An Economic Appraisal of

HOG PRODUCTION

In The Brown Loam Area of Mississippi

MISSISSIPPI STATE COLLEGE

AGRICULTURAL EXPERIMENT STATION

CLAY LYLE, Director

STATE COLLEGE

MISSISSIPPI

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This is one of a series of studies dealing with the economics of livestock production on Mississippi farms. Other studies include broilers, laying flocks, milk production, beef production, and sheep production.

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AN ECONOMIC APPRAISAL OF HOG PRODUCTION IN THE BROWN LOAM AREA OF MISSISSIPPI

By D. W. PARVIN and J. D. JONES

The Problem. Although hogs rank fourth among livestock as a source of income in Mississippi,¹ pork production is a major enterprise on many farms. In 1952, Mississippi producers received 22 million dollars from the sale of hogs. Relatively low investment and labor requirements make the pork enterprise attractive on many farms where soils are favorable for production of relatively large amounts of corn compared to pasture and forage crops.

It is expected that production of corn in Mississippi will increase because per acre yields on much land used for corn are below those that can be profitably produced by the use of practices developed by Experiment Station agronomists; also, the total acres of corn will likely increase as a result of the Government program which restricts cotton acreage. A continuation of economic activity at not much below the present level and an increase in population should result in the demand for meat continuing to be relatively high. Therefore, sale of hogs should continue to be a major source of income on many Mississippi farms. Relatively inexperienced hog producers, and those contemplating adding a hog enterprise to their present farming system, need basic information on which to base their decisions. This study was designed to provide such information, particularly the following:

1. Resources used in hog production and investment required.
2. Costs and returns.
3. Present management practices and ways by which hog production can be made more profitable.

Method of study. Yazoo County was the area selected for study because of the concentration of commercial producers. A list of hog producers was secured from the Agricultural Extension Service and supplemented by agricultural workers in the county. Data for the study were obtained by personal interviews with producers. Insofar as possible, all commercial producers were interviewed.² The period covered in this study was from July 1, 1950 to June 30, 1952. Separate interviews were made during the summer months in 1951 and 1952, respectively. Detailed information with regard to all phases of the hog enterprise was obtained from 37 producers. Methods used in calculating investment, costs and returns are given in Appendix I.

System of Farming

Land use. Farms producing hogs commercially were about three times as large as the average operating unit in the area studied, 622 acres compared to 213 acres³ (Appendix Table 1). On the farms studied, 80 percent of the land operated was owned and 20 percent rented. Of the acreage operated, 28 percent was classified as cropland, 14 percent as open permanent pasture, 46 percent as woodland pasture and 10 percent as woodland not pastured.

Cropping pattern. Forty-four percent of the cropland was planted to corn and 26 percent to cotton (Appendix Table 2). Soybeans, oats and hay were the other

²Producers selling 10 or more hogs annually. Producers who were not able to give complete information, those not producing hogs commercially each of the years studied and those from whom interviews were not obtained after three visits to the farm were dropped from the study.

¹The Farm Income Situation, July-August, 1953, United States Department of Agriculture.

³White owner operators only; United States Census of Agriculture, Mississippi, 1950.

important crops grown. Six percent of the cropland was idle.

Livestock system. The producers included in the study had been in commercial hog production an average of 11 years. Commercial livestock production was limited to production of hogs on 54 percent of the farms. Beef cattle were produced commercially on 43 percent of the farms studied, sheep on 8 percent, goats on 5 percent, and dairy cattle on 3 percent (Appendix Table 3).

There was an average of 8.4 sows per farm and 74 hogs were sold annually per farm (Appendix Table 11). In addition, for all farms studied, an average of 20 beef animals were sold annually, 3 cows milked and 42 laying hens kept per farm.

Farm labor supply. Including the operator, there was an average of 3.6 persons in the family labor force per farm (Appendix Table 4). There were the same number of males and females and about 60 percent of the family labor force was between the ages of 18 and 60. Five of the 37 operators were under 30 years of age and 6 over 60 years of age (Appendix Table 5).

Farm power. Tractors were used as a source of power on 34 of the 37 farms. There was an average of 1.5 tractors per farm for those farms having tractors. Eighty-two percent of the tractors were classified as two-row tractors.

Farm buildings. The general barn was used in connection with the hog enterprise on 29 of the 37 farms studied (Appendix Table 8). A general hog barn was used on 6 farms. Cribs or grain storage facilities, separate from the general barn or general hog barn, were used on 14 farms. Individual farrowing houses were used on two farms and a central farrowing house on four farms.

