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2001 CROPS AND LIVESTOCK BUDGETS ESTIMATES FOR MICHIGAN

by
Barbara Dartt
Gerald D. Schwab

Department of Agricultural Economics
MICHIGAN STATE UNIVERSITY
East Lansing, MI 48824-1039

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* Includes adjustment factors for heavier placements and heifers.

Crop and Livestock Budget Estimates for Michigan, 2001

Barbara A. Dartt and Gerald D. Schwab, Extension Specialists
Department of Agricultural Economics, Michigan State University

Introduction

This report provides estimates of returns and selected cash costs for a variety of crop and livestock enterprises produced on representative Michigan farms. It is expected that the budgets will be used for three main purposes: 1) Budgeting and planning on farms that lack their own cost and performance data because the enterprise is new to the farm and/or farm records are inadequate; 2) Verification of a farm's own historical data as they use their own information to plan ahead; and 3) Benchmarking of individual production costs. Because the following budgets were generated with a "representative" Michigan producer in mind, they will be much more appropriate for uses 1) and 2).

The format of these budgets has been selected to mimic input necessary for budgets used by the FINPACK 2001® software program. FINPACK 2001® is a computerized farm planning and analysis system that can generate year end analysis, long range plans, cash flow plans and coordinated farm balance sheets and income and cash flow statements. Michigan State University Extension agents can use this program to assist producers to evaluate a farm's financial situation, explore alternatives, recommend management strategies, and to make informed loan decisions.

The FINPACK 2001® budget format contains notable distinctions from a typical variable cost enterprise budget.

- Crop and livestock budgets both report the number of "Family and regular hired labor hours." This practice is in contrast to making an assumption about the allocation of hired (paid) and contributed (unpaid) hours and adding the cost of the hired portion to the budget. *With the exception of the vegetable and organic crop budgets, no labor costs are included in "Total Selected Cash Expense."*
- In the livestock budgets, corn, hay and corn silage (potential homegrown feeds) are reported as bushels or tons fed. This practice is in contrast to assuming that all feeds are purchased and adding these costs to the budget. *No costs for corn, hay, haylage, corn silage or pasture are included in "Total Selected Cash Expense."*

Using These Budgets

Each budget was generated based on a specific set of production assumptions. These assumptions are stated, generally, in the budget subtitles and footnotes. As much additional production detail as possible has been added in budget footnotes. The choice of each "typical" production system may not be appropriate for your intended use. However, it is hoped that the assumptions for each budget are sufficiently clear so that individual practices can be added or removed to appropriately model specific circumstances. The user's access to historical records or other farm specific information will much enhance the use of these budgets in decision-making.

When utilizing these budgets to determine the profitability level of various and perhaps competing enterprises, care should be used to ensure that all costs appropriate for the users' circumstances are included. For example, if most feeds for a given livestock enterprise will be purchased rather than homegrown, the cash cost of these inputs must be included in the cash expenses for the enterprise.

Livestock farms will use less purchased fertilizer than shown in this book if manure has been applied. For planning purposes, get a soil test and adjust budgets accordingly.

Specific herbicide and pesticide names have been used in this publication to facilitate accurate budgeting. Michigan State University does not endorse the listed brand name products and is not directing producers to limit management systems to these products.

Sources of Data

The crop and livestock budgets were assembled in Winter/Spring 2000-2001 and represent an estimate of 2000-2001 conditions. Michigan State University agricultural economists estimated grain and livestock prices with assistance from county and regional Extension staff for specialized crops. Seed, fertilizer and chemical costs are based on ingredient costs from an informal survey of commercial sources.

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- **Roger Betz**, District Extension Farm Management Agent (Dairy, Swine)
- **Roy Black**, Extension Farm Management Specialist (Feeder Steers)
- **Joel Cowley**, Extension Beef Specialist (Cow-calf)
- **Ron Goldy**, District Extension Vegetable Agent (Tomatoes)
- **Kevin Gould**, District Extension Livestock Agent (Feeder Steers, Stocker Calf)
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- **Jim Hilker**, Extension Farm Management Specialist (Prices)
- **Glenn Kole**, District Extension Farm Management Agent (Cherries)
- **Jerry Lindquist**, County Extension Director (Hay and Pasture)
- **Mark Longstroth**, District Extension Fruit Agent (Blueberries)
- **Paul Marks**, Extension Agricultural Agent (Vegetables)
- **Sherrill Nott**, Extension Farm Management Agent (Dairy)
- **Jim Nugent**, Coordinator, Northwest Michigan Horticultural Research Station (Cherries)
- **Steve Poindexter**, Extension Agricultural Agent (Sugar Beets)
-
- **Joe Rook**, Extension Sheep Specialist (Sheep)
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- **Steve Rust**, Extension Beef Specialist (Feeder Steers)
- **Warren Schauer**, District Extension Farm Management Agent (Dairy)
- **Phil Schwallier**, District Extension Fruit Agent (Apples)
- **Don Smucker**, County Extension Director (Vegetables)
- **Dennis Stein**, District Extension Farm Management Agent (Barley, Oats, Navy Beans, Sugar Beets)
- **Craig Thomas**, District Extension Dairy Agent (Dairy)
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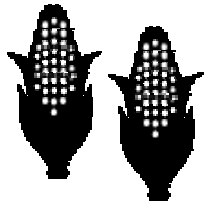
Prices and Costs Used in 2001 Budgets

	Unit	Cost ($)
FIELD CROPS		
Barley	bu	1.90
Beans – Navy	cwt	17.90
Corn – Grain	bu	2.10
Corn – Grain, Organic	bu	4.00
Oats	bu	1.20
Oats, Organic	bu	1.50
Soybeans	bu	5.25
Soybeans	bu	15.00
Sugar Beets	ton	34.00
Wheat	bu	2.60
FORAGES		
Barley – Silage	ton	17
Corn Silage	ton	24
Hay – Alfalfa, Early	ton	70
Hay – Alfalfa, Later	ton	80
Hay – Grass	ton	50
Hay – Mixed	ton	65
Haylage – Alfalfa	ton	40
Oatlage	ton	17
Pasture – Improved	ton	80
Pasture – Unimproved	ton	40
FRUITS & VEGETABLES		
Apples	lb	0.08
Bell Peppers	30 lb	8.00
Blueberries	lb	0.75
Cherries – Sweet	lb	0.25
Cherries – Tart	lb	0.23
Pumpkin	ton	120
Tomatoes – Fresh mkt	20 lb	10

	Unit	Cost
LIVESTOCK		
Beef – Colored		
Beef cow – Cull	cwt	35
Beef cow – Replacement	head	900
Heifer – Weaned	cwt	85
Steer – Calf (400 lb)	cwt	93
Steer – Feeder	cwt	78
Steer – Slaughter (70% choice)	cwt	76
Steer – Weaned	cwt	87
Beef – Holsteins		
Steer – Calf	cwt	79
Steer – Slaughter (70% choice)	cwt	70
Dairy		
Dairy Calf – Bull	head	80
Dairy Cow – Cull	cwt	30
Milk	cwt	13
Sheep		
Ewes – Cull	cwt	30
Ewe – Replacement	head	110
Lamb – Fall market	cwt	70
Lamb – Finished	cwt	80
Ram – Replacement	head	300
Wool – Ewe	lb	0.25
Wool – Market Lamb	lb	0.10
Swine		
Boar – Cull	cwt	20
Boar – Replacement	head	600
Hog – Finished	cwt	42.00
Pig – Feeder (40 lb)	head	46.00
Pig – Weaned	head	26.50
Sow – Cull	cwt	26.00
Sow – Replacement	head	200

	Unit	Cost ($)
FERTILIZER		
Nitrogen – Urea	lb N	0.25
Nitrogen – Anhydrous	lb N	0.20
Super Phosphate	lb $P_2 0_5$	0.18
Potash	lb $K_2 0$	0.13
Lime	ton	20.00
SEED & TREES		
Barley	bu	6
Corn – Grain	50 lb	90
Oats	lb	0.16
Soybeans – GM	50 lb	21
Soybeans – non GM	50 lb	15
Wheat	bu	7.20
Apple Trees	tree	6
Cherry Trees	tree	7.50
Blueberry Bushes	bush	2.50
OTHER INPUTS		
Drying Fuel	bu	0.25
Irrigation Water	acre-	4.50
Interest Rate	%	9%
Trucking, Grain	bu	0.15
Marketing, Grain	bu	0.05
Milk Hauling	cwt	0.44
Soybean Meal (48%)	ton	180



Corn Grain (following legume)

High Yield Goal
Conventional Cultural Practices

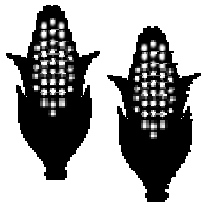
	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grain	150	bu	$ 2.10	$ 315.00
TOTAL REVENUE				**$ 315.00**
CASH EXPENSES				
Seed	30,000	kernel	$ 90.00	$ 33.75
Fertilizer[1]				
Nitrogen	150	lbs	$ 0.20	$ 30.00
P_2O_5	55	lbs	$ 0.18	$ 9.90
K_2O	85	lbs	$ 0.13	$ 11.05
Lime				$ 8.00
Herbicides [2]				$ 29.25
Insecticides[3]	0	lbs	$ 2.50	$ -
Drying	150	bu	$ 0.25	$ 37.50
Fuel, oil, lube[4]	5	gal	$ 1.73	$ 8.63
Repairs				$ 22.00
Utilities				$ 6.00
Trucking	150	bu	$ 0.15	$ 22.50
Marketing	150	bu	$ 0.05	$ 7.50
TOTAL SELECTED CASH EXPENSES				**$ 226.08**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 88.93**
Family and regular hired labor, hours				3.6
Corn grain equivalent, bu				150.0

1 Assumes 35 lb N contribution from previous crop and soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes post-emergence application of 1 pt Buctril and 1 pt 4L atrazine; and pre-emergence grass control from 1.3 pt Dual II magnum.

3 Assumes no insecticide treatment required for corn rootworm because of crop rotation.

4 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.



Corn Grain (following corn)

High Yield Goal
Conventional Cultural Practices

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grain	135	bu	$ 2.10	$ 283.50
TOTAL REVENUE				**$ 283.50**
CASH EXPENSES				
Seed	30,000	kernel	$ 90.00	$ 33.75
Fertilizer[1]				
Nitrogen	155	lbs	$ 0.20	$ 31.00
P_2O_5	45	lbs	$ 0.18	$ 8.10
K_2O	75	lbs	$ 0.13	$ 9.75
Lime				$ 8.00
Herbicides[2]				$ 29.25
Insecticides[3]	5	lbs	$ 2.50	$ 12.50
Drying	135	bu	$ 0.25	$ 33.75
Fuel, oil, lube[4]	5	gal	$ 1.73	$ 8.63
Repairs				$ 22.00
Utilities				$ 6.00
Trucking	135	bu	$ 0.15	$ 20.25
Marketing	135	bu	$ 0.05	$ 6.75
TOTAL SELECTED CASH EXPENSES				**$ 229.73**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 53.78**
Family and regular hired labor, hours				3.6
Corn grain equivalent, bu				135.0

1 Assumes no N contribution from previous crop and soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes post-emergence application of 1 pt Buctril and 1 pt 4L atrazine; and pre-emergence grass control from 1.3 pt Dual II magnum.

3 Assumes treatment for corn rootworm with Counter insecticide.

4 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

Corn Grain (following legume)

Mid-Level Yield Goal
Conventional Cultural Practices

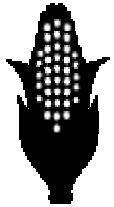
	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grain	120	bu	$ 2.10	$ 252.00
TOTAL REVENUE				**$ 252.00**
CASH EXPENSES				
Seed	26,000	kernel	$ 90.00	$ 29.25
Fertilizer[1]				
Nitrogen	105	lbs	$ 0.20	$ 21.00
P_2O_5	45	lbs	$ 0.18	$ 8.10
K_2O	70	lbs	$ 0.13	$ 9.10
Lime				$ 8.00
Herbicides[2]				$ 29.25
Insecticides[3]				
Drying	120	bu	$ 0.25	$ 30.00
Fuel, oil, lube[4]	5	gal	$ 1.73	$ 8.63
Repairs				$ 22.00
Utilities		bu		$ 5.50
Trucking	120	bu	$ 0.15	$ 18.00
Marketing	120	bu	$ 0.05	$ 6.00
TOTAL SELECTED CASH EXPENSES				**$ 194.83**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 57.18**
Family and regular hired labor, hours				3.5
Corn grain equivalent, bu				120.0

1 Assumes 35 lb N contribution from previous crop and soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, "Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes post-emergence application of 1 pt Buctril and 1 pt 4L atrazine; and pre-emergence grass control from 1.3 pt Dual II magnum.

3 Assumes no insecticide treatment required for rootworm because of crop rotation.

4 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.



Corn Grain (following corn)

Mid-Level Yield Goal
Conventional Cultural Practices

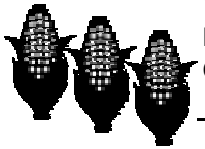
	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grain	108	bu	$ 2.10	$ 226.80
TOTAL REVENUE				**$ 226.80**
CASH EXPENSES				
Seed	26,000	kernel	$ 90.00	$ 29.25
Fertilizer[1]				
Nitrogen	120	lbs	$ 0.20	$ 24.00
P_2O_5	40	lbs	$ 0.18	$ 7.20
K_2O	65	lbs	$ 0.13	$ 8.45
Lime				$ 8.00
Herbicides[2]				$ 29.25
Insecticides[3]	5	lbs	$ 2.50	$ 12.50
Drying	108	bu	$ 0.25	$ 27.00
Fuel, oil, lube[4]	5	gal	$ 1.73	$ 8.63
Repairs				$ 22.00
Utilities				$ 5.50
Trucking	108	bu	$ 0.15	$ 16.20
Marketing	108	bu	$ 0.05	$ 6.00
TOTAL SELECTED CASH EXPENSES				**$ 203.98**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 22.83**
Family and regular hired labor, hours				3.4
Corn grain equivalent, bu				108.0

1 Assumes no N contribution from previous crop and soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, "Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes post-emergence application of 1 pt Buctril and 1 pt 4L atrazine; and pre-emergence grass control from 1.3 pt Dual II magnum.

