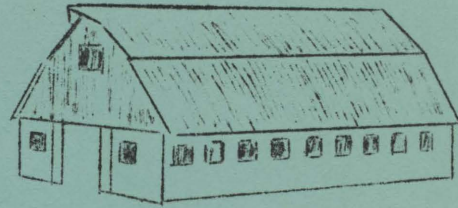


PLAN BEFORE YOU INVEST

A.E. 447



Guidelines for Planning
Your Pork Production System



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Outlook

The per capita demand for pork products is holding steady but with an increasing number of consumers total use is increasing. New product development using pork as one of the ingredients promises to aid in the total amount of pork consumed. Pork producers need to be more and more market oriented. Continue to improve the meatiness of the carcass as well as other desirable qualities that will increase consumer demand.

Waste disposal will be a main concern as increased concentration of large numbers of hogs occur. Society will continue to impose more regulations against odors and other types of pollution that originate from our industries, including farming.

The swine industry of Ohio has a bright future for the farmer who is willing to run his farming operation as a top-notch business. The highest net profit results when the most effective use is made of the resources at his disposal; namely, land, labor, capital, and management. Today management of the farm business is becoming one of the most important resource. Yes! The successful farmer of tomorrow will be much more a manager than the farmer of yesterday. Machinery is replacing large amounts of manual labor, while decisions to be made have multiplied in number and importance. The rapid changes in technology are leading Ohio farmers to accept new priorities for their time, which involve more emphasis on record keeping and on gathering other information, sifting it, and using it in making deliberate choices for the future. Both present and prospective farm operators are sensing a need for more formal and informal training in the processes of management and decision making.

It is true that the farm operator or manager must accept the final responsibilities for his decisions, but this does not mean that he must make them in isolation. Many realize the need to seek information and counsel from non-biased sources. This is the challenge of your Ohio Research and Extension programs to keep abreast and ahead of the changing technology.

Importance of Records

Since the farm business and the family living aspects are so closely associated it makes record keeping and business decisions more complicated. A wife that helps with the record keeping and/or is understanding of the priority of the economic decision necessary for financial progress is a real asset. There is no substitute for complete farm records including accurate inventories.

Complete over-all farm records, that are needed for regular analysis are most important; and secondly, enterprise accounts are needed. Your Agricultural Economics and Rural Sociology Department at Ohio State University can help you with both the over-all record and enterprise analysis through your county agent and/or area farm management extension agent.

You hear a lot about linear programming as a farm management tool in the future, but your accurate farm records will be a vital input in this analysis. Judgement will continue to be an important ingredient in the management process.

COSTS THAT SINK THE SHIP

Feed Is the Main Cost

The Ohio swine study showed the total cost of producing pork varied considerably. The high profit group produced 100 pounds of pork for \$13.50 total cost (note Table 1), but the low profit group had to spend \$5.10 more to do the same job per cwt. or \$10 per head. Feed costs make up over 2/3 of the total costs; so you must be concerned about feed waste, growthiness of your brood stock, balanced rations, feed conversion, etc.

Our Ohio swine evaluation station has lead the nation with a performance testing program. Do you as commercial pork producers fully appreciate the merits of these results? Production tested boars are one of the keys to profit in the swine business. Do you use a performance tested boar?

Table 1. Swine Feed Conversion and Cost of Production Per 100 Pounds Gain in Ohio

	High Profit 22 Farms	Low Profit 22 Farms	Average 67 Farms
Total Cost per 100# Gain	\$13.50	\$18.60	\$15.90
Feed per 100# Gain:			
Corn, Oats, etc.	328 lbs.	410 lbs.	368 lbs.
Protein	<u>43 lbs.</u>	<u>54 lbs.</u>	<u>50 lbs.</u>
Total	371 lbs.	464 lbs.	418 lbs.

Source: Extension-Research Swine Project-Dept. Agr. Econ. OAES - O.S.U.
by Robert Blosser.

Labor Costs

The farm production factor that almost always goes hand-in-hand with high net farm income is productivity per man. The larger the amount of products produced per man, the higher the net farm income. Thus, the critical question that annoy many is "Am I productively employed the year around?" Of course this is one of the main reasons for an affective livestock program in conjunction with your cropping program. Other important reasons for a livestock program includes the use of crop residues that have no market value, stretch your grain income through livestock, etc.