Management Practices

Feeding practices. Practically all of the feed consumed by the hogs (96 percent) was produced on the farm (Appendix Table 17). Seventy-seven percent of

the average hog ration was corn, 13 percent soybeans, and 6 percent oats. About 57 percent of the corn, 99 percent of the soybeans, and 93 percent of the oats were hogged off. When corn and/or soybeans were hogged off, the animals were usually turned in the field when corn was in the early dent stage and soybeans were fully developed but still containing some greenness. The oats hogged down were those oats that were allowed to mature on fields that had also been used for temporary winter grazing. Purchased protein supplement (cottonseed meal, soybean meal, tankage, fish meal and commercial supplement) accounted for 3 percent of the total ration. All high protein feed (soybeans and purchased protein supplement) accounted for 16 percent of the total ration. A total of 498 pounds of feed was consumed for each 100 pounds of pork produced.

Grazing practices. The acreage of pasture used by the hog enterprise was relatively large. A total of 1.6 acres of permanent pasture, 2.0 acres of wood land pasture and .7 acres of temporary winter pasture was used per sow and litter or litters (Appendix Table 18).

Most of the open permanent pasture used by hogs was unimproved. Approximately one-fifth of the acreage had been fertilized and about one-fifth had been seeded. Nitrogen and phosphate were the fertilizers commonly used. White Dutch clover, fescue, red clover, and Dallis grass were the pasture plants most often seeded.

Temporary winter pasture grazed by hogs represented a relatively small percentage of the total acres used; however, these pastures received much more attention than permanent pastures. Most of the temporary winter pasture was broken, seeded and fertilized. Nitrogen, phosphate and potash were the fertilizer elements used most often. Oats alone or in combination with a legume such as red

clover was the winter pasture most commonly used. In addition to the grazing obtained, oats were allowed to mature on most farms having temporary winter pastures and were harvested or hogged off. About 150 bushels of oats were harvested or hogged off per farm from the 5.7 acres of temporary winter pasture used by the hog enterprise.

Water for the hog enterprise was supplied by ponds, creeks, wells, and springs (Appendix Table 20). Ponds were used on 23 farms, creeks on 11 farms, wells on 2 farms and springs on 1 farm. Ten of the 37 farms had two sources of water.

Breeding practices. Ninety-five percent of all producers used boars that were purebred and 46 percent used registered boars. Only 10 percent of the farms studied had registered sows and gilts. There was an average of nine sows per boar.

Pigs were farrowed each month in the year, with some concentration in the spring and fall. Thirty-one percent of the pigs were farrowed in March, April, and May and 38 percent in August, September, and October; 31 percent were farrowed in the other six months (Appendix Table 12). On most farms, two litters per sow were farrowed each year. An average of 4.3 pigs were raised per litter.

Buying and selling hogs. The annual production of pork averaged 13,793 pounds per farm or 1,632 pounds per sow (Appendix Table 16). Hogs other than sows, boars, and pigs, accounted for 92 percent of the pounds of pork sold (Appendix Table 15). Hogs other than sows, boars, and pigs, were sold at an average weight of 190 pounds. Some hogs were sold each month in the year; however, there was a concentration of sales in the fall and winter months. Forty-six percent of the hogs, other than sows, boars and pigs, were sold in the fall months of September, October, and November; an additional 29 percent was sold in December,

January, and February (Appendix Table 12). An average of 18 feeder hogs and 7 feeder pigs were purchased annually per farm.⁴ Purchases of feeder hogs and feeder pigs were concentrated in the late summer and early fall, although some were purchased in every month except May.

Health practices. Hogs were vaccinated for cholera on 86 percent of the farms, vaccinated for septicemia on 19 percent of the farms, treated for internal parasites on 68 percent of the farms and treated for external parasites on 89 percent of the farms.