3 Assumes treatment for corn rootworm with Counter insecticide.

4 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.



Corn Grain, Irrigated (following legume)

High Yield Goal
Conventional Cultural Practices

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grain	200	bu	$ 2.10	$ 420.00
TOTAL REVENUE				**$ 420.00**
CASH EXPENSES				
Seed	34,000	kernel	$ 90.00	$ 38.25
Fertilizer[1]				
Nitrogen	185	lb	$ 0.20	$ 37.00
P_2O_5	90	lb	$ 0.18	$ 16.20
K_2O	200	lb	$ 0.13	$ 26.00
Lime				$ 8.00
Herbicides[2]				$ 29.25
Insecticides				$ -
Drying	200	bu	$ 0.25	$ 50.00
Irrigation	6	acre-inch	$ 4.50	$ 27.00
Fuel, oil, lube[3]	5.5	gal	$ 1.73	$ 9.49
Repairs				$ 30.00
Utilities				$ 5.50
Trucking	200	bu	$ 0.15	$ 30.00
Marketing	200	bu	$ 0.05	$ 10.00
TOTAL SELECTED CASH EXPENSES				**$ 316.69**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 103.31**
Family and regular hired labor, hours				3.5
Corn grain equivalent, bu				200

1 Assumes 35 lb N contribution from previous crop and soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 1995, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes post-emergence application of 1 pt Buctril and 1 pt 4L atrazine; and pre-emergence grass control from 1.3 pt Dual II magnum.

3 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

Corn Grain, Organic (following legume)

Realistic Yield Goal
ORGANIC Cultural Practices

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grain	100	bu	$ 4.00	$ 400.00
TOTAL REVENUE				**$ 400.00**
CASH EXPENSES				
Seed	25,000	kernel	$ 90.00	$ 28.13
Fertilizer[1]				
Compost[2]	3000	lb	$ 0.02	$ 60.00
Cover crop (previous year	12	lb	$ 1.25	$ 15.00
Lime				$ 8.00
Drying	100	bu	$ 0.25	$ 25.00
Fuel, oil, lube[3]	7	gal	$ 1.73	$ 12.08
Repairs				$ 22.00
Labor for weeding[4]	5	hr	$ 10.00	$ 50.00
Utilities				$ 6.00
Trucking	100	bu	$ 0.30	$ 30.00
Marketing	100	bu	$ 0.10	$ 10.00
TOTAL SELECTED CASH EXPENSES				**$ 266.20**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 133.80**
Family and regular hired labor, hours				3.4
Corn grain equivalent, bu				100

1 Assumes 50 lb N contribution from previous crop and soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 1995, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Compost nutrient analysis: 2-5-3.

3 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

4 Weed control with rotary hoeing, row cultivation and labor hired for hand weeding.

Soybeans

High Yield Goal
Conventional Culture, Non-GM

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Soybeans	50	bu	$ 5.25	$ 262.50
TOTAL REVENUE				**$ 262.50**
CASH EXPENSES				
Seed	200,000	seeds	$ 15.00	$ 21.43
Fertilizer[1]				
P_2O_5	40	lbs	$ 0.18	$ 7.20
K_2O	105	lbs	$ 0.13	$ 13.65
Lime				$ 8.00
Herbicides[2]	3	pint	$ 5.00	$ 15.00
Fuel, oil, lube[3]	4.25	gal	$ 1.73	$ 7.33
Repairs				$ 18.00
Utilities				$ 1.50
Trucking	50	bu	$ 0.15	$ 7.50
Marketing	50	bu	$ 0.05	$ 2.50
TOTAL SELECTED CASH EXPENSES				**$ 102.11**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 160.39**
Family and regular hired labor, hours				3.2

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, "Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes 3 pint Steel per acre pre-emergence.

3 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

Soybeans

High Yield Goal
No-Till, GM

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Soybeans	50	bu	$ 5.25	$ 262.50
TOTAL REVENUE				**$ 262.50**
CASH EXPENSES				
Seed	200,000	seeds	$ 21.00	$ 30.00
Fertilizer[1]				
P_2O_5	40	lbs	$ 0.18	$ 7.20
K_2O	105	lbs	$ 0.13	$ 13.65
Lime				$ 8.00
Herbicides[2]	1	quart	$ 9.00	$ 9.00
Fuel, oil, lube[3]	2.5	gallon	$ 1.73	$ 4.31
Repairs				$ 10.00
Utilities				$ 1.50
Trucking	50	bu	$ 0.15	$ 7.50
Marketing	50	bu	$ 0.05	$ 2.50
TOTAL SELECTED CASH EXPENSES				**$ 93.66**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 168.84**
Family and regular hired labor, hours				2.2

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, "Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes 1 quart Roundup Ultra post-emergence.

3 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

Soybeans

Mid-Yield Goal
Conventional Culture, Non-GM

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Soybeans	40	bu	$ 5.25	$ 210.00
TOTAL REVENUE				**$ 210.00**
CASH EXPENSES				
Seed	180,000	seeds	$ 15.00	$ 19.29
Fertilizer[1]				
P_2O_5	30	lbs	$ 0.18	$ 5.40
K_2O	90	lbs	$ 0.13	$ 11.70
Lime				$ 7.50
Herbicides[2]	3	pint	$ 5.00	$ 15.00
Fuel, oil, lube[3]	4.25	gal	$1.50	$ 6.38
Repairs				$ 18.00
Utilities				$ 1.50
Trucking	40	bu	$ 0.15	$ 6.00
Marketing	40	bu	$ 0.05	$ 2.00
TOTAL SELECTED CASH EXPENSES				**$ 92.76**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 117.24**
Family and regular hired labor, hours				3.0

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, "Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes 3 pint Steel per acre pre-emergence.

3 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

Soybeans

Mid-Yield Goal
No-Till, GM

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Soybeans	40	bu	$ 5.25	$ 210.00
TOTAL REVENUE				**$ 210.00**
CASH EXPENSES				
Seed	180,000	seeds	$ 21.00	$ 27.00
Fertilizer[1]				
P_2O_5	30	lbs	$ 0.18	$ 5.40
K_2O	90	lbs	$ 0.13	$ 11.70
Lime				$ 7.50
Herbicides[2]	1	quart	$ 9.00	$ 9.00
Fuel, oil, lube[3]	2.5	gal	$1.50	$ 3.75
Repairs				$ 10.00
Utilities				$ 1.50
Trucking	40	bu	$ 0.15	$ 6.00
Marketing	40	bu	$ 0.05	$ 2.00
TOTAL SELECTED CASH EXPENSES				**$ 83.85**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 126.15**
Family and regular hired labor, hours				2.0

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, "Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes 1 quart Roundup Ultra post-emergence.

3 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

Wheat (without legume seeding)

High Yield Goal
Conventional Cultural Practices

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grain	90	bu	$2.60	$ 234.00
TOTAL REVENUE				**$ 234.00**
CASH EXPENSES				
Seed	120	lbs	$ 0.15	$ 18.00
Fertilizer[1]				
Nitrogen	110	lbs	$ 0.25	$ 27.50
Phosphate	55	lbs	$ 0.18	$ 9.90
Potash	70	lbs	$ 0.13	$ 9.10
Lime				$ 8.00
Herbicides[2]	1	pint	$ 1.65	$ 6.60
Insecticides[3]	4	oz	$ 2.58	$ 10.31
Fuel, oil, lube[4]	4	gal	$ 1.73	$ 6.90
Repairs				$ 15.00
Utilities				$ 2.00
Trucking	90	bu	$ 0.15	$ 13.50
Marketing	90	bu	$ 0.05	$ 4.50
TOTAL SELECTED CASH EXPENSES				**$ 131.31**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 102.69**
Family and regular hired labor, hours				3.5
Corn grain equivalent, bu				99

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes weed control with 1 pint of 2,4-D.

3 Assumes scab control with 4 ounces of Tilt.

4 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

Wheat (without legume seeding)

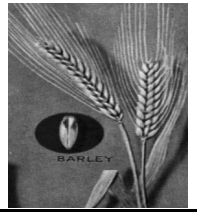
Mid-Level Yield Goal
Conventional Cultural Practices

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grain	70	bu	$2.60	$ 182.00
TOTAL REVENUE				**$ 182.00**
CASH EXPENSES				
Seed	100	lbs	$ 0.15	$ 15.00
Fertilizer[1]				
Nitrogen	75	lbs	$ 0.25	$ 18.75
Phosphate	45	lbs	$ 0.18	$ 8.10
Potash	60	lbs	$ 0.13	$ 7.80
Lime				$ 8.00
Herbicides[2]	1	pint	$ 1.65	$ 1.65
Insecticides				
Fuel, oil, lube[3]	4	gal	$ 1.73	$ 6.90
Repairs				$ 15.00
Utilities				$ 2.00
Trucking	70	bu	$ 0.15	$ 10.50
Marketing	70	bu	$ 0.05	$ 3.50
TOTAL SELECTED CASH EXPENSES				**$ 97.20**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 84.80**
Family and regular hired labor, hours				3.5
Corn grain equivalent, bu				77

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes weed control with 1 pint of 2,4-D.

3 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.



Barley (without legume seeding)

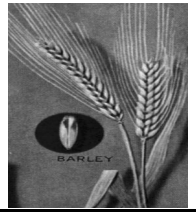
High Yield Goal

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grain	90	bu	$ 1.90	$ 171.00
TOTAL REVENUE				**$ 171.00**
CASH EXPENSES				
Seed	120	lb	$ 0.13	$ 15.00
Fertilizer[1]				
Nitrogen	60	lb	$ 0.25	$ 15.00
Phosphate	60	lb	$ 0.18	$ 10.80
Potash	110	lb	$ 0.13	$ 14.30
Lime				$ 7.50
Herbicides[2]	1	pint	$ 1.65	$ 1.65
Fuel, oil, lube[3]	4	gal	$ 1.73	$ 6.90
Equipment repairs				$ 15.00
Utilities, phone				$ 1.65
Trucking	90	bu	$ 0.15	$ 13.50
Marketing	90	bu	$ 0.05	$ 4.50
TOTAL SELECTED CASH EXPENSES				**$ 105.80**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 65.20**
Family and regular hired labor, hours				3.0
Corn grain equivalent, bu				72.0

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more d

2 Assumes weed control with 1 pint of 2,4-D.

3 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.



Barley (without legume seeding)

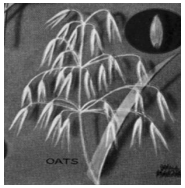
Mid-Level Yield Goal

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grain	60	bu	$ 1.90	$ 114.00
TOTAL REVENUE				**$ 114.00**
CASH EXPENSES				
Seed	100	lb	$ 0.13	$ 12.50
Fertilizer[1]		lb		
Nitrogen	50	lb	$ 0.25	$ 12.50
Phosphate	50	lb	$ 0.18	$ 9.00
Potash	40	lb	$ 0.13	$ 5.20
Lime				$ 7.50
Herbicides[2]	1	pint	$ 1.65	$ 1.65
Fuel, oil, lube[3]	4	gal	$ 1.73	$ 6.90
Equipment repairs				$ 15.00
Utilities, phone				$ 1.65
Trucking	60	bu	$ 0.15	$ 9.00
Marketing	60	bu	$ 0.05	$ 3.00
TOTAL SELECTED CASH EXPENSES				**$ 83.90**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 30.10**
Family and regular hired labor, hours				3.0
Corn grain equivalent, bu				48.0

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more d

2 Assumes weed control with 1 pint of 2,4-D.

3 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.



Oats

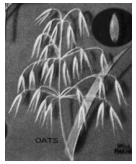
High Yield Goal

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grain	90	bu	$ 1.20	$ 108.00
TOTAL REVENUE				**$ 108.00**
CASH EXPENSES				
Seed	80	lb	$ 0.25	$ 20.00
Fertilizer[1]				
Nitrogen	65	lb	$ 0.25	$ 16.25
Phosphate	24	lb	$ 0.18	$ 4.32
Potash	40	lb	$ 0.13	$ 5.20
Lime				$ 7.50
Herbicides[2]	0.75	pint	$ 1.65	$ 1.24
Fuel, oil, lube[3]	4	gal	$ 1.73	$ 6.90
Equipment repairs				$ 15.00
Utilities, phone				$ 1.65
Trucking	90	bu	$ 0.15	$ 13.50
Marketing	90	bu	$ 0.05	$ 4.50
TOTAL SELECTED CASH EXPENSES				**$ 96.06**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 11.94**
Family and regular hired labor, hours				3.0
Corn grain equivalent, bu				45.0

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more d

2 Assumes weed control with 1 pint of 2,4-D.

3 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.