Competent and continuous labor is becoming harder to hire. A higher percent of farm production today results from the farm operator and his family than any time in history. However, this trend of substituting capital for labor in the form of machinery and other automation has left us with higher overhead costs. In many cases, we do not have the man hours available to operate at capacity.

Thus, consider the possibility of a partnership, partial partnership, co-ownership of some capital investments, or incorporation within the family as father-son, brothers, or non-related farmers. This might be a solution to the competent and continuous labor problem as well as a way to use the same mechanization over more units to lower overhead costs.

Watch Overhead Costs

Your fixed overhead expenses on your buildings and machinery may be a real strain on your business. Results of our recent swine study show that the high profit group of producers had overhead expenses (depreciation, interest, repairs, taxes, and insurance) that absorbed only 24 percent of the farm gross income, while the total overhead expenses in the low profit group absorbed 42 percent of the farm gross income. Two main ways of lowering your overhead expenses are 1) intensify the use of your facilities and machinery, and 2) test your buying by figuring the annual costs before you buy. A good thumb rule is to multiply 18 percent times the purchase price of new equipment or 13 percent times new price of a building and this will be a rough estimate of the depreciation, interest, repairs, taxes, and insurance cost that must be covered each year.

Divide this annual cost by number of units produced, like the number of litters or 100# pork produced in case of the hog enterprise; and this will give you your unit annual cost.

You need to realize this relationship between capital investment and the overhead costs per 100# pork produced in order to compare more clearly the competitive position of your limited capital.

There are only two ways you can justify mechanization from a dollar and cent standpoint. They are 1) that capital investment allows you to hire less labor, or 2) it increases your total production with the same amount of labor.

For sure, after you commit your capital to a permanent installation, your farm business must bear the cost of ownership regardless of the value you receive from it.

PLANNING SUGGESTIONS FOR YOUR PORK PRODUCTION SYSTEMS

There are many alternative methods of raising swine. Consider first the changes you might make to your present set up that may not mean a lot of new investment. What is the length of your planning horizon? What is your age, your preference, your abilities, etc.?

Try to improve your present system before you consider adding capital investments. Compare the costs and benefits of how you are handling your hog program now and your proposed plan. Do it on paper. Your pencil may be your most profitable tool.

To help with your planning the following data and procedure for estimating investment costs, annual ownership costs, labor requirements, and operating costs have been assembled. This information will help give you some guidelines, but specific plans for your individual farm will require using costs and prices that prevail in the local area.

On pages 11-13 you will find a budgeted plan for a specific system for 24 sows farrowing six times a year or 144 litters. This means 72 sows farrowing eight pigs per litter, twice each year, so at least four more sows need to be bred in each group or total of 84 sows total to help assure that the facilities will be used to capacity.

The purpose of this example budget on pages 11-13 is to give a procedure to follow in estimating the costs in a change of plans on your farm. Use pages 14-16 for your specific budget. Use your local costs on buildings, equipment, and variable costs. Don't throw this system of planning out because you disagree on an estimated cost used on pages 11-13. Some of the costs you may think are high, others low, but don't let this worry you. The procedure and the list of buildings, equipment and other inputs are what we want you to consider. However, in your case you may not need some items on this list or you may want other items not listed. Use 18% to figure annual cost of added equipment and 13% on buildings as outlined on page 10.

Table 2. Average Costs of Producing 100 Pounds of Hogs in Ohio a/

Item	Amount	Value	Percent
Feed	418 lbs.	\$10.30	67.8
Labor, direct and indirect	1.03 hours	1.55	10.2
Other capital			
Power and machinery	--	.74	4.9
Buildings and equipment	--	1.40	9.2
Veterinary and medicine	--	.51	3.4
Interest on beginning inventory and taxes	--	.45	3.0
General farm expense	--	.23	1.5
Total Costs		\$15.18	100.0

a/ Data from Ohio Research Bulletin 1001, July, 1967 "Costs of Producing Hogs in Ohio" by R. H. Blosser.