Approximately 5 percent of the sows and bred gilts aborted. Death losses for sows amounted to about 6 percent of the average number on hand. Death losses for pigs averaged 19.3 percent of the total number born and purchased. Death losses for hogs, other than sows, boars, and pigs, amounted to 6.6 percent of the number produced.⁵

Of the total number of pigs dying, sows killed 65 percent; freezing, starving and drowning, 5 percent; parasites and diseases, 14 percent; unknown causes, 14 percent; and other causes, 2 percent. Of the total number of hogs (other than sows, boars, and pigs) dying, parasites and diseases killed 78 percent, unknown causes, 17 percent, and other causes, 5 percent. Perhaps parasites and diseases accounted for some of the deaths, the cause of which was listed as unknown. *Actinomyces necrophorus*, commonly called "Necro," accounted for about one-half of the deaths caused by parasites and diseases. Cholera, screwworms and septicemia accounted for practically all of the remaining deaths due to parasites and

⁴Hogs purchased were classified as feeder hogs if they weighed 50 pounds or more and feeder pigs if they weighed less than 50 pounds.

⁵Hogs sold plus hogs killed for home use plus increase in hog numbers (change in inventory) divided into hogs dying.

diseases. In addition to the number of animals lost, parasites and diseases reduced the efficiency with which gains were made on animals that recovered.

Labor utilization. Labor used for the hog enterprise averaged 373 hours per farm, 44 hours per sow, and 2.7 hours per 100 pounds of pork produced (Appendix Table 6). There was relatively little variation in the amount of labor used on the hog enterprise during the different seasons of the years.

Investment, Cost and Returns

Investment. Investment in the hog enterprise includes investment in the breeding herd, pasture land (including fences) and buildings. Investment in these three items averaged \$1,749 per farm, \$207 per sow and \$12.68 per 100 pounds of pork produced (Table 1).

The investment in breeding animals amounted to \$415 per farm or 24 percent of the total investment in the hog enterprise. Investment in breeding animals averaged \$49 per sow, of which \$44 was the value of the sow; the remaining \$5

was the sow's share of the investment in boars.

Almost 60 percent of the total investment in the hog enterprise was in pasture land. This amounted to \$1,019 per farm and \$121.00 per sow. Open permanent pasture accounted for about two-thirds of the investment in pasture land.

Buildings used by the hog enterprise accounted for 18 percent of the total investment in the enterprise. The total investment in buildings averaged \$315 per farm and \$37 per sow. The portion of the general barn used by or for the hog enterprise accounted for more than one-half of the investment in buildings.

Costs. Costs as calculated in this study included charges for feed, pasture, labor, buildings, marketing, interest on investment in sows and boars and miscellaneous items. A charge for interest on investment was included as a part of the cost of pastures and buildings. The annual cost of the hog enterprise averaged \$2,560 per farm, \$303 per sow and \$18.56 per 100 pounds of pork produced (Table 2).

Table 1. Investment in the hog enterprise, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Per farm	Per sow	Per 100 pounds of pork produced
Dollars			
Breeding herd:			
Sows -	373	44	2.70
Boars -	42	5	.30
Total -	415	49	3.00
Pasture land :			
Open permanent	673	80	4.88
Woodland -	86	10	.62
Temporary winter	260	31	1.89
Total -	1,019	121	7.39
Buildings:			
General barn	181	21	1.31
General hog barn	38	5	.28
Cribs and other grain storage	83	10	.60
Central farrowing house	12	1	.09
Other -	1	¹	.01
Total -	315	37	2.29
Total investment	1,749	207	12.68

¹Less than \$0.50.

Table 2. Annual cost of the hog enterprise, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Per farm	Per sow	Per 100 pounds of pork produced
		Dollars	
Feed - _____	1,817	215	13.17
Pasture - _____	275	33	2.00
Labor - _____	152	18	1.10
Building - _____	60	7	.43
Marketing - _____	62	7	.45
Interest on sows and boars _____	21	2	.15
Miscellaneous - _____	173	21	1.26
Total - _____	2,560	303	18.56

The cost of purchased feed, plus the value of home-grown feed accounted for 71 percent of the cost of the hog enterprise. Feed cost averaged \$1,817 per farm, \$215 per sow and \$13.17 per 100 pounds of pork produced. The value of corn fed constituted 68 percent of the total cost of feed; soybeans accounted for 17 percent of the balance. Purchased feed represented only 8 percent of the total cost of feed.

The annual cost of pastures used by hogs amounted to \$275 per farm, \$33 per sow and \$2.00 per 100 pounds of pork produced. This was 10.7 percent of the cost of the enterprise. Temporary winter pasture accounted for 64 percent of total pasture cost. Improved permanent pastures accounted for another 30 percent. Although the total cost of pastures was relatively high, pasture credits (the value of oat grain harvested or hogged down from temporary winter pasture) reduced the net cost of grazing to about one-half of the total cost of pastures.