Oats

Mid-Level Yield Goal

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grain	65	bu	$ 1.20	$ 78.00
TOTAL REVENUE				**$ 78.00**
CASH EXPENSES				
Seed	65	lb	$ 0.25	$ 16.25
Fertilizer[1]				
Nitrogen	40	lb	$ 0.25	$ 10.00
Phosphate	12	lb	$ 0.18	$ 2.16
Potash	30	lb	$ 0.13	$ 3.90
Lime				$ 7.50
Herbicides[2]	0.75	pint	$ 1.65	$ 1.24
Fuel, oil, lube[3]	4	gal	$ 1.73	$ 6.90
Equipment repairs				$ 15.00
Utilities, phone				$ 1.65
Trucking	65	bu	$ 0.15	$ 9.75
Marketing	65	bu	$ 0.05	$ 3.25
TOTAL SELECTED CASH EXPENSES				**$ 77.60**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 0.40**
Family and regular hired labor, hours				3.0
Corn grain equivalent, bu				32.5

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more d

2 Assumes weed control with 1 pint of 2,4-D.

3 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

Soybeans, Organic

Realistic Yield Goal
ORGANIC Cultural Practices

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Soybeans, cert organic	27	bu	$15.00	$ 405.00
Soybeans, com grade	3	bu	$5.25	$ 15.75
TOTAL REVENUE				**$ 420.75**
CASH EXPENSES				
Seed	175,000	kernel	$ 15.00	$ 18.75
Fertilizer[1]				
Potassium sulfate	100	lb	$ 0.15	$ 15.00
Lime				$ 8.00
Fuel, oil, lube[2]	5	gal	$ 1.73	$ 8.63
Repairs				$ 18.00
Labor for weeding[3]	5	hr	$ 10.00	$ 50.00
Utilities				$ 1.50
Trucking	27	bu	$ 0.30	$ 8.10
Marketing	27	bu	$ 0.10	$ 2.70
TOTAL SELECTED CASH EXPENSES				**$ 130.68**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 290.08**
Family and regular hired labor, hours				3.2

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, "Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

3 Weed control with rotary hoeing, row cultivation and labor hired for hand weeding.

Oats, Organic

Realistic Yield Goal
ORGANIC Cultural Practices

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Oats, cert organic	90	bu	$ 1.50	$ 135.00
TOTAL REVENUE				**$ 135.00**
CASH EXPENSES				
Seed	65	lb	$ 0.25	$ 16.25
Fertilizer[1]				
Potassium sulfate	100	lb	$ 0.15	$ 15.00
Cover crop	12	lb	$ 1.25	$ 15.00
Lime				$ 8.00
Fuel, oil, lube[2]	4	gal	$ 1.73	$ 6.90
Repairs				$ 15.00
Utilities				$ 1.50
Trucking	90	bu	$ 0.30	$ 27.00
Marketing	90	bu	$ 0.10	$ 9.00
TOTAL SELECTED CASH EXPENSES				**$ 113.65**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 21.35**
Family and regular hired labor, hours				3.0
Corn grain equivalent, bu				45

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, "Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

Sugar Beets

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Sugar beets	19	ton	$ 34.00	$ 646.00
TOTAL REVENUE				**$ 646.00**
CASH EXPENSES				
Seed/Pelletizing				$ 35.00
Fertilizer				
Nitrogen	120	lb	$ 0.25	$ 30.00
Phosphate	90	lb	$ 0.18	$ 16.20
Potash	200	lb	$ 0.13	$ 26.00
Herbicides				$ 87.00
Fungicides[1]				$ -
Fuel, oil, lube[2]	14	gal	$ 1.73	$ 24.15
Equipment repairs				$ 35.00
Custom harvesting				$ 25.00
Hoeing	2	hours	$ 10.00	$ 20.00
Utilities, phone				$ 2.00
Trucking	19	ton	$ 3.50	$ 66.50
TOTAL SELECTED CASH EXPENSES				**$ 366.85**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 279.15**
Family and regular hired labor, hours				12.0

1 Depending upon the climatic year, this crop may benefit from applications of insect and disease control materials at an additional cost.

2 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

Beans, Navy

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Navy beans	19	cwt	$ 16.00	$ 304.00
TOTAL REVENUE				**$ 304.00**
CASH EXPENSES				
Seed & treatment				$ 37.50
Fertilizer				
Nitrogen	50	lb	$ 0.25	$ 12.50
Phosphate	60	lb	$ 0.18	$ 10.80
Potash	120	lb	$ 0.13	$ 15.60
Herbicides				$ 26.50
Fungicides/Insecticides[1]				$ -
Fuel, oil, lube[2]	8.5	gal	$ 1.73	$ 14.66
Equipment repairs				$ 20.00
Hoeing	1.2	hours	$ 10.00	$ 12.00
Utilities, phone				$ 2.00
Trucking	19	cwt	$ 0.25	$ 4.75
Marketing	19	cwt	$ 0.15	$ 2.85
TOTAL SELECTED CASH EXPENSES				**$ 159.16**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 144.84**
Family and regular hired labor, hours				7.0

1 Depending upon the climatic year, some varieties may benefit from applications of insect and disease control materials at an additional cost.

2 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

Corn Silage (following legume)

Mid-Level Yield Goal
Conventional Cultural Practices

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Silage	20	ton	$ 24.00	$ 480.00
TOTAL REVENUE				**$ 480.00**
CASH EXPENSES				
Seed	26,000	kernel	$ 90.00	$ 29.25
Fertilizer[1]				
Nitrogen	105	lbs	$ 0.20	$ 21.00
P_2O_5	65	lbs	$ 0.18	$ 11.70
K_2O	200	lbs	$ 0.13	$ 26.00
Lime				$ 8.00
Herbicides[2]			$ 1.73	$ 29.25
Insecticides[3]				$ -
NPN Additive	160	lbs	$ 0.20	$ 32.00
Fuel, oil, lube[4]	7.5	gal	$ 1.73	$ 12.94
Repairs				$ 28.00
Utilities				$ 5.50
Trucking	20	ton	$ 1.50	$ 30.00
TOTAL SELECTED CASH EXPENSES				**$ 233.64**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 246.36**
Family and regular hired labor, hours				7.0

1 Assumes 35 lb N contribution from previous crop; and soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes post-emergence application of 1 pt Buctril and 1 pt 4L atrazine; and pre-emergence grass control from 1.3 pt Dual II magnum.

3 Assumes no insecticide treatment required for rootworm because of crop rotation.

4 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

Corn Silage (following corn)

Mid-Level Yield Goal
Conventional Cultural Practices

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Silage	18	bu	$ 24.00	$ 432.00
TOTAL REVENUE				**$ 432.00**
CASH EXPENSES				
Seed	26,000	kernel	$ 90.00	$ 29.25
Fertilizer[1]				
Nitrogen	120	lbs	$ 0.20	$ 24.00
P_2O_5	60	lbs	$ 0.18	$ 10.80
K_2O	180	lbs	$ 0.13	$ 23.40
Lime				$ 8.00
Herbicides[2]				$ 29.25
Insecticides[3]	5	lbs	$ 2.50	$ 12.50
NPN Additive	144	lbs	$ 0.20	$ 28.80
Fuel, oil, lube[4]	7	gal	$ 1.73	$ 12.08
Repairs				$ 28.00
Utilities				$ 5.50
Trucking	18	to	$ 1.50	$ 27.00
TOTAL SELECTED CASH EXPENSES				**$ 238.58**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 193.43**
Family and regular hired labor, hours				7.0

1 Assumes no N contribution from previous crop; and soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes post-emergence application of 1 pt Buctril and 1 pt 4L atrazine; and pre-emergence grass control from 1.3 pt Dual II magnum.

3 Assumes treatment for corn rootworm with Counter insecticide.

4 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

Haylage, Alfalfa

Four Cut System

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Alfalfa haylage	12	ton	$ 40	$ 480.00
TOTAL REVENUE				**$ 480.00**
CASH EXPENSES				
Fertilizer				
Phosphate	90	lb	$ 0.18	$ 16.20
Potash	300	lb	$ 0.13	$ 39.00
Insecticides				$ 8.00
Crop supplies, packs				$ 2.00
Fuel, oil, lube[1]	14	gal	$ 1.73	$ 24.15
Equipment repairs				$ 35.90
Utilities, phone				$ 1.50
Trucking	12	ton	$ 1.50	$ 18.00
TOTAL SELECTED CASH EXPENSES				**$ 144.75**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 335.25**
Family and regular hired labor, hours				6.0
Dry hay equivalent, tons[2]				6.8

1 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

2 Assumes 88% moisture.

Haylage, Alfalfa

Three Cut System

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Alfalfa haylage	8	ton	$ 40	$ 320.00
TOTAL REVENUE				**$ 320.00**
CASH EXPENSES				
Fertilizer				
Phosphate	60	lb	$ 0.18	$ 10.80
Potash	270	lb	$ 0.13	$ 35.10
Insecticides				$ 4.00
Crop supplies, packs				$ 2.00
Fuel, oil, lube[1]	10.5	gal	$ 1.73	$ 18.11
Equipment repairs				$ 35.90
Utilities, phone				$ 1.50
Trucking	8	ton	$ 1.50	$ 12.00
TOTAL SELECTED CASH EXPENSES				**$ 119.41**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 200.59**
Family and regular hired labor, hours				5.0
Dry hay equivalent, tons[2]				4.5

1 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

2 Assumes 88% moisture.

Hay, Alfalfa

Four Cut System
1,000 Lb Round Bales

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Alfalfa hay	6	ton	$ 80.00	$ 480
TOTAL REVENUE				**$ 480.00**
CASH EXPENSES				
Fertilizer				
Phosphate	80	lb	$ 0.18	$ 14.40
Potash	300	lb	$ 0.13	$ 39.00
Insecticides				$ 8.00
Twine, wrap	12	bales	$ 1.50	$ 18.00
Fuel, oil, lube[1]	8	gal	$ 1.73	$ 13.80
Equipment repairs				$ 33.70
Utilities, phone				$ 1.50
Transportation	6	ton	$ 3.00	$ 18.00
TOTAL SELECTED CASH EXPENSES				**$ 146.40**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 333.60**
Family and regular hired labor, hours[2]				7.0
Dry hay equivalent, tons[3]				6.0

1 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

2 Labor hours required are highly influenced by the chosen harvest system.

3 Assumes 88% moisture.

Hay, Alfalfa

Three Cut System
1,000 Lb Round Bales

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Alfalfa hay	4	ton	$ 80.00	$ 320
TOTAL REVENUE				**$ 320.00**
CASH EXPENSES				
Fertilizer				
Phosphate	50	lb	$ 0.18	$ 9.00
Potash	240	lb	$ 0.13	$ 31.20
Insecticides				$ 4.00
Twine, wrap	8	bales	$ 1.50	$ 12.00
Fuel, oil, lube[1]	6	gal	$ 1.73	$ 10.35
Equipment repairs				$ 25.90
Utilities, phone				$ 1.50
Transportation	4	ton	$ 3.00	$ 12.00
TOTAL SELECTED CASH EXPENSES				**$ 105.95**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 214.05**
Family and regular hired labor, hours[2]				5.5
Dry hay equivalent, tons[3]				4.0

1 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

2 Labor hours required are highly influenced by the chosen harvest system.

3 Assumes 88% moisture.

Hay, Mixed

Three Cut System
1,000 Lb Round Bales

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Mixed hay	4	ton	$ 65.00	$ 260.00
TOTAL REVENUE				**$ 260.00**
CASH EXPENSES				
Fertilizer				
Phosphate	40	lb	$ 0.18	$ 7.20
Potash	240	lb	$ 0.13	$ 31.20
Insecticides				$ 8.00
Twine, wrap	8	bales	$1.50	$ 12.00
Fuel, oil, lube[1]	8	gal	$1.73	$ 13.80
Equipment repairs				$ 25.90
Building repairs				$ 2.20
Utilities, phone				$ 1.50
TOTAL SELECTED CASH EXPENSES				**$ 101.80**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 158.20**
Family and regular hired labor, hours[2]				5.5
Dry hay equivalent, tons[3]				4.0

1 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

2 Labor hours required are highly influenced by the chosen harvest system.

3 Assumes 88% moisture.

Hay, Mixed

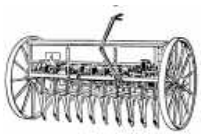
Two Cut System
1,000 Lb Round Bales

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Mixed hay	2	ton	$ 65.00	$ 130.00
TOTAL REVENUE				**$ 130.00**
CASH EXPENSES				
Fertilizer				
Potash	40	lb	$ 0.13	$ 5.20
Insecticides				$ 4.00
Twine, wrap	4	bales	$1.50	$ 6.00
Fuel, oil, lube[1]	5	gal	$1.73	$ 8.63
Equipment repairs				$ 18.30
Building repairs				$ 2.20
Utilities, phone				$ 1.50
TOTAL SELECTED CASH EXPENSES				**$ 45.83**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 84.18**
Family and regular hired labor, hours[2]				3.7
Dry hay equivalent, tons[3]				2.0

1 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

2 Labor hours required are highly influenced by the chosen harvest system.

3 Assumes 88% moisture.



Alfalfa, Spring Seeded

With Oats as Companion Crop

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Hay	1	ton	$ 70.00	$ 70.00
Oatlage	2	ton	$ 17.00	$ 34.00
TOTAL REVENUE				**$ 104.00**
CASH EXPENSES				
Seed				
Alfalfa	15	lb	$ 3.50	$ 52.50
Oats	1	bu	$ 5.00	$ 5.00
Fertilizer				
Nitrogen	30	lb	$ 0.25	$ 7.50
Phosphate	40	lb	$ 0.18	$ 7.20
Potash	60	lb	$ 1.73	$ 103.50
Lime	2	ton	$ 20.00	$ 40.00
Insecticides				$ 9.00
Fuel, oil, lube[1]	5	gal	$1.73	$ 8.63
Equipment repairs				$ 20.00
Utilities, phone				$ 0.50
TOTAL SELECTED CASH EXPENSES				**$ 253.83**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ (149.83)**
Family and regular hired labor, hours				6.5
Dry hay equivalent, tons[2]				6.8

1 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

2 Assumes 88% moisture.

Hay, Grass

1,000 Lb Round Bales

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grass hay	3	ton	$ 50.00	$ 150.00
TOTAL REVENUE				**$ 150.00**
CASH EXPENSES				
Fertilizer				
Nitrogen	65	lb	$ 0.25	$ 16.25
Phosphate	40	lb	$ 0.18	$ 7.20
Potash	85	lb	$ 0.13	$ 11.05
Lime	0.25	ton	$20.00	$ 5.00
Insecticides				$ 3.75
Twine, wrap	6	bales	$1.50	$ 9.00
Fuel, oil, lube[1]	7	gal	$1.73	$ 12.08
Equipment repairs				$ 8.00
Utilities, phone				$ 0.50
TOTAL SELECTED CASH EXPENSES				**$ 72.83**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 77.18**
Family and regular hired labor, hours[2]				5.0
Dry hay equivalent, tons[3]				3.0

1 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

2 Labor hours required are highly influenced by the chosen harvest system.

3 Assumes 88% moisture.

Pasture

Improved Grass/Legume, Intensively Grazed

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grass/Legume[1]	3	ton	$ 65.00	$ 195.00
TOTAL REVENUE				**$ 195.00**
CASH EXPENSES				
Fertilizer				
Nitrogen	100	lb	$ 0.25	$ 25.00
Phosphate	30	lb	$ 0.18	$ 5.40
Potash	50	lb	$ 0.13	$ 6.50
Fuel, oil, lube[2]	2	gal	$1.73	$ 3.45
Equipment repairs				$ 5.40
Fence repairs				$ 2.00
Water system repairs				$ 1.00
Utilities, phone				$ 0.50
TOTAL SELECTED CASH EXPENSES				**$ 49.25**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 145.75**
Family and regular hired labor, hours				3.0
Dry hay equivalent, tons[3]				3.4

1 Tonnage harvested is 100% of what could be harvested mechanically.

2 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials. Includes fuel for spreading fertilizer and for one clipping of pasture to control weeds.