Table 3. Man Hours of Labor Required per Litter For Hog Production Under Selected Systems

Segment of Enterprise	All Portable Housing ^{a/}	All permanent housing and automated feed distribution ^{b/}	
		Open front, solid floor	Enclosed partially slotted floor
Breeding herd maintenance	3.0	3.0	3.0
Farrowing to 4 weeks	6.0	5.0	3.0
Nursing 4 to 8 weeks	3.0	2.5	2.0
Growing and finishing	8.0	6.5	4.0
Total	20.0	17.0	12.0

a/ Adapted from unpublished data, Research Project 301--Detailed Cost Investigation, and Purdue M.S. Thesis by Pat Powlen, 1958.

b/ Adapted from unpublished data from Moorman Farm Time Study and Research Project 307.

Table 4. Labor, Tractor Power and Feed Used to Produce 100 Pound of Pork in West Central, Ohio a/

	Low Cost Group 49 Records	High Cost Group 49 Records	Entire Study 148 Records
Labor, Hours	.80	1.30	1.03
Tractor Power, Hours	.24	.32	.26
Corn, Pound	323	384	352
Oats, Pound	9	11	11
Protein Supplement, Pound	42	56	49
Total Feed, Pound	374	451	412

a/ Blosser, R. H., "Cost of Producing Hogs in Ohio", Research Bulletin 1001, July, 1967.

Table 5. Estimated Total Grain and Supplement Feed Required for Selected Weight Gain Intervals per Pig Fed a/

Weight Gain Interval per Pig Fed	Grain (Corn equivalent, bu.)	36 Percent Protein Supplement (Pounds)	Average Protein Content of ration (Percent)	Average pounds of Total Concentrate per 100 Pounds Liveweight gain (Pounds)
40- 80	1.92	37.2	16	360
80-100	.96	18.6	16	360
100-120	1.30	9.2	12	410
120-160	2.60	18.4	12	410
160-200	2.60	18.4	12	410
200-220	1.30	9.2	12	450
160-220	4.0	30	12.0	424
120-220	6.5	46	12.0	412
80-220	8.8	74	12.6	400
40-220	10.7	110	13.2	395

a/ Adapted from USDA Technical Bulletin 894, Feed Consumption and Marketing Weight of Hogs, Table 12, p. 25; Your 1963 Hog Business, Illinois Extension Service Mimeo. AS-377; and Summary of Illinois Farm Business Records, Illinois Circulars 853, 874, and 891.

Table 6. Space Needs for All Ages of Swine

Period	Head Unit	Shelter, sq. ft. Concrete		Water lot, sq. ft./head	FeederSelf-Hand fed		
		Animal Space	Overall Building		outside lot, sq. ft./head	ft./ head/	head door
Breeding and Gestation	Sow	15	20	None	15	2	2
Farrowing				30			
Pens	Sow	56	70	(Optional)	1	2	1
Stall or crate	Sow	35	50	30	15	2	2
Growing							
Solid floor							
Weaning to 75 lb.	Pig	3	4	3	50	3/4	5
75 to 125 lb.	Pig	4	5	4	40	1	4
125 to 220 lb.	Pig	5	6	7	30	1 1/4	4
All or partially slotted floor							
Weaning to 75 lb.	Pig	4	5	--	50	3/4	5
75 to 125 lb.	Pig	6	7	--	40	1	4
125 to 220 lb.	Pig	8	10	--	30	1 1/4	4