The annual cost of labor used on the hog enterprise averaged \$152 per farm, \$18 per sow and \$1.10 per 100 pounds of pork produced. This was 5.9 percent of total cost.

Building cost, marketing charges and interest on investment in sows and boars were minor items of cost as compared to feed, pasture and labor. Building cost accounted for 2.3 percent of the annual

cost of the hog enterprise, marketing charges for 2.4 percent and interest on investment in sows and boars for .8 percent.

Miscellaneous cost items such as veterinary fees and medicine, fencing costs for corn and soybeans hogged down, auto expense, taxes, salt and minerals amounted to \$173 per farm, \$21 per sow and \$1.26 per 100 pounds of pork produced. These items accounted for 6.7 percent of the total cost of the enterprise.

Returns. Total annual returns averaged \$2,709 per farm, \$320 per sow and \$19.64 per 100 pounds of pork produced (Table 3). The value of animals produced accounted for 95 percent of total returns and pasture credits for 5 percent.

The difference between total returns and costs, as calculated in this study, represents the net returns to the operator for management of the enterprise. Annual returns to management averaged \$149 per farm, \$17 per sow and \$1.08 per 100 pounds of pork produced. When labor is not deducted as a cost, the difference between total returns and costs represents the returns to the operator for labor used in taking care of the enterprise and for management. Annual returns to labor and management averaged \$301 per farm, \$35 per sow, \$2.18 per 100 pounds of pork produced and \$0.81 per hour of labor used.

A part of the returns to labor and man-

Table 3. Annual returns to the hog enterprise, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Per farm	Per 100 pounds of pork produced	
		Per sow	Dollars
Value of pork produced	2,564	303	18.59
Pasture credits	145	17	1.05
Breeding fees	1	1	2
Total return	2,709	320	19.64
Less costs	2,560	303	18.56
Returns to management	149	17	1.08
Plus value of labor	152	18	1.10
Returns to labor and management ³	301	35	2.18

¹Less than \$0.50.²Less than .5 cents.³Returns to labor and management per hour of labor used averaged \$0.81.

agement was due to the higher than average corn-hog ratio that existed in Mississippi during the period studied. At that time the corn-hog ratio for Mississippi was 12.97 compared to 12.42 for the 5-year period beginning July 1947 and ending June 1952, and 10.68 for the 10-year period beginning July 1943 and ending June 1953 (Appendix Table 27). If corn had been priced at its July 1947-June 1952 level in relation to the price of pork, cost would have been increased \$51 per farm, \$6 per sow and \$0.37 per 100 pounds of pork produced; and returns to labor and management would have been reduced to \$250 per farm, \$30 per sow, \$1.81 per 100 pounds of pork produced and \$0.67 per hour of labor used. If corn had been priced at its July 1943-June 1953 level in relation to the price of pork, cost would have been increased \$262 per farm, \$31 per sow and \$1.90 per 100 pounds of pork produced; and returns to labor and management would have been reduced to \$39 per farm. \$5 per sow, \$0.28 per 100 pounds of pork produced and \$0.10 per hour of labor used.

Conclusions

This study indicates that returns to the hog enterprise in this area will be relatively low in the future if present practices

are continued and the corn-hog ratio drops to the average level that prevailed from 1943 to 1953.

High death losses, reduced efficiency for animals recovering from parasites and diseases, and uncontrolled breeding appear to be the major weaknesses in the present system of production.

The number of animals infected by parasites and diseases, and death losses can be reduced by utilizing good health and sanitation practices such as the rotation of pastures, vaccinating for cholera and treating for internal and external parasites and by taking better care of animals during the farrowing season.

The concentration of farrowing in the early spring and in the early fall will increase the efficiency of handling and of production and will permit the concentration of sales in those months when prices are normally highest.

The feeding program, from the standpoint of the amount of high protein feed in relation to the amount of grain, appeared to be satisfactory. The amount of forage available for hogs seemed to be adequate; however, the cost of forage could perhaps be reduced by improving more of the open permanent pasture and by reducing the acreage of unimproved open permanent pasture and woodland pasture.

Improvement in the quality of slaughter animals sold through the use of better boars and sows and marketing in good

conditions at about 225 pounds in weight should result in increased efficiency and higher profits.

APPENDIX I

Methods Used in Calculating Investment, Costs and Returns

A. Investment.

1. **Breeding Stock:** The average number of each class of hogs was calculated from the number on hand at the beginning and at the end of the year. Investment in the breeding stock was determined from the average number of each class of animals and producer estimates of the value of each class at the end of the year. An allowance was made on each farm for changes in weight of each class of animal.