3 Assumes 88% moisture.

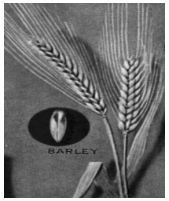
Pasture

Unimproved, Continuously Grazed

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Grass/Legume	1.5	ton	$ 40.00	$ 60.00
TOTAL REVENUE				**$ 60.00**
CASH EXPENSES				
Fence repairs				$ 1.50
Water system repairs				$ 0.50
Utilities, phone				$ 0.50
TOTAL SELECTED CASH EXPENSES				**$ 2.50**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 57.50**
Family and regular hired labor, hours				0.5
Dry hay equivalent, tons[2]				1.7

1 Tonnage harvested is 50% of what could be harvested mechanically.

2 Assumes 88% moisture.



Barley Silage

7 Ton

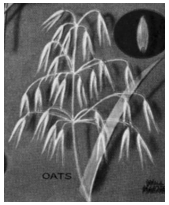
	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Silage	7	ton	$ 17.00	$ 119.00
TOTAL REVENUE				**$ 119.00**
CASH EXPENSES				
Seed	120	lb	$ 0.13	$ 15.00
Fertilizer[1]				
Nitrogen	60	lb	$ 0.25	$ 15.00
Phosphate	60	lb	$ 0.18	$ 10.80
Potash	110	lb	$ 0.13	$ 14.30
Lime				$ 7.50
Herbicides[2]	1	pint	$ 1.65	$ 1.65
Fuel, oil, lube[3]	3	gal	$ 1.73	$ 5.18
Equipment repairs				$ 20.00
Utilities, phone				$ 1.65
Trucking	7	ton	$ 1.50	$ 10.50
TOTAL SELECTED CASH EXPENSES				**$ 101.58**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 17.43**
Family and regular hired labor, hours				3.0
Dry hay equivalent, tons[4]				4.0

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes weed control with 1 pint of 2,4-D.

3 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

4 Assumes 88% moisture.



Oatlage

6.5 Ton

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Silage	6.5	ton	$ 17.00	$ 110.50
TOTAL REVENUE				**$ 110.50**
CASH EXPENSES				
Seed	80	lb	$ 0.16	$ 12.50
Fertilizer[1]		lb		
Nitrogen	65	lb	$ 0.25	$ 16.25
Phosphate	24	lb	$ 0.18	$ 4.32
Potash	60	lb	$ 0.13	$ 7.80
Lime				$ 7.50
Herbicides[2]	1	pint	$ 1.65	$ 1.65
Fuel, oil, lube[3]	3	gal	$ 1.73	$ 5.18
Equipment repairs				$ 20.00
Utilities, phone				$ 1.65
Trucking	6.5	ton	$ 1.50	$ 9.75
TOTAL SELECTED CASH EXPENSES				**$ 86.60**
REVENUE ABOVE SELECTED CASH EXPENSES				**$ 23.91**
Family and regular hired labor, hours				3.0
Dry hay equivalent, tons[4]				3.7

1 Assumes soil test indicating 50 lbs/acre available phosphorus and 150 lbs/acre available potassium. Refer to Michigan State University Extension bulletin E-2567, 2000, “Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa" for more detail.

2 Assumes weed control with 1 pint of 2,4-D.

3 Includes a $1.50 per gallon charge for diesel fuel and an additional 15% per gallon to cover cost of oil and lubrication materials.

4 Assumes 88% moisture.

Apples, Fresh Market

Central Leader System

Planting Year

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
TOTAL REVENUE				**$ -**
CASH EXPENSES				
Trees	182	trees	$ 6.00	$ 1,092
Custom plant	182	trees	$ 0.30	$ 55
Training materials				$ 10
Fertilizer[1]				$ 12
Herbicides[2]				$ 14
Pesticides[3]				$ 30
Rodenticides				$ 6
Mouse guards	182	guards	$ 0.25	$ 45
Wildlife control[4]	182	trees	$ 0.05	$ 9
Fuel				$ 30
Repairs				$ 15
Utilities				$ 5
TOTAL SELECTED CASH EXPENSES				**$ 1,322**
Family and regular hired labor, hours[5]				19.6

1 Includes urea for trees and $11 for sod fertilizer.

2 Includes Gramoxone (twice), Surlfan and 2,4-D.

3 Includes Nova (twice), Provado (twice) and Lorsban 50W.

4 Includes ribbons, soap, etc.

5 Includes Plowing - 0.5 hr, Disking - 0.3 hr, Stone & Root Picking - 3 hr, Layout & Marking - 1 hr, Watering - 2 hr, Training - 3 hr, Spraying Herbicide - 0.8 hr, Airblast Spraying - 0.2 hr, Fertilizer Spreading - 0.3 hr, Sod Establishment - 0.9 hr, Spreading bait and Applying Mouse Guards - 5.3 hr, Wildlife Control - 0.3 hr, Management - 2 hr.

See Michigan State University Department of Agricultural Economics Staff Paper 99-43, "Cost of Producing Fresh Market Apples in Western Michigan, 1998" for more detail.

Available at http://agecon.lib.umn.edu/msu.html

Apples, Fresh Market

Central Leader System

Full Bearing (8th Year of Stand Life)

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Apples	33,600	lb	$ 0.08	$ 2,688
TOTAL REVENUE				**$ 2,688**
CASH EXPENSES				
Trees	1.8	trees	$ 6.00	$ 11
Fertilizer[1]				$ 50
Foliar fertilizers[2]				$ 31
Herbicide[3]				$ 17
Pesticides[4]				$ 600
Rodenticide				$ 6
Wildlife control[5]	182	trees	$ 0.05	$ 9
Scouting				$ 15
Bees				$ 35
Fuel				$ 50
Repairs				$ 23
Utilities				$ 10
TOTAL SELECTED CASH EXPENSES				**$ 858**
Family and regular hired labor, hours[6]				40.5

1 Includes urea, potash and lime.

2 Includes Boron (once), 20-20-20 (four times) and CorClear (four times).

3 Includes Round-up, Princep, Karmex, 2,4-D, and Gramoxone.

4 Too numerous to list. See reference below.

5 Includes ribbons, soap, etc.

6 Includes Pruning - 30.3 hr, Brush Removal - 3 hr, Tree Replacement - 0.5 hr, Spraying Herbicide - 0.8 hr, Airblast Spraying - 1.8 hr, Mowing - 1.5 hr, Mouse Control - 0.3 hr, Wildlife Control - 2 hr, Fertilizer Spreading - 0.3 hr.

See Michigan State University Department of Agricultural Economics Staff Paper 99-43, "Cost of Producing Fresh Market Apples in Western Michigan, 1998" for more detail.

Available at http://agecon.lib.umn.edu/msu.html

Apples, Fresh Market

Vertical Axe System

Planting Year

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
TOTAL REVENUE				**$ -**
CASH EXPENSES				
Trees	519	trees	$ 6.00	$ 3,111
Custom plant	519	trees	$ 0.30	$ 156
Trellis				$ 1,248
Fertilizer[1]				$ 13
Herbicides[2]				$ 20
Pesticides[3]				$ 22
Rodenticides				$ 6
Wildlife control[4]	519	trees	$ 0.04	$ 21
Trickle irrigation				$ 933
Training materials				$ 20
Fuel				$ 18
Repairs				$ 33
Utilities				$ 5
TOTAL SELECTED CASH EXPENSES				**$ 5,606**
Family and regular hired labor, hours[5]				73.3

1 Includes urea for trees and $11 for sod fertilizer.

2 Includes Gramoxone (twice), Surlfan and 2,4-D.

3 Includes Nova (twice), Provado (twice) and Lorsban 50W.

4 Includes ribbons, soap, etc.

5 Includes Plowing - 0.5 hr, Disking - 0.3 hr, Stone & Root Picking - 3 hr, Layout & Marking - 1 hr, Trellis - 40 hr, Trickle Irrigation - 8 hr, Training - 15 hr, Spraying Herbicide - 1.1 hr, Airblast Spraying - 0.4 hr, Fertilizer Spreading - 0.4 hr, Sod Establishment - 0.9 hr, Spreading Mouse Bait - 0.4 hr, Wildlife Control - 0.3 hr, Management - 2 hr.

See Michigan State University Department of Agricultural Economics Staff Paper 99-43, "Cost of Producing Fresh Market Apples in Western Michigan, 1998" for more detail.

Available at http://agecon.lib.umn.edu/msu.html

Apples, Fresh Market

Vertical Axe System

Full Bearing (6th Year of Stand Life)

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Apples	33,600	lb	$ 0.08	$ 2,688
TOTAL REVENUE				**$ 2,688**
CASH EXPENSES				
Trees	5.2	trees	$ 6.00	$ 31
Training materials				$ 3
Fertilizer[1]				$ 52
Foliar fertilizers[2]				$ 24
Herbicide[3]				$ 18
Pesticides[4]				$ 450
Rodenticide				$ 6
Wildlife control[5]	519	trees	$ 0.04	$ 21
Scouting				$ 15
Bees				$ 35
Fuel				$ 81
Repairs				$ 22
Utilities				$ 10
TOTAL SELECTED CASH EXPENSES				**$ 768**
Family and regular hired labor, hours[6]				48.1

1 Includes urea, potash and lime.

2 Includes Boron (once), 20-20-20 (four times) and CorClear (four times).

3 Includes Round-up, Princep, Karmex, 2,4-D, and Gramoxone.

4 Too numerous to list. See reference below

5 Includes ribbons, soap, etc.

6 Includes Training - 2 hr, Pruning - 34.6 hr, Brush Removal - 2 hr, Tree Replacement - 0.5 hr, Spraying Herbicide - 1.1 hr, Airblast Spraying - 2.5 hr, Mowing - 2.1 hr, Mouse Control - 0.4, Wildlife Control - 2 hr, Fertilizer Spreading - 0.4 hr, Trickle Irrigation - 0.5 hr.

See Michigan State University Department of Agricultural Economics Staff Paper 99-43, "Cost of Producing Fresh Market Apples in Western Michigan, 1998" for more detail.

Available at http://agecon.lib.umn.edu/msu.html

Blueberries, Fresh Market

Planting Year

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
TOTAL REVENUE				**$ -**
CASH EXPENSES				
Rye cover crop				$ 7
Bushes	1210	bushes	$ 2.50	$ 3,025
Herbicides[1]				$ 229
Irrigation operation				$ 25
Fuel				$ 16
Repairs				$ 8
Utilities				$ 5
TOTAL SELECTED CASH EXPENSES				**$ 3,315**
Family and regular hired labor, hours[2]				24.4

1 Includes 2 - 1 gal applications of Paraquat, 1 - 1.5 gal application of Surflan and spot spraying of perennials with RoundUp.

2 Includes Planting - 6 hr, Deflowering - 4 hr, Weed spraying - 1.38 hr, Planting cover crop - 0.3 hr, Hand hoeing - 10 hr, Tilling - 0.7 hr, Spot spraying perennials - 1 hr, Management - 1 hr.

See Michigan State University Extension Bulletins E-0154 "2001 Fruit Spraying Calendar," E-1456 "Blueberry Varieties for Michigan" and E-2011 "Managing the Nutrition of Highbush Blueberries" for more detail.

Blueberries, Fresh Market

Full Bearing (Year 6 of production)

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Blueberries	2,700	lb	$ 0.75	$ 2,025
TOTAL REVENUE				**$ 2,025**
CASH EXPENSES				
Plant replacement	5	bushes	$ 2.50	$ 13
Fertilizer				
Nitrogen	75	lb	$0.25	$ 19
Lime	50	lb	$ 0.01	$ 1
Herbicides[1]				$ 21
Insecticides[2]				$ 45
Fungicides[3]				$ 269
Bird control				$ 15
Fuel				$ 41
Repairs				$ 18
Plant inspection				$ 11
Pest management/consulting				$ 25
Utilities				$ 5
TOTAL SELECTED CASH EXPENSES				**$ 482**
Family and regular hired labor, hours[4]				22.8

1 Includes 1 - 2 pt application of Paraquat, 1 - 2 lb application of Princep, 1 - 0.5 lb application of Sinbar, and spot spraying of perennials with RoundUp.