Source: Midwest Plan Service, N.C.R. states

Table 7. Estimated Investment Costs for Selected Hog Buildings and Equipment

Item	Investment Cost ^{a/}	
	Per Unit	Per Litter Capacity
Permanent Building		
Farrowing House		
Solid Floor		
Structure Only	\$3.90 per sq. ft.	\$230
Structure and Usual Equipment _{b/}	5.64 " " "	435
Feeding Floor	.58 " " "	12
Slotted Floor		
Structure Only	4.60 " " "	316
Structure and Usual Equipment _{b/}	6.00 " " "	400
Nursery		
Solid floor		
Structure Only	4.00 " " "	160
Structure and Usual Equipment _{b/}	5.20 " " "	205
Slotted Floor		
Structure Only	4.60 " " "	175
Structure and Usual Equipment _{b/}	5.75 " " "	230
Enclosed Finishing		
Slotted Floor		
Structure Only	3.80 " " "	305
Structure and Usual Equipment _{b/}	4.60 " " "	370
Open-Front Finishing		
Shelter Area		
Structure Only	2.30 " " "	110
Structure and Usual Equipment _{b/}	3.20 " " "	155
Feeding Floor	.58 " " "	28
Feed House, 150-300 sq. ft.	2.30 " " "	--
Lagoon	2.30-4.00 per 100 sq. ft. of surface area with 5 ft. depth	28
Manure Storage Tank or Pit	115-145 per 1,000 gallons	30
Portable Housing		
Individual house, 7' x 8' with floor	115	115
Two-sow shelter without floor	58	29
Six-row pull-together, 18' x 20' with floor	690	115
Shades, 12' x 16'	70	17
Farrowing Supplies		
Stalls or crates	58	58
Pig brooders (heat lamps, radiant heaters, etc.)	6-18	12
Space heater	140-325	17

^{a/} Costs assume a contracted job, new materials throughout, recommended construction, and eight pigs per litter.

^{b/} Does not include equipment for processing or conveying feed or disposing of manure.

Table 7. (Continued)

Item	Investment Cost Per Unit
Ventilating Equipment	\$ 86-115 per 1,000 c.f.m.
Feed Processing	
Tractor Mill	690-805
Tractor Mill and Mixer, Portable PTD	1725-2300
Small Electric Mill, Floor Type with 2 hp motor	1125-1380
Mixer, 1,000 lb. with 3/4 hp motor	750-1150
Mixer, 200 lb. with 1/2 hp motor	115-175
Holding bin, 3/10 ton unloading auger	80-115 per ton capacity
Auger to conveyor, load vehicle, or transfer feed	1 per inch diameter per linear foot
Electric Motors, 1/2 - 5 hp	80-115 per hp
Feed Distribution	
Unloading grain wagon, tractor-drawn	575-810
Pneumatic feed blower, control, etc.	1725-2300
Controlled feeding system	58-86 per feed drop
Automatic self-feeding system, including feeder	58-86 per feed drop
Individual Self-Feeders	
Creep for baby pigs	2.30 per feeder
Individual Sow Feeder	5.75 per feeder
Nursery Self-Feeder (10 bu.)	46.00 per feeder
Finishing feeders	11.50 per hole
Waterers	
Portable tank, 50 gal.	58 per waterer
Pressure, single cup, indoor	5.75-11.50 per waterer
Pressure, double cup, freeze proof	58 per waterer
Manure-Handling Equipment	
Manure Loader	460
Manure Spreader	575
Liquid Manure Pumps and Tank Wagon	1380-4150
Cleaning Equipment	
Steam Cleaner	345
High-Pressure Pump with 3 hp motor	230-400
Fencing	
Lot, five-board fence	.82 per linear foot
Temporary woven wire	1.15 per rod
Panels, wooden	5.75 per panel
Cutting and Loading Chute	172
Electric Installations	58-170 each

Table 8. Selected Rates for Estimating Annual Direct Ownership and Operating Costs of Buildings, Equipment, Power, and Feed and Labor Used in Producing Hogs

Item	Cost Per Unit	Per Litter Raised Costs
Buildings		
Depreciation (15 years)	6.6% of new cost	
Interest (8% on $\frac{1}{2}$ new value)	4.0% of new cost	
Repairs	1.5% of new cost	
Taxes	1.0% of new cost	
Insurance	.3% of new cost	
Total	<u>13.4%</u> of new cost	
Equipment		
Depreciation (10 years)	10.0% of new cost	
Interest (8% on $\frac{1}{2}$ new value)	4.0% of new cost	
Repairs	3.0% of new cost	
Taxes	1.0% of new cost	
Insurance	.3% of new cost	
Total	<u>18.3%</u> of new cost	
Feed		
Corn Equivalent	\$ 1.10 per bushel	\$113.00
Protein and Mineral	5.75 per 100 lb.	55.00
Veterinary Fees, Vaccines, and other Medical		
	1.00 per pig	8.00
Breeding Charge