2. **Land.** Acreage of pasture land used by hogs was calculated by prorating the total acreage, on the basis of grazing secured between hogs and other livestock. Investment in pasture land was based on the number of acres used by hogs and producer estimates of value per acre which included the value of fences. Only one-half of the value of land double-cropped was included in the investment. Woodland pasture was valued for grazing purposes only.

3. **Buildings:** It was assumed that the average investment in buildings would approximate one-half of the replacement cost. Investment in buildings was based on this assumption and on producer estimates of replacement cost. Investment in buildings used jointly with other livestock was prorated on the basis of the proportion used for the hog enterprise.

B. Costs.

1. **Feed:** Feed cost was based on producer estimates of quantities fed and the average price of each kind of feed. The price used for home-grown feeds was the price paid farmers during the harvest season.

2. **Pasture:** Pasture cost was based on

the acreage used by the hog enterprise and the annual cost per acre of pasture. In calculating pasture costs, labor cost was calculated at the prevailing wage rate of 40 cents per hour; machinery cost was based on farm management cost studies; fencing cost was based on producer estimates as to the materials, labor and equipment used and prevailing prices; and seed and fertilizer costs were calculated by using average prices for the year studied and producer information as to the quantities used.

In calculating the total cost of improved permanent pasture, the total cost of improvements made was calculated on the basis of July 1950-June 1952 prices regardless of the year in which the improvements were made. Because of wide differences in P.M.A. payment rates in different years and different counties, no deduction from total pasture cost was made for these payments.

Upon the recommendations of agronomists the annual charges for seed, fertilizer, and land preparation for improved permanent pasture were calculated as follows: (1) seed, one-tenth of the total cost; (2) land preparation except applying fertilizer, one-tenth of the total cost; and (3) cost of fertilizer and its application was calculated as follows: the total cost of nitrogen was charged to the year applied; 40 percent of the total cost of phosphate, potash and basic slag was charged to the year applied, 40 percent to the following year and 20 percent to the third year; and 20 percent of the total cost of lime was charged to each of the first four years after its application, 10 percent to the fifth year and 10 percent to the sixth year. In addition, the annual cost of improved permanent pasture in-

cluded mowing, fencing and interest on investment. Interest on investment was computed at 5 percent of the average investment in land and fences.

3. **Buildings:** Building cost included depreciation, repairs and interest on investment. The annual charge for depreciation was calculated by the straight-line method, charges for repairs were based on farm management cost studies and were calculated at 3 percent of replacement cost. Interest on investment was computed at 5 percent of one-half the replacement cost of buildings.

4. **Labor:** Labor cost was based on producer estimates of time spent on the hog enterprise and the prevailing wage rate.

5. **Marketing.** Marketing cost was based on producer information as to commission fees and other marketing cost.

6. **Interest on Investment in Sows and Boars:** Interest on investment in sows and boars was computed at 5 percent of

the average investment in those animals.

7. **Miscellaneous:** Miscellaneous cost was based on producer information as to these costs or as to the quantities of miscellaneous items used and the average price of these items.

C. Receipts.

1. **Pork Production:** Receipts from the production of pork were calculated by adding the value of animals sold, animals killed for food and inventory changes and subtracting the value of animals purchased. In calculating the value of inventory changes, increases or decreases in inventory were valued at prices per pound prevailing at the end of the year.

2. **Pasture Credits:** Pasture credits were based on producer estimates as to the quantity of hay and seeds harvested from pasture land charged to the hog enterprise and prevailing prices for these items. The average price received for these items was discounted by an amount equal to the cost of harvesting.

APPENDIX II

Table 1. Land use, 37 farms having hog enterprises, Southern Brown Loam, July 1950-June 1952.

Item	Acres per farm	Percent of acres operated
Owned	499	80.2
Rented in	123	19.8
Operated	622	100.0
Cropland	173	27.8
Open permanent pasture	88	14.2
Woodland pasture	288	46.3
Woodland	64	10.3
Farmstead and other	9	1.4

Table 2. Cropland utilization, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Acres per farm	Percent of total
Cotton	45	26.0
Corn	76	43.9
Oats	10	5.8
Hay	9	5.2
Soybeans	15	8.7
Other crops	8	4.6
Idle cropland	10	5.8
Total	173	100.0

Table 3. Other livestock enterprises of commercial importance, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Enterprise	Number of farms having	Percent of farms having	Average number of specified animals per farm having
Dairy ¹	1	2.7	10
Poultry, eggs ²	0	0	---
Beef ³	16	43.2	27
Sheep ⁴	3	8.1	15
Goats ⁵	2	5.4	52
Farms having at least one other enterprise ⁶	17	45.9	

¹Farms having 10 or more milk cows. The number of milk cows for all farms averaged 2.8.