2 Includes 2 applications of Guthion, 1 application of Imidan and 1 of Malathion.

3 Includes 1 application of Indar, 2 of Bravo, 1 of Captec, 1 of Benelate, and 2 of Alliete.

4 Includes Brush removal - 1 hr, Fertilizing - 0.7 hr, Weed control - 1.79 hr, Mowing - 0.7 hr, Tilling - 0.7 hr, Insect and Disease and Wildlife control - 3.95 hr, Plant replacement - 2 hr, Irrigation repair - 2 hr, Management - 10 hr.

See Michigan State University Extension Bulletins E-0154 "2001 Fruit Spraying Calendar," E-1456 "Blueberry Varieties for Michigan" and E-2011 "Managing the Nutrition of Highbush Blueberries" for more detail.

Cherries, Tart

Processing Fruit

Planting Year

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
TOTAL REVENUE				**$ -**
CASH EXPENSES				
Trees	125	trees	$ 7.50	$ 938
Fertilizer				$ 227
Chemicals[1]				$ 265
Tree guards	125	guards	$ 0.35	$ 44
Sod cover seed				$ 63
Straw supplies				$ 94
Custom hire - site prep				$ 450
TOTAL SELECTED CASH EXPENSES				**$ 2,080**
Family and regular hired labor, hours[2]				30.0

1 Includes nematode, miticide, mouse bait, deer spray, and weed control.

2 Includes Mulching - 6 hr, Roots & rock pick-up - 8 hr, Tillage - 4 hr, Marking orchard - 5 hr, Planting trees - 2 hr, Deer control - 2 hr, Fertilizer and chemical application and cover seeding - 3 hr.

See Michigan State University Extension Bulletins E-1108, January 1997, "Cost of Producing Tart Cherries in Northwestern Michigan" and E-852, 1996, "Fertilizing Fruit Crops" or the "New Jersey Commercial Tree Fruit Production Guide 2001" available at http://www.rce.rutgers.edu/pubs/treefruitguide/index.html or by calling 732-932-9762 for more detail.

Cherries, Tart

Processing Fruit

Nonbearing Year

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
TOTAL REVENUE				**$ -**
CASH EXPENSES				
Replacement trees				$ 15
Fertilizer	125	trees	$ 0.38	$ 48
Chemicals				
Insect control				$ 7
Disease control				$ 40
Weed control				$ 18
Deer control	125	trees	$ 0.45	$ 56
Mouse control				$ 8
Growth regulator				$ 22
TOTAL SELECTED CASH EXPENSES				**$ 214**
Family and regular hired labor, hours[1]				10.0

1 Includes Pruning - 3 hr, Replanting, fertilizer and chemical application - 4 hr, Deer control - 2 hr, Mowing - 1 hr.

See Michigan State University Extension Bulletins E-1108, January 1997, "Cost of Producing Tart Cherries in Northwestern Michigan" and E-852, 1996, "Fertilizing Fruit Crops" or the "New Jersey Commercial Tree Fruit Production Guide 2001" available at http://www.rce.rutgers.edu/pubs/treefruitguide/index.html or by calling 732-932-9762 for more detail.

Cherries, Tart

Processing Fruit
Full Bearing

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Processing cherries	7,500	lb	$ 0.23	$ 1,725
TOTAL REVENUE				**$ 1,725**
CASH EXPENSES				
Fertilizer				$ 42
Lime				$ 21
Weed control				$ 19
Spray program				$ 171
Borer spray				$ 8
Foliar nutrients				$ 16
GA				$ 15
Ethryl				$ 5
Bee rental				$ 15
Harvest costs[1]				$ 47
Fuel, repair, utilities				$ 107
Scouting/consulting				$ 25
Trucking	7,500	lb	$ 0.01	$ 75
Marketing	7,500	lb	$ 0.05	$ 375
TOTAL SELECTED CASH EXPENSES				**$ 941**
Family and regular hired labor, hours[2]				24.5

1 Includes fuel, repairs, pad operation and utilities.
2 Includes Pruning/Brush Removal - 11 hrs, Fertilizer Spreading - 0.3 hr, Spaying - 2.5 hr, Mowing - 1 hr and Repairs and Supervision - 9.75 hr.

See Michigan State University Extension Bulletins E-1108, January 1997, "Cost of Producing Tart Cherries in Northwestern Michigan" and E-852, 1996, "Fertilizing Fruit Crops" or the "New Jersey Commercial Tree Fruit Production Guide 2001" available at http://www.rce.rutgers.edu/pubs/treefruitguide/index.html or by calling 732-932-9762 for more detail.

Cherries, Sweet

Processing, Machine Harvested
Planting Year

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
TOTAL REVENUE				**$ -**
CASH EXPENSES				
Trees	105	trees	$ 7.50	$ 788
Fertilizer				$ 227
Chemicals[1]				$ 251
Tree guards	105	guards	$ 0.35	$ 37
Sod cover seed				$ 63
Straw dupplies				$ 79
Custom hire - site prep				$ 450
TOTAL SELECTED CASH EXPENSES				**$ 1,894**
Family and regular hired labor, hours[2]				30.0

1 Includes nematode, miticide, mouse bait, deer spray, and weed control.
2 Includes Mulching - 6 hr, Roots & rock pick-up - 8 hr, Tillage - 4 hr, Marking orchard - 5 hr, Planting trees - 2 hr, Deer control - 2 hr, Fertilizer and chemial application and cover seeding - 3 hr.

See Michigan State University Extension Bulletin E-852, 1996, "Fertilizing Fruit Crops" or the "New Jersey Commercial Tree Fruit Production Guide 2001" available at http://www.rce.rutgers.edu/pubs/treefruitguide/index.html or by calling 732-932-9762 for more detail.

Cherries, Sweet

Processing, Machine Harvested
Nonbearing Year

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
TOTAL REVENUE				**$ -**
CASH EXPENSES				
Replacement trees				$ 23
Fertilizer	105	trees	$ 0.38	$ 40
Chemicals				
Insect control				$ 7
Disease control				$ 40
Weed control				$ 18
Deer control	105	trees	$ 0.45	$ 47
Mouse control				$ 8
TOTAL SELECTED CASH EXPENSES				**$ 183**
Family and regular hired labor, hours[1]				11.0

1 Includes Pruning - 3 hr, Replanting, fertilizer and chemical application - 4 hr, Deer control - 2 hr, Mowing - 1 hr, Painting trunks, misc - 1 hr.

See Michigan State University Extension Bulletin E-852, 1996, "Fertilizing Fruit Crops" or the "New Jersey Commercial Tree Fruit Production Guide 2001" available at http://www.rce.rutgers.edu/pubs/treefruitguide/index.html or by calling 732-932-9762 for more detail.

Cherries, Sweet

Processing, Machine Harvested
Full Bearing

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Processing cherries	6,500	lb	$ 0.25	$ 1,625
TOTAL REVENUE				**$ 1,625**
CASH EXPENSES				
Fertilizer				$ 42
Lime				$ 27
Weed control				$ 19
Spray program				$ 245
Borer spray				$ 8
Scouting/consulting				$ 25
Ethryl				$ 13
Bee rental				$ 68
Custom harvest				$ 229
Trucking	6,500	lb	$ 0.01	$ 65
Marketing	6,500	lb	$ 0.07	$ 423
TOTAL SELECTED CASH EXPENSES				**$ 1,164**
Family and regular hired labor, hours[1]				20.2

1 Includes Pruning/Brush Removal - 11 hrs, Fertilizer Spreading - 0.5 hr, Spraying - 2.7 hr, Mowing - 1 hr and Repairs and Supervision - 5 hr.

See Michigan State University Extension Bulletin E-852, 1996, "Fertilizing Fruit Crops" or the "New Jersey Commercial Tree Fruit Production Guide 2001" available at http://www.rce.rutgers.edu/pubs/treefruitguide/index.html or by calling 732-932-9762 for more detail.

Peppers, Bell

Fresh Market
Non-irrigated

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Peppers	600	30 lb	$ 8.00	$ 4,800
TOTAL REVENUE				**$ 4,800**
CASH EXPENSES				
Plants	12	1000	$ 40.00	$ 480
Fertilizer				
Nitrogen	140	lb	$ 0.25	$ 35
Phosphate	60	lb	$ 0.18	$ 11
Potash	180	lb	$ 0.13	$ 23
Lime	0.5	ton	$ 20.00	$ 10
Boxes	600	boxes	$ 1.40	$ 840
Herbicides[1,2]				$ 36
Insecticides[1,3]				$ 132
Fungicides[1,4]				$ 28
Gas, fuel, oil				$ 126
Equipment repairs				$ 145
Building repairs				$ 26
Custom hire (spraying)				$ 24
Seasonal labor[5]	32	hr	$ 5.50	$ 176
Utilities, phone				$ 12
Trucking				$ 96
Marketing				$ 24
TOTAL SELECTED CASH EXPENSES				**$ 2,224**
Family and regular hired labor, hours				15.0

1 Refer to Michigan State University Extension bulletin E-312, "2001 Insect, Disease and Nematode Control for Commercial Vegetables" for more detail. Available at http://www.msue.msu.edu/pestpubs/E312/

2 Generally in 1 application.

3 Generally in 2 applications.

4 Generally in 5-6 applications.

5 Includes hoeing and harvesting labor.

Peppers, Bell

Fresh Market
Plastic over Beds, Staked and Tied, Drip Irrigated

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Peppers	1200	30 lb	$ 8.00	$ 9,600
TOTAL REVENUE				**$ 9,600**
CASH EXPENSES				
Plants	12	1000	$ 87.00	$ 1,044
Fertilizer				
Nitrogen[1]	50	lb	$ 0.25	$ 13
Phosphate[1]	65	lb	$ 0.18	$ 12
Potash[1]	100	lb	$ 0.13	$ 13
Lime[1]	0.5	ton	$ 20.00	$ 10
4-0-8 liquid[2]	350	gal	$ 1.20	$ 420
Boxes	1200	boxes	$ 1.40	$ 1,680
Plastic & drip tape				$ 350
Stakes	5600	stake	$ 0.08	$ 448
String for ties	55	100ft	$ 1.00	$ 55
Herbicides[3,4]				$ 36
Insecticides[3,5]				$ 132
Fungicides[3,6]				$ 28
Gas, fuel, oil[7]				$ 105
Equipment repairs				$ 230
Building repairs				$ 26
Custom hire (spraying)				$ 24
Seasonal labor	67	hr	$ 5.50	$ 369
Trucking				$ 124
Marketing				$ 28
TOTAL SELECTED CASH EXPENSES				**$ 5,146**
Family and regular hired labor, hours[8]				18.0

1 Applied before planting.

2 Applied after planting.

3 Refer to Michigan State University Extension bulletin E-312, "2001 Insect, Disease and Nematode Control for Commercial Vegetables" for more detail. Available at http://www.msue.msu.edu/pestpubs/E312/

4 Generally in 1 application.

5 Generally in 2 applications.

6 Generally in 5-6 applications.

7 Includes irrigation fuel.

8 Includes hoeing, staking & tying, stake and tie removal and harvesting labor.

Tomatoes

Fresh Market
Non-irrigated

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Tomato	1000	20 lb	$ 10.00	$ 10,000
TOTAL REVENUE				**$ 10,000**
CASH EXPENSES				
Plants	8	1000	$ 28.00	$ 224
Fertilizer				
Nitrogen	90	lb	$ 0.25	$ 23
Phosphate	75	lb	$ 0.18	$ 14
Potash	250	lb	$ 0.13	$ 33
Lime	0.4	ton	$ 20.00	$ 8
Boxes	1000	boxes	$ 1.20	$ 1,200
Herbicides[1,2]				$ 30
Insecticides[1,3]				$ 80
Fungicides[1,4]				$ 220
Gas, fuel, oil				$ 45
Equipment repairs				$ 52
Building repairs				$ 33
Custom hire (spraying)				$ 27
Seasonal labor[5]	720	hr	$ 5.50	$ 3,960
Utilities, phone				$ 35
Trucking				$ 185
Marketing				$ 140
TOTAL SELECTED CASH EXPENSES				**$ 6,308**
Family and regular hired labor, hours				25.0

1 Refer to Michigan State University Extension bulletin E-312, "2001 Insect, Disease and Nematode Control for Commercial Vegetables" for more detail. Available at http://www.msue.msu.edu/pestpubs/E312/

2 Generally in 2 applications.

3 Generally in 1 application.

4 Generally in 7-8 applications.

5 Includes hoeing and harvesting labor.

Tomatoes

Fresh Market
Plastic over Beds, Staked and Tied, Drip Irrigated

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Tomato	1500	20 lb	$ 10.00	$ 15,000
TOTAL REVENUE				**$ 15,000**
CASH EXPENSES				
Plants	5.5	1000	$ 56.00	$ 308
Fertilizer				
Nitrogen[1]	50	lb	$ 0.25	$ 13
Phosphate[1]	75	lb	$ 0.18	$ 14
Potash[1]	100	lb	$ 0.13	$ 13
Lime[1]	0.4	ton	$ 20.00	$ 8
4-0-8 liquid[2]	240	gal	$ 1.20	$ 288
Boxes	1500	boxes	$ 1.00	$ 1,500
Plastic & drip tape	5500	ft	$ 0.04	$ 220
Stakes	2800	stake	$ 0.16	$ 448
String for ties	55	100	$ 2.40	$ 132
Herbicides[3,4]				$ 30
Insecticides[3,5]				$ 80
Fungicides[3,6]				$ 220
Gas, fuel, oil				$ 45
Equipment repairs				$ 52
Building repairs				$ 33
Custom hire (spraying)				$ 27
Seasonal Labor[7]	738	hr	$ 5.50	$ 4,059
Utilities, phone				$ 35
Trucking				$ 200
Marketing				$ 240
TOTAL SELECTED CASH EXPENSES				**$ 7,964**
Family and regular hired labor, hours				25.0