²Farms having 200 or more hens. The number of hens for all farms averaged 42.

³Farms selling 10 or more beef animals. The number of beef animals sold by all farms averaged 19.5.

⁴Farms selling 10 or more sheep.

⁵Farms selling 10 or more goats.

⁶Of commercial importance in addition to hogs.

Table 4. Age and sex distribution of family labor force, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.¹

Age group	Number per farm		
	Males	Females	Total
Below 9	.35	.43	.78
9-12	.08	---	.08
13-17	.03	.19	.22
18-59	1.13	1.08	2.21
60-69	.14	.08	.22
70 and above	.05	---	.05
Total	1.78	1.78	3.56

¹In addition an average of 50 days of wage labor was hired annually per farm of which 95 percent was hired by the month.

Table 5. Age of operator, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Age group	Number of operators	Percent of operators
20-29	5	13.5
30-39	9	24.3
40-49	15	40.6
50-59	2	5.4
60-69	4	10.8
70-79	2	5.4
Total	37	100.0

Table 6. Hours of labor used annually for the hog enterprise per farm, per sow, and per 100 pounds of pork produced, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Month	Per farm	Per sow	Per 100 pounds of pork produced
January	32.5	3.85	.24
February	29.0	3.43	.21
March	31.0	3.67	.22
April	30.0	3.55	.22
May	31.0	3.67	.22
June	30.5	3.61	.22
July	31.5	3.73	.23
August	32.5	3.85	.24
September	30.5	3.61	.22
October	31.0	3.67	.22
November	31.0	3.67	.22
December	32.5	3.85	.24
Total	373.0	44.14	2.70

Table 7. Annual labor cost for the hog enterprise per farm, per sow and per 100 pounds of pork produced, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Hours	Cost
		Dollars
Labor per farm	373.00	152.08
Labor per sow	44.14	18.00
Labor per 100 pounds of pork produced	2.70	1.10

Table 8. Number of buildings used in connection with the hog enterprise, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Type building	Number of farms having	Percent of farms having
General barn	29	78
General hog barn	6	16
Crib or grain storage	14	38
Central farrowing house	4	11
Individual farrowing house	2	5
Total	37	100

Table 9. Replacement cost of buildings used in connection with hog enterprise, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Replacement cost per building	Replacement cost per farm	Replacement cost to hogs
		Dollars	
General barn	1,544	1,140	363
General hog barn	570	86	76
Crib or grain storage	721	244	165
Central farrowing house	220	24	24
Individual farrowing house	68	2	2
Total		1,496	630

Table 10. Annual building cost for the hog enterprise per farm, per sow, and per 100 pounds of pork produced, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Per farm	Per sow	Per 100 pounds of pork produced
		Dollars	
Depreciation	25.18	2.98	.18
Repair	18.88	2.24	.14
Interest	15.75	1.86	.11
Total	59.81	7.08	.43

Table 11. Hog numbers per farm, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Ave. of beginning inventories	Born annually	Purchased annually	Used in home annually	Sold annually	Died annually	Ave. of ending inventories
Sows ¹	8.2		.8	.1	3.5	.5	8.7
Boars .....	.9		.2		.2		.9
Pigs (under 50 pounds)	18.4	81.3	7.4		.8	17.1	23.3
Other hogs	30.7		18.4	3.1	69.1	5.0	34.0
Total	58.2	81.3	26.8	3.2	73.6	22.6	66.9

¹Includes bred gilts.

Table 12. Percentage of pigs born, pigs purchased, feeder hogs purchased and hogs sold, by months, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Month	Pigs born	Pigs purchased	Feeder hogs purchased	Hogs sold ¹
January	5	7	2	7
February	8	17	6	13
March	11	1	3	6
April	10	4	3	4
May	10	0	0	1
June	5	17	7	6
July	5	8	8	1
August	10	17	29	7
September	19	6	9	11
October	9	5	16	14
November	5	10	5	21
December	3	8	12	9
Total	100	100	100	100

¹Other than sows, boars, and pigs.