1 Applied before planting.

2 Applied after planting.

3 Refer to Michigan State University Extension bulletin E-312, "2001 Insect, Disease and Nematode Control for Commercial Vegetables" for more detail. Available at http://www.msue.msu.edu/pestpubs/E312/

4 Generally in 2 applications.

5 Generally in 1 application

6 Generally in 7-8 applications.

7 Includes hoeing, staking & tying, stake and tie removal and harvesting labor.

Pumpkins

Jack-o-Lantern

	Quantity	Unit	Price per Unit	Total per Acre
REVENUE SOURCES				
Pumpkins	16	ton	$ 120.00	$ 1,920
TOTAL REVENUE				**$ 1,920**
CASH EXPENSES				
Seed	4	lb	$ 32.00	$ 128
Fertilizer				
Nitrogen	100	lb	$ 0.25	$ 25
Phosphate	50	lb	$ 0.18	$ 9
Potash	100	lb	$ 0.13	$ 13
Lime	0.5	ton	$ 20.00	$ 10
Herbicides[1,2]				$ 40
Insecticides[1,3]				$ 60
Fungicides[1,4]				$ 180
Gas, fuel, oil				$ 32
Equipment repairs				$ 85
Custom hire (spraying)	6	app	$ 9.00	$ 54
Seasonal labor[5]	70	hr	$ 5.50	$ 385
Utilities, phone				$ 6
Trucking				$ 300
Marketing				$ 45
TOTAL SELECTED CASH EXPENSES				**$ 1,372**
Family and regular hired labor, hours				30.0

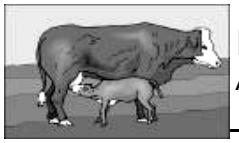
1 Refer to Michigan State University Extension bulletin E-312, "2001 Insect, Disease and Nematode Control for Commercial Vegetables" for more detail. Available at http://www.msue.msu.edu/pestpubs/E312/

2 Generally in 1 application.

3 Generally in 2 applications.

4 Generally in 4-5 applications.

5 Includes harvesting labor.



Beef Cow-Calf

April Calves Sold as Feeder Cattle

	Quantity	Unit	Price per Unit	Total per Cow & Calf
REVENUE SOURCES				
Steer sales	215	lb	$ 0.87	$ 187
0.43 Steers weaned @ 500				
Heifer sales	206	lb	$ 0.85	$ 175
0.43 Heifers weaned @ 480				
Cull cows	200	lb	$ 0.35	$ 70
20% rate 1000 lb cows				
TOTAL REVENUE				**$ 432**
CASH EXPENSES				
Purchased Feed				
Forage & concentrate				$ 18
Minerals, vitamins				$ 5
Supplements				$ 13
Breeding				$ 3
Vet & medicine				$ 15
Livestock supplies				$ 5
Fuel & oil				$ 6
Equipment & building repairs				$ 6
Utilities				$ 4
Hauling & trucking				$ 3
Marketing				$ 2
Replacement cow	0.20	hd	$ 900	$ 180
TOTAL SELECTED CASH EXPENSES				**$ 260**
Family and regular hired labor, hours				8.0
Corn grain equivalent, bu (as fed)				3.0
Dry hay equivalent, tons (as fed)				2.0
Corn silage, tons (as fed)				0.0
Pasture (AUM)[1]				8.3

1 Assumes cow weight of 1200 lb and average calf weight of 300 lb with both on pasture for 165 days.

Stocker Calf - Colored

Fall Purchase, Feed:Gain - 10 lb, Winter Drylot Gain - 1.5 lb/day, Summer Grazing - 2 lb/day

	Quantity	Unit	Price per Unit	Total per Steer
REVENUE SOURCES				
Steer sales	883	lb	$ 0.78	$ 684
TOTAL REVENUE				**$ 684**
CASH EXPENSES				
Steer purchase	400	lb	$ 0.93	$ 372
3% Death loss	12	lb	$ 0.93	$ 11
Feed - Winter Drylot				
Minerals, vitamins	182	days	$ 0.04	$ 7
Feed - Spring/Summer Grazing				
Minerals, ionophores	123	days	$ 0.07	$ 8
Vet & medicine				$ 14
Implants				$ 2
Parasite control				$ 5
Equipment & building repairs[1]				$ 10
Marketing				
Sales commissions				$ 8
Transportation				$ 5
Beef check-off				$ 1
Interest				
Cattle[2]	9.0%			$ 29
TOTAL SELECTED CASH EXPENSES				**$ 472**
Family and regular hired labor, hours[3]				4.1
Corn grain equivalent, bu (as fed)				12.2
Dry hay equivalent, tons (as fed)				1.2
Corn silage, tons (as fed)				0.0
Pasture (AUM)[4]				3.0

1 Yardage costs are generally charged at $0.29 per head per day. This charge includes equipment and building repair, labor, fuel and bedding costs as well as a manure credit.

2 Assumes interest is charged on purchase price plus death loss cost for the fraction of the year the steer is on feed.

3 Uses time per animal per day (about 1 minute) from feedlot budgets times a factor of 1.25 to account for fewer economies of scale in stocker operations and additional treatment time in the winter drylot period. Assumes 0.5 hour per steer for the summer.

4 Assumes an average weight of 760 lb on pasture for 120 days.

Yearling Feeder Steer - Colored

70% Grade Choice, Feed:Gain - 7 lb, Ave Daily Gain - 3 lb

See Footnote 2 for adjustment factors for heavier placements and heavier heifers.

	Quantity	Unit	Price per Unit	Total per Steer
REVENUE SOURCES				
Steer sales[1]	1275	lb	$ 0.76	$ 969
TOTAL REVENUE				**$ 969**
CASH EXPENSES				
Steer purchase[2]	725	lb	$ 0.83	$ 602
1% Death loss[3]	7.25	lb	$ 0.83	$ 6
Purchased Feed				
Soybean meal 48% (as fed)	194	days	$ 0.09	$ 17
Urea	194	days	$ 0.01	$ 2
Minerals, vitamins	194	days	$ 0.04	$ 8
Ionophore	194	days	$ 0.02	$ 4
Vet & medicine				$ 8
Implants	194	days	$0.04	$ 8
Equipment & building repairs[4]				$ 11
Marketing				
Sales commissions				$ 8
Transportation				$ 5
Beef check-off				$ 1
Interest				
Cattle[5]	9.0%			$ 29
TOTAL SELECTED CASH EXPENSES				**$ 709**
Family and regular hired labor, hours[4]				3.1
Corn grain equivalent, bu (as fed)				69.8
Dry hay equivalent, tons (as fed)				0.0
Corn silage, tons (as fed)				1.1

1 Shrunk weight at feedlot.

2 For every 100 lb increase in purchase weight, increase feed per lb of gain by 0.5 lb and increase sale weight by 25 lb. For heifers, reduce weight on feed by 10%, weight off feed by 10%, ADG by 10% and increase feed required per lb gain by 5%.

3 Majority of death loss occurs immediately after purchase. Budget applies to number of head sold, not number of head purchased.

4 Yardage costs are generally charged at $0.29 per head per day. This charge includes equipment and building repair, labor, fuel and bedding costs as well as a manure credit.

5 Assumes interest is charged on purchase price plus death loss cost for the fraction of the year the steer is on feed.

Picture courtesy of Farm Sanctuary.

Feeder Steer Calf - Holstein

70% Grade Choice, Feed:Gain - 6.8 lb, Ave Daily Gain - 2.9 lb

	Quantity	Unit	Price per Unit	Total per Steer
REVENUE SOURCES				
Steer sales[1]	1250	lb	$ 0.70	$ 875
TOTAL REVENUE				**$ 875**
CASH EXPENSES				
Steer purchase	400	lb	$ 0.79	$ 316
2% Death loss[2]	8	lb	$ 0.79	$ 6
Purchased Feed				
Soybean meal 48% (as fed)	310	days	$ 0.11	$ 34
Urea	310	days	$ 0.01	$ 3
Minerals, vitamins	310	days	$ 0.03	$ 9
Ionophore	310	days	$ 0.02	$ 7
Vet & medicine				$ 14
Implants	310	days	$0.04	$ 12
Equipment & building repairs[3]				$ 17
Marketing				
Sales commissions				$ 8
Transportation				$ 5
Beef check-off				$ 1
Interest				
Cattle4	9.0%			$ 25
TOTAL SELECTED CASH EXPENSES				**$ 458**
Family and regular hired labor, hours[3]				5.0
Corn grain equivalent, bu (as fed)				101.4
Dry hay equivalent, tons (as fed)				0.0
Corn silage, tons (as fed)				1.5

1 Shrunk weight at feedlot.

2 Majority of death loss occurs immediately after purchase. Budget applies to number of head sold, not number of head purchased.

3 Yardage costs are generally charged at $0.29 per head per day. This charge includes equipment and building repair, labor, fuel and bedding costs as well as a manure credit.

4 Assumes interest is charged on purchase price plus death loss cost for the fraction of the year the steer is on feed.

Ewe and Lambs

March - April lambing

	Quantity	Unit	Price per Unit	Total per Ewe & Lambs
REVENUE SOURCES				
Market lambs	195	lb	$ 0.70	$ 137
1.5 hd @ 130				
Cull ewes	21	lb	$ 0.30	$ 6
0.15 hd @ 140				
Ewe's wool	8	lb	$ 0.25	$ 2
1 hd @ 8				
TOTAL REVENUE				**$ 145**
CASH EXPENSES				
Purchased Feed				
Soybean meal 48% (as fed)	0.4	cwt	$ 9.00	$ 4
Minerals, vitamins				$ 3
Vet & medicine				$ 3
Livestock supplies				$ 6
Gas, fuel & oil				$ 2
Equipment repairs				$ 1
Building repairs				$ 1
Utilities & phone				$ 1
Hauling, marketing[1]				$ 4
Shearing				$ 1
Miscellaneous				$ 3
Ewe replacement	0.2	hd	$110.00	$ 22
Ram replacement	0.01	hd	$300.00	$ 3
TOTAL SELECTED CASH EXPENSES				**$ 52**
Family and regular hired labor, hours				4.0
Corn grain equivalent, bu (as fed)				8.0
Dry hay equivalent, tons (as fed)				1.0

1 Includes $2.50 per lamb marketed and $0.50 per cull ewe marketed.

Finishing Lamb

	Quantity	Unit	Price per Unit	Total per Lamb
REVENUE SOURCES				
Marketlamb	140	lb	$ 0.80	$ 112
Wool	3	lb	$ 0.10	$ 0
TOTAL REVENUE				**$ 112**
CASH EXPENSES				
Feeder lamb	90	lb	$ 0.80	$ 72
2% Death loss[1]	1.8	lb	$ 0.80	$ 1
Purchased Feed				
Soybean meal 48% (as fed)	0.4	cwt	$ 9.00	$ 4
Minerals, vitamins				$ 4
Vet & medicine				$ 2
Livestock supplies				$ 4
Gas, fuel & oil				$ 1
Equipment repairs				$ 1
Building repairs				$ 0
Utilities & phone				$ 5
Hauling, marketing				$ 4
Shearing				$ 2
Miscellaneous				$ 1
TOTAL SELECTED CASH EXPENSES				**$ 100**
Family and regular hired labor, hours				1.0
Corn grain equivalent, bu (as fed)				7.2
Dry hay equivalent, tons (as fed)				0.0

1 Majority of death loss occurs immediately after purchase.

Dairy Cow

18,000 lbs Milk Sold

	Quantity	Unit	Price per Unit	Total per Cow
REVENUE SOURCES				
Milk	180	cwt	$ 13.00	$ 2,340
Cull cows	400	lb	$ 0.30	$ 120
32% Rate, 1250 lb Cows				
Bull calf[1]	0.4	hd	$ 80.00	$ 32
Heifer calf[1]	0.3	hd	$ 120.00	$ 36
TOTAL REVENUE				**$ 2,528**
CASH EXPENSES				
Purchased Feed				
Soybean meal 48% (as fed)	0.6	ton	$ 180	$ 108
Other feeds				$ 350
Breeding				$ 30
Vet & medicine				$ 100
Livestock supplies[2]				$ 110
Gas, fuel & oil				$ 20
Equipment repairs				$ 82
Building repairs				$ 53
Custom hire[3]				$ 12
Utilities & phone				$ 45
Milk trucking	180	cwt	$ 0.44	$ 79
Marketing[4]				$ 40
Promotion	180	cwt	$ 0.15	$ 27
Miscellaneous[5]				$ 25
TOTAL SELECTED CASH EXPENSES				**$ 1,081**
Family and regular hired labor, hours				62.0
Corn grain equivalent, bu (as fed)[6]				67.7
Dry hay equivalent, tons (as fed)[7]				9.0
Corn silage, tons (as fed)[7]				11.1

1 Assumes 14 month calving interval, 90% of calves born alive, 95% survive the first year, 55% born are bulls and 45% heifers.

2 Includes primarily milking and parlor supplies, tags, bedding, and pest control.

3 Includes hoof trimming and trucking for cull cows, calves and dead stock.

4 Includes dues and costs to market cull cows and calves.

5 Includes insurance, lease and other costs.

6 Includes 10% increase to account for shrink, storage and feeding losses and refusals.

7 Includes 30% increase to account for shrink, storage and feeding losses and refusals.

Dairy Cow

22,000 lbs Milk Sold

	Quantity	Unit	Price per Unit	Total per Cow
REVENUE SOURCES				
Milk	220	cwt	$ 13.00	$ 2,860
Cull cows	400	lb	$ 0.30	$ 120
32% Rate, 1250 lb Cows				
Bull calf[1]	0.4	hd	$ 80.00	$ 32
Heifer calf[1]	0.3	hd	$ 120.00	$ 36
TOTAL REVENUE				**$ 3,048**
CASH EXPENSES				
Purchased Feed				
Soybean meal 48% (as fed)	0.9	ton	$ 180	$ 162
Other feeds				$ 396
Breeding				$ 30
Vet & medicine				$ 110
Livestock supplies[2]				$ 130
Gas, fuel & oil				$ 20
Equipment repairs				$ 82
Building repairs				$ 53
Custom hire[3]				$ 12
Utilities & phone				$ 50
Milk trucking	220	cwt	$ 0.44	$ 97
Marketing[4]				$ 40
Promotion	220	cwt	$ 0.15	$ 33
Miscellaneous[5]				$ 25
TOTAL SELECTED CASH EXPENSES				**$ 1,240**
Family and regular hired labor, hours				62.0
Corn grain equivalent, bu (as fed)[6]				95.6
Dry hay equivalent, tons (as fed)[7]				8.4
Corn silage, tons (as fed)[7]				10.3

1 Assumes 14 month calving interval, 90% of calves born alive, 95% survive the first year, 55% born are bulls and 45% heifers.

2 Includes primarily milking and parlor supplies, tags, bedding, and pest control.

3 Includes hoof trimming and trucking for cull cows, calves and dead stock.

4 Includes dues and costs to market cull cows and calves.

5 Includes insurance, lease and other costs.

6 Includes 10% increase to account for shrink, storage and feeding losses and refusals.

7 Includes 30% increase to account for shrink, storage and feeding losses and refusals.

Dairy Cow

26,000 lbs Milk Sold

	Quantity	Unit	Price per Unit	Total per Cow
REVENUE SOURCES				
Milk	260	cwt	$13.00	$ 3,380
Cull cows	400	lb	$0.30	$ 120
32% Rate, 1250 lb Cows				
Bull calf[1]	0.4	hd	$80.00	$ 32
Heifer calf[1]	0.3	hd	$ 120.00	$ 36
TOTAL REVENUE				**$ 3,568**
CASH EXPENSES				
Purchased Feed				
Soybean meal 48% (as fed)	1.1	ton	$ 180	$ 198
Other feeds				$ 460
Breeding				$ 30
Vet & medicine				$ 125
bST[2]	14	doses	$5.80	$ 81
Livestock supplies[3]				$ 150
Gas, fuel & oil				$ 20
Equipment repairs				$ 82
Building repairs				$ 53
Custom hire[4]				$ 12
Utilities & phone				$ 68
Milk trucking	260	cwt	$0.44	$ 114
Marketing[5]				$ 40
Promotion	260	cwt	$ 0.15	$ 39
Miscellaneous[6]				$ 25
TOTAL SELECTED CASH EXPENSES				**$ 1,498**
Family and regular hired labor, hours				62.0
Corn grain equivalent, bu (as fed)[7]				115.5
Dry hay equivalent, tons (as fed)[8]				8.1
Corn silage, tons (as fed)[8]				9.9

1 Assumes 14 month calving interval, 90% of calves born alive, 95% survive the first year, 55% born are bulls and 45% heifers.

2 Assumes cow is on bST for approximately half of the year.

3 Includes primarily milking and parlor supplies, tags, bedding, and pest control.

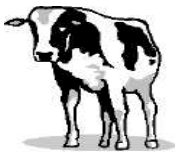
4 Includes hoof trimming and trucking for cull cows, calves and dead stock.

5 Includes dues and costs to market cull cows and calves.

6 Includes insurance, lease and other costs.

7 Includes 10% increase to account for shrink, storage and feeding losses and refusals.

8 Includes 30% increase to account for shrink, storage and feeding losses and refusals.



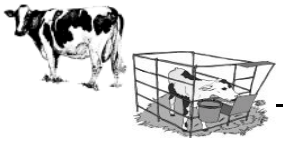
Dairy Heifer

Birth to Freshening at 24 Months of Age

	Quantity	Unit	Price per Unit	Total per Heifer
REVENUE SOURCES				
Assume that heifer is raised for use within herd.				
TOTAL REVENUE				**$ -**
CASH EXPENSES				
Purchased Feed				
Milk Replacer	60	lb	$ 0.78	$ 47
Calf Starter	100	lb	$ 0.20	$ 20
Soybean meal 48% (as fed)	0.3	ton	$ 180	$ 63
Mineral/Vitamin Mix	132	lb	$ 0.23	$ 30
Breeding				$ 25
Vet & medicine				$ 22
Livestock supplies				$ 20
Gas, fuel & oil				$ 10
Equipment repairs				$ 40
Building repairs				$ 20
Utilities & phone				$ 30
Miscellaneous				$ 8
TOTAL SELECTED CASH EXPENSES				**$ 335**
Family and regular hired labor, hours				15.0
Corn grain equivalent, bu (as fed)[1]				22.6
Dry hay equivalent, tons (as fed)[2]				2.1
Corn silage, tons (as fed)[2]				6.4

1 Includes 10% increase to account for shrink, storage and feeding losses and refusals.

2 Includes 30% increase to account for shrink, storage and feeding losses and refusals.



Dairy Cow and Replacement[1]

18,000 lbs Milk Sold

	Quantity	Unit		Price per Unit		Total per Cow & Rplcmt
REVENUE SOURCES						
Milk	180	cwt	$	13.00	$	2,340
Cull cows	400	lb	$	0.30	$	120
32% Rate, 1250 lb Cows						
Bull calf	0.4	hd	$	80.00	$	32
TOTAL REVENUE					**$**	**2,492**
CASH EXPENSES						
Purchased Feed						
Milk replacer & calf starter					$	30
Soybean meal 48% (as fed)	0.8	ton	$	180	$	136
Other feeds					$	364
Breeding					$	35
Vet & medicine					$	110
Livestock supplies[2]					$	119
Gas, fuel & oil					$	25
Equipment repairs					$	100
Building repairs					$	62
Custom hire[3]					$	12
Utilities & phone					$	59
Milk trucking	180	cwt	$	0.44	$	79
Marketing[4]					$	40
Promotion	180	cwt	$	0.15	$	27
Miscellaneous[5]					$	29
TOTAL SELECTED CASH EXPENSES					**$**	**1,226**
Family and regular hired labor, hours						68.8
Corn grain equivalent, bu (as fed)[6]						77.9
Dry hay equivalent, tons (as fed)[7]						9.9
Corn silage, tons (as fed)[7]						14.0

1 Assumes 0.9 replacement heifers per cow.

2 Includes primarily milking and parlor supplies, tags, bedding, and pest control.

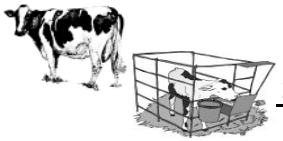
3 Includes hoof trimming and trucking for cull cows, calves and dead stock.

4 Includes dues and costs to market cull cows and calves.

5 Includes insurance, lease and other costs.

6 Includes 10% increase to account for shrink, storage and feeding losses and refusals.

7 Includes 30% increase to account for shrink, storage and feeding losses and refusals.



Dairy Cow and Replacement[1]

22,000 lbs Milk Sold

	Quantity	Unit		Price per Unit		Total per Cow & Rplcmt
REVENUE SOURCES						
Milk	220	cwt	$	13.00	$	2,860
Cull cows	400	lb	$	0.30	$	120
32% Rate, 1250 lb Cows						
Bull calf	0.4	hd	$	80.00	$	32
TOTAL REVENUE					**$**	**3,012**
CASH EXPENSES						
Purchased Feed						
Milk replacer & calf starter					$	30
Soybean meal 48% (as fed)	1.1	lb	$	180	$	190
Other feeds					$	410
Breeding					$	35
Vet & medicine					$	120
Livestock supplies[2]					$	139
Gas, fuel & oil					$	25
Equipment repairs					$	100
Building repairs					$	62
Custom hire[3]					$	12
Utilities & phone					$	64
Milk trucking	220	cwt	$	0.44	$	97
Marketing[4]					$	40
Promotion	220	cwt	$	0.15	$	33
Miscellaneous[5]					$	29
TOTAL SELECTED CASH EXPENSES					**$**	**1,384**
Family and regular hired labor, hours						68.8
Corn grain equivalent, bu (as fed)[6]						105.8
Dry hay equivalent, tons (as fed)[7]						9.3
Corn silage, tons (as fed)[7]						13.2

1 Assumes 0.9 replacement heifers per cow.

2 Includes primarily milking and parlor supplies, tags, bedding, and pest control.

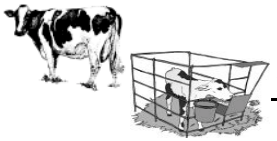
3 Includes hoof trimming and trucking for cull cows, calves and dead stock.

4 Includes dues and costs to market cull cows and calves.

5 Includes insurance, lease and other costs.

6 Includes 10% increase to account for shrink, storage and feeding losses and refusals.

7 Includes 30% increase to account for shrink, storage and feeding losses and refusals.



Dairy Cow and Replacement[1]

26,000 lbs Milk Sold

	Quantity	Unit		Price per Unit		Total per Cow & Rplcmt
REVENUE SOURCES						
Milk	260	cwt	$	13.00	$	3,380
Cull cows	400	lb	$	0.30	$	120
32% Rate, 1250 lb Cows						
Bull calf	0.4	hd	$	80.00	$	32
TOTAL REVENUE					**$**	**3,532**
CASH EXPENSES						
Purchased Feed						
Milk replacer & calf starter					$	30
Soybean meal 48% (as fed)	1.3	ton	$	180.00	$	226
Other feeds					$	474
Breeding					$	35
Vet & medicine					$	135
bST[2]	14	doses	$	5.80	$	81
Livestock supplies[3]					$	159
Gas, fuel & oil					$	25
Equipment repairs					$	100
Building repairs					$	62
Custom hire[4]					$	12
Utilities & phone					$	82
Milk trucking	260	cwt	$	0.44	$	114
Marketing[5]					$	40
Promotion	260	cwt	$	0.15	$	39
Miscellaneous[6]					$	29
TOTAL SELECTED CASH EXPENSES					**$**	**1,642**
Family and regular hired labor, hours						68.8
Corn grain equivalent, bu (as fed)[7]						125.7
Dry hay equivalent, tons (as fed)[8]						9.0
Corn silage, tons (as fed)[8]						12.8

1 Assumes 0.9 replacement heifers per cow.
2 Assumes cow is on bST for approximately half of the year.
3 Includes milking and parlor supplies, tags, bedding, and pest control.
4 Includes hoof trimming and trucking for cull cows, calves and dead stock.
5 Includes dues and costs to market cull cows and calves.
6 Includes insurance, lease and other costs.
7 Includes a 10% increase to account for shrink, storage and feeding losses and refusals.
8 Includes a 30% increase to account for shrink, storage and feeding losses and refusals.

Dairy Cow and Replacement[1]

16,000 lbs Milk, Management Intensive Grazing[2]

	Quantity	Unit		Price per Unit		Total per Cow & Rplcmt
REVENUE SOURCES						
Milk	160	cwt	$	13.00	$	2,080
Cull cows	308	lb	$	0.30	$	92
28% Rate, 1100 lb Cows						
Bull calf	0.4	hd	$	80.00	$	32
TOTAL REVENUE					**$**	**2,204**
CASH EXPENSES						
Purchased Feed						
Milk replacer & calf starter					$	30
Soybean meal 48% (as fed)	0.4	lb	$	180	$	72
Other feeds					$	378
Breeding					$	25
Vet & medicine					$	50
Livestock supplies[3]					$	90
Gas, fuel & oil					$	10
Equipment repairs					$	65
Building repairs					$	20
Custom hire[4]					$	8
Utilities & phone					$	45
Milk trucking	160	cwt	$	0.44	$	70
Marketing[5]					$	40
Promotion	160	cwt	$	0.15	$	24
Miscellaneous[6]					$	25
TOTAL SELECTED CASH EXPENSES					**$**	**952**
Family and regular hired labor, hours						46.8
Corn grain equivalent, bu (as fed)[7]						70.0
Dry hay equivalent, tons (as fed)[8,9]						7.5
Corn silage, tons (as fed)[8]						6.0

1 Assumes 0.9 replacement heifers per cow.
2 Milks year around and approximately 2/3 of cows calve in spring.
3 Includes milking and parlor supplies, tags, bedding, and pest control.
4 Includes hoof trimming and trucking for cull cows, calves and dead stock.
5 Includes dues and costs to market cull cows and calves.
6 Includes insurance, lease and other costs.
7 Includes a 10% increase to account for shrink, storage and feeding losses and refusals.
8 Includes a 30% increase to account for shrink, storage and feeding losses and refusals.
9 Dry hay equivalent includes pasture yield.