Table 13. Health practices, 37 farms having hog enterprises, Southern Brown Loam, July 1950-June 1952.

Item	Number of farms	Percent of farms
Vaccinating for cholera	32	86.5
Vaccinating for septicemia	7	18.9
Treating for internal parasites	25	67.6
Treating for external parasites	33	89.2

Table 14. Cause of death of animals, 37 farms having hog enterprises, Southern Brown Loam, July 1950-June 1950.

Item	Sows and bred gilts	Pigs	Hogs
	Percentage of total		
Killed by sow	—	65	—
Frozen, starved or drowned	4	5	—
Unknown	47	14	17
Parasites and diseases ¹	38	14	78
Other	11	2	5
Total	100	100	100

¹Primarily actinomyces necrophorus "Necro," cholera, screwworms, and septicemia.

Table 15. Pounds and value of pork sold annually per farm, 37 farms having hog enterprises, Southern Brown Loam, July 1950-June 1952.

Item	Liveweight	Value	Price per cwt.
	Pounds	Dollars	Dollars
Sows	1,013	165.75	16.36
Boars	138	16.11	11.67
Pigs (under 50 pounds)	23	5.52	24.00
Other hogs	13,138	2,451.56	18.66
Total	14,312	2,638.94	18.44

Table 16. Pounds and value of pork produced annually per farm and per sow, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Liveweight		Value	
	Per farm	Per sow	Per farm	Per sow
	Pounds	Pounds	Dollars	Dollars
Sales	14,312	1,694	2,638.94	312.29
Plus amount used in home	758	90	137.80	16.31
Plus increase in inventory	833	98	165.00	19.53
Minus purchases	2,110	250	377.76	44.70
Total production	13,793	1,632	2,563.98	303.43
Value of pork produced per 100 pounds				18.59

Table 17. Quantities and value of feed used annually by the hog enterprise per farm, per sow and per 100 pounds of pork produced, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Quantity	Cost
	Pounds	Dollars
Corn ¹	53,163	1,234.29
Soybeans ¹	8,869	306.95
Oats ¹	4,146	123.63
Cottonseed meal	23	1.02
Soybean meal	34	1.44
Tankage and fish meal	187	11.97
Commercial supplement	1,875	119.79
Wheat shorts	123	5.28
Pig and sow ration	200	10.57
Other	41	1.74
Total per farm	68,661	1,816.68
Total per sow	8,125	214.99
Total per 100 pounds of pork produced	498	13.17

¹Fifty-seven percent of the corn was hogged off, 99 percent of the soybeans, and 93 percent of the oats.

Table 18. Acres and annual cost of pastures used by the hog enterprise per farm, per sow and per 100 pounds of pork produced, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Acres	Acres	Cost	Cost
	per farm	per sow	per farm	per sow
Open permanent pasture	14.0	1.66	83.37	9.86
Woodland pasture	17.2	2.04	17.03	2.02
Temporary winter pasture	5.7	.67	174.82	20.69
Total	26.9	4.37	275.22	32.57
Total cost per 100 pounds of pork produced				2.00

Table 19. Replacement cost and annual cost of one mile of fence¹, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Permanent fence		Temporary fence	
	Quantity	Cost	Quantity	Cost
		Dollars		Dollars
Replacement cost per mile:				
Wire, woven	16 rolls	258.40	16 rolls	258.40
Wire, 4-point barb	8 rolls	78.47		
Staples	50 lbs.	6.00	20 lbs.	2.40
Posts	628	188.40	457	137.10
Labor	250 hrs.	102.50		
Hauling, (Tractor and trailer)	3 hrs.	3.15		
Total		636.92		397.90
Annual cost:				
Depreciation		31.85		29.84
Repairs		27.07		25.36
Interest		15.92		9.95
Labor			240 ² hours	98.40
Power and equipment			4 hours	4.20
Total		74.84		167.75

¹Erected in the usual manner.

²Of this total 160 hours were used in erecting the fence and 80 hours in taking the fence down.

Table 20. Sources of water for the hog enterprise, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Source	Number of farms	Percent of farms
Pond only	23	62
Creek only	2	5
Well only	2	5
Pond and creek	9	25
Pond and spring	1	3
Total	37	100

Table 21. Cost of marketing hogs, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Per farm	Per sow
	Dollars	
Commission fees	50.72	6.00
Hauling	9.45	1.12
Yardage, insurance and weighing	2.28	.27
Total	62.45	7.39
Total cost per 100 pounds of pork produced .....		.45

Table 22. Miscellaneous cost of the hog enterprise, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Per farm	Per sow
	Dollars	
Veterinary fees and medicine	60.83	7.20
Spray materials and disinfectants	2.92	.35
Taxes	13.69	1.62
Breeding fees .....	.61	.07
Feed grinding	2.37	.28
Salt	11.50	1.36
Minerals	6.95	.82
Hauling purchased feed	1.12	.13
Auto expense	16.99	2.01
Fencing cost for crops hogged down	54.70	6.47
Other	1.72	.20
Total	173.40	20.51
Total cost per 100 pounds of pork produced		1.26

Table 23. Hours required and cost per acre for performing specified operations, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Hours per acre	Total cost per acre ¹
		Dollars
Disking .....	.6	1.05
Breaking	1.4	2.30
Harrowing .....	.4	.58
Cultipacking .....	.4	.66
Fertilizing .....	.5	.94
Seeding .....	.5	.94
Cultivating .....	.6	.91
Mowing .....	.6	1.30

¹Simple average of annual cost figures.

Table 24. Seed and fertilizer prices per hundredweight, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Cost per cwt. ¹	Item	Cost per cwt. ¹
	Dollars		Dollars
Seed:		Fertilizer:	
Bahia grass	72.00	Nitrate of soda	3.34
Alfalfa	53.50	Sulfate of ammonia	3.30
Crimson clover (hardseed)	60.00	Ammonium nitrate	3.88
Crimson clover (softseed)	26.50	Phosphate (18%)	1.30
Dallis grass	75.00	Phosphate (20%)	1.45
Fescue	73.00	Potash (50%)	2.81
Lespedeza, common	38.00	Potash (60%)	3.28
Lespedeza, Kobe	16.38	Basic slag .....	.74
Lespedeza, Korean	10.12	Lime .....	.28
Oats	5.86	0-10-20	2.50
Ryegrass	13.00	6-8-8	2.40
Red clover	51.00	5-10-5	2.26
Hairy vetch	20.38	8-8-8	2.63
Ladino clover	173.50		
Lespedeza, sericea	20.50		
Wild winter peas	11.50		
White Dutch clover	94.00		

¹Simple average of annual prices.

Table 25. Feed prices per hundredweight, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Per hundredweight ¹
	Dollars
Corn (harvested)	2.58
Corn (hogged off)	2.14
Soybeans (harvested)	4.00
Soybeans (hogged off)	3.49
Oats (harvested)	3.27
Oats (hogged off)	2.94
Cottonseed meal	4.43
Soybean meal	4.50
Tankage	6.50
Wheat shorts	4.10
Corn meal	5.38
Fish meal	5.50
Pig and sow ration	5.30
Supplement	6.40
Salt (loose)	1.50
Salt (block)	1.60
Minerals (loose)	7.45
Minerals (block)	6.50

¹Simple average of annual prices.

Table 26. Prices of miscellaneous items, 37 farms having hog enterprise, Southern Brown Loam, July 1950-June 1952.

Item	Unit of measure	Cost per unit ¹
		Dollars
DDT (Powder)	4 lbs.	2.75
DDT (liquid)	gal.	3.00
Benezene Hexachloride	4 lbs.	1.68
Sulmet	pints	3.30
Automobile	miles	.06
Pickup truck	miles	.06
Truck (1.5 ton)	miles	.10
Wages	hours	.41

¹Simple average of annual prices.

Table 27. The corn-hog ratio for Mississippi for the period studied compared with the average corn-hog ratio for Mississippi for specified periods.

Period	Average price received for pork ¹	Average price received for corn ²	Corn-hog ratio
	Dollars	Dollars	
July 1943-June 1953	16.99	1.59	10.68
July 1947-June 1952	19.25	1.55	12.42
July 1950-June 1952	18.94	1.46 ³	12.97

Source: Monthly issues of Agricultural Prices, U. S. D. A.

¹Simple average of monthly prices.

²During the harvesting season (October, November, December).

³If the corn-hog ratio during the period studied had been equal to the July 1947-June 1952 corn-hog ratio, the price of corn would have been \$1.52 per bushel ($\$18.94 \div 12.42 = \1.52). If the corn-hog ratio during the period studied had been equal to July 1943-June 1953 corn-hog ratio, the price of corn would have been \$1.77 per bushel ($\$18.94 \div 10.68 = \1.77).