Swine, Farrow to Finish

High Production

2.26 Litters per Yr, 20.28 Pigs per Sow per Yr, AI, Raise Own Replacement Gilts

	Quantity	Unit	Price per Unit	Total per Sow & Litters
REVENUE SOURCES				
Finished hogs[1]	52.68	cwt	$ 42	$ 2,213
19.88 hd @ 265 lb				
Sows[2]	1.6	cwt	$ 27	$ 43
0.4 hd @ 400 lb				
TOTAL REVENUE				**$ 2,256**
CASH EXPENSES				
Purchased feed				
Soybean meal 44%	32.5	cwt	$ 9	$ 293
Minerals, vitamins & other feeds				$ 258
Breeding				$ 24
Vet & medicine				$ 62
Livestock supplies				$ 30
Gas, fuel & oil				$ 20
Equipment repairs				$ 60
Building repairs				$ 10
Utilities & phone				$ 55
Hauling, marketing				$ 65
Miscellaneous				$ 28
TOTAL SELECTED CASH EXPENSES				**$ 904**
Family and regular hired labor, hours				33.3
Corn grain equivalent, bu (as fed)				212.0
Capital gains income included above				$ 43

1 Retain 0.4 gilts per sow for replacement.

2 Sow price is $15 less than market hog price.

Swine, Farrow to Finish

Average Production

2.15 Litters per Yr, 18.14 Pigs per Sow per Yr, AI, Raise Own Replacement Gilts

	Quantity	Unit	Price per Unit	Total per Sow & Litters
REVENUE SOURCES				
Finished hogs[1]	47.01	cwt	$ 42	$ 1,974
17.74 hd @ 265 lb				
Sows[2]	1.6	cwt	$ 27	$ 43
0.4 hd @ 400 lb				
TOTAL REVENUE				**$ 2,018**
CASH EXPENSES				
Purchased feed				
Soybean meal 44%	32.0	cwt	$ 9	$ 288
Minerals, vitamins & other feeds				$ 252
Breeding				$ 25
Vet & medicine				$ 59
Livestock supplies				$ 27
Gas, fuel & oil				$ 20
Equipment repairs				$ 57
Building repairs				$ 10
Utilities & phone				$ 55
Hauling, marketing				$ 58
Miscellaneous				$ 28
TOTAL SELECTED CASH EXPENSES				**$ 879**
Family and regular hired labor, hours				30.0
Corn grain equivalent, bu (as fed)				208.5
Capital gains income included above				$ 43

1 Retain 0.4 gilts per sow for replacement.

2 Sow price is $15 less than market hog price.

Swine, Breed to Feeder Pig

High Production
2.26 Litters per Yr, 20.58 Feeder Pigs per Sow per Yr, AI, Buy Replacement Gilts

	Quantity	Unit	Price per Unit	Total per Sow & Litters
REVENUE SOURCES				
Feeder pigs	20.58	hd	$ 44	$ 899
20.58 hd @ 50 lb				
Sows[1]	1.6	cwt	$ 27	$ 43
0.4 hd @ 400 lb				
TOTAL REVENUE				**$ 943**
CASH EXPENSES				
Purchased feed				
Soybean meal 44%	6.9	cwt	$ 9	$ 62
Minerals, vitamins & other feeds				$ 120
Breeding				$ 24
Vet & medicine				$ 40
Livestock supplies				$ 19
Gas, fuel & oil				$ 4
Equipment repairs				$ 33
Building repairs				$ 4
Utilities & phone				$ 34
Hauling, marketing				$ 15
Replacement gilts	0.4	hd	$ 186	$ 75
Miscellaneous				$ 27
TOTAL SELECTED CASH EXPENSES				**$ 458**
Family and regular hired labor, hours				22.6
Corn grain equivalent, bu (as fed)				37.3
Capital gains income included above				$ 43

1 Sow price is $15 less than market hog price.

Swine, Breed to Feeder Pig

Average Production
2.15 Litters per Yr, 18.67 Feeder Pigs per Sow per Yr, AI, Buy Replacement Gilts

	Quantity	Unit	Price per Unit	Total per Sow & Litters
REVENUE SOURCES				
Feeder pigs	18.67	hd	$ 44	$ 816
18.67 hd @ 50 lb				
Sows[1]	1.6	cwt	$ 27	$ 43
0.4 hd @ 400 lb				
TOTAL REVENUE				**$ 859**
CASH EXPENSES				
Purchased feed				
Soybean meal 44%	6.9	cwt	$ 9	$ 62
Minerals, vitamins & other feeds				$ 117
Breeding				$ 25
Vet & medicine				$ 40
Livestock supplies				$ 18
Gas, fuel & oil				$ 5
Equipment repairs				$ 32
Building repairs				$ 4
Utilities & phone				$ 36
Hauling, marketing				$ 14
Replacement gilts	0.4	hd	$ 186	$ 75
Miscellaneous				$ 28
TOTAL SELECTED CASH EXPENSES				**$ 456**
Family and regular hired labor, hours				20.0
Corn grain equivalent, bu (as fed)				37.3
Capital gains income included above				$ 43

1 Sow price is $15 less than market hog price.

Swine, Feeder Pig to Finish

High Production

100 Pigs

	Quantity	Unit	Price per Unit	Total per Pig
REVENUE SOURCES				
Finished hogs	265	cwt	$ 42	$ 11,130
100 hd @ 265 lb				
1.5% Death loss	1.5	hd	$ 42	$ (167)
TOTAL REVENUE				**$ 10,963**
CASH EXPENSES				
Feeder pigs[1]	100	hd	$ 44	$ 4,370
Purchased Feed				
Soybean meal 44%	123.7	cwt	$ 9	$ 1,113
Minerals, vitamins & other feeds				$ 637
Vet & medicine				$ 150
Livestock supplies				$ 50
Gas, fuel & oil				$ 80
Equipment repairs				$ 130
Building repairs				$ 33
Utilities & phone				$ 100
Hauling, marketing				$ 314
Miscellaneous				$ 3
TOTAL SELECTED CASH EXPENSES				**$ 6,980**
Family and regular hired labor, hours				50.0
Corn grain equivalent, bu (as fed)				841.3

1 Feeder pigs are priced at 77% of lean price. Market hog price ($42) is assumed to be paid on a 74% lean hog. Lean price is $42/.74 or $61.

Swine, Feeder Pig to Finish

Average Production

100 Pigs

	Quantity	Unit	Price per Unit	Total per Pig
REVENUE SOURCES				
Finished hogs	265	cwt	$ 42	$ 11,130
100 hd @ 265 lb				
2.8% Death loss	2.8	hd	$ 42	$ (312)
TOTAL REVENUE				**$ 10,818**
CASH EXPENSES				
Feeder pigs[1]	100	hd	$ 44	$ 4,370
Purchased Feed				
Soybean meal 44%	135.2	cwt	$ 9	$ 1,217
Minerals, vitamins & other feeds				$ 696
Vet & medicine				$ 150
Livestock supplies				$ 50
Gas, fuel & oil				$ 80
Equipment repairs				$ 130
Building repairs				$ 33
Utilities & phone				$ 100
Hauling, marketing				$ 310
Miscellaneous				$ 2
TOTAL SELECTED CASH EXPENSES				**$ 7,139**
Family and regular hired labor, hours				50.0
Corn grain equivalent, bu (as fed)				919.2

1 Feeder pigs are priced at 77% of lean price. Market hog price ($42) is assumed to be paid on a 74% lean hog. Lean price is $42/.74 or $61.

Swine, Breed to Wean[1]

High Production
2.26 Litters per Yr, 20.79 Pigs Weaned per Sow per Yr, AI, Buy Replacement Gilts

	Quantity	Unit	Price per Unit	Total per Sow & Litters
REVENUE SOURCES				
Weaned pigs	20.79	hd	$ 30	$ 625
Cull sows[2]	1.6	cwt	$ 27	$ 43
0.4 hd @ 400 lb				
TOTAL REVENUE				**$ 669**
CASH EXPENSES				
Purchased feed				
Soybean meal 44%	3.8	cwt	$ 9	$ 34
Minerals, vitamins & other feeds				$ 44
Breeding				$ 24
Vet & medicine				$ 21
Livestock supplies				$ 16
Gas, fuel & oil				$ 3
Equipment repairs				$ 28
Building repairs				$ 3
Utilities & phone				$ 29
Hauling, marketing				$ 13
Replacement gilts	0.4	hd	$ 186	$ 75
Miscellaneous				$ 23
TOTAL SELECTED CASH EXPENSES				**$ 313**
Family and regular hired labor, hours				20.4
Corn grain equivalent, bu (as fed)				25.3
Capital gains income included above				$ 43

1 Pigs are weaned at 18 days of age and 10 lb.

2 Sow price is $15 less than market hog price.

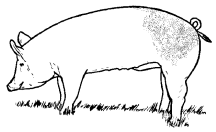
Swine, Breed to Wean[1]

Average Production
2.15 Litters per Yr, 19.14 Pigs Weaned per Sow per Yr, AI, Buy Replacement Gilts

	Quantity	Unit	Price per Unit	Total per Sow & Litters
REVENUE SOURCES				
Weaned pigs	19.14	hd	$ 30	$ 576
Cull sows[2]	1.6	cwt	$ 27	$ 43
0.4 hd @ 400 lb				
TOTAL REVENUE				**$ 619**
CASH EXPENSES				
Purchased feed				
Soybean meal 44%	3.7	cwt	$ 9	$ 34
Minerals, vitamins & other feeds				$ 44
Breeding				$ 25
Vet & medicine				$ 21
Livestock supplies				$ 15
Gas, fuel & oil				$ 4
Equipment repairs				$ 28
Building repairs				$ 4
Utilities & phone				$ 31
Hauling, marketing				$ 12
Replacement gilts	0.4	hd	$ 186	$ 75
Miscellaneous				$ 23
TOTAL SELECTED CASH EXPENSES				**$ 314**
Family and regular hired labor, hours				18.2
Corn grain equivalent, bu (as fed)				25.2
Capital gains income included above				$ 43

1 Pigs are weaned at 18 days of age and 10 lb.

2 Sow price is $15 less than market hog price.



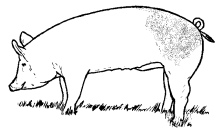
Swine, Wean to Finish

High Production

100 Pigs, 3.06 lbs feed per lb gain

	Quantity	Unit	Price per Unit	Total per Pig
REVENUE SOURCES				
Finished hogs	265	cwt	$ 42	$ 11,130
100 hd @ 265 lb				
2.49% Death loss	2.49	hd	$ 42	$ (277)
TOTAL REVENUE				**$ 10,853**
CASH EXPENSES				
Weaned pigs[1]	100	hd	$ 30	$ 3,008
Purchased Feed				
Soybean meal 44%	139.0	cwt	$ 9	$ 1,251
Minerals, vitamins & other feeds				$ 1,008
Vet & medicine				$ 290
Livestock supplies				$ 65
Gas, fuel & oil				$ 83
Equipment repairs				$ 155
Building repairs				$ 36
Utilities & phone				$ 127
Hauling, marketing				$ 311
Miscellaneous				$ 24
TOTAL SELECTED CASH EXPENSES				**$ 6,356**
Family and regular hired labor, hours				65.0
Corn grain equivalent, bu (as fed)				899.2

1 Weaned pigs are priced at 53% of lean price. Market hog price ($42) is assumed to be paid on a 74% lean hog. Lean price is $42/.74 or $61.



Swine, Wean to Finish

Average Production

100 Pigs, 3.36 lbs feed per lb gain

	Quantity	Unit	Price per Unit	Total per Pig
REVENUE SOURCES				
Finished hogs	265	cwt	$ 42	$ 11,130
100 hd @ 265 lb				
5.18% Death loss	5.18	hd	$ 42	$ (577)
TOTAL REVENUE				**$ 10,553**
CASH EXPENSES				
Weaned pigs[1]	100	hd	$ 30	$ 3,008
Purchased Feed				
Soybean meal 44%	152.4	cwt	$ 9	$ 1,372
Minerals, vitamins & other feeds				$ 1,086
Vet & medicine				$ 307
Livestock supplies				$ 66
Gas, fuel & oil				$ 85
Equipment repairs				$ 160
Building repairs				$ 37
Utilities & phone				$ 133
Hauling, marketing				$ 302
Miscellaneous				$ 28
TOTAL SELECTED CASH EXPENSES				**$ 6,583**
Family and regular hired labor, hours				65.0
Corn grain equivalent, bu (as fed)				984.2

1 Weaned pigs are priced at 53% of lean price. Market hog price ($42) is assumed to be paid on a 74% lean hog. Lean price is $42/.74 or $61.

Swine, Wean to Feeder Pig

High Production

100 Pigs

	Quantity	Unit		Price per Unit		Total per Sow & Litters
REVENUE SOURCES						
Feeder pigs[1]	100	hd	$	44	$	4,370
100 hd @ 50 lb						
1% Death loss	1	hd	$	44	$	(22)
TOTAL REVENUE					**$**	**4,348**
CASH EXPENSES						
Weaned pigs[2]	100	hd	$	30	$	3,008
Purchased Feed						
Soybean meal 44%	15.3	cwt	$	9	$	138
Minerals, vitamins & other feeds					$	371
Vet & medicine					$	140
Livestock supplies					$	15
Gas, fuel & oil					$	3
Equipment repairs					$	25
Building repairs					$	3
Utilities & phone					$	27
Hauling, marketing					$	70
Miscellaneous					$	21
TOTAL SELECTED CASH EXPENSES					**$**	**3,820**
Family and regular hired labor, hours						15.0
Corn grain equivalent, bu (as fed)						57.9

1 Feeder pigs are priced at 77% of lean price. Market hog price ($42) is assumed to be paid on a 74% lean hog. Lean price is $42/.74 or $61.

2 Weaned pigs are priced at 53% of lean price. Market hog price ($42) is assumed to be paid on a 74% lean hog. Lean price is $42/.74 or $61.

Swine, Wean to Feeder Pig

Average Production

100 Pigs

	Quantity	Unit		Price per Unit		Total per Sow & Litters
REVENUE SOURCES						
Feeder pigs[1]	100	hd	$	44	$	4,370
100 hd @ 50 lb						
2.45% Death loss	2.5	hd	$	44	$	(54)
TOTAL REVENUE					**$**	**4,317**
CASH EXPENSES						
Weaned pigs[2]	100	hd	$	30	$	3,008
Purchased Feed						
Soybean meal 44%	17.2	cwt	$	9	$	155
Minerals, vitamins & other feeds					$	390
Vet & medicine					$	157
Livestock supplies					$	16
Gas, fuel & oil					$	5
Equipment repairs					$	30
Building repairs					$	4
Utilities & phone					$	33
Hauling, marketing					$	69
Miscellaneous					$	25
TOTAL SELECTED CASH EXPENSES					**$**	**3,892**
Family and regular hired labor, hours						15.0
Corn grain equivalent, bu (as fed)						65.0

1 Feeder pigs are priced at 77% of lean price. Market hog price ($42) is assumed to be paid on a 74% lean hog. Lean price is $42/.74 or $61.

2 Weaned pigs are priced at 53% of lean price. Market hog price ($42) is assumed to be paid on a 74% lean hog. Lean price is $42/.74 or $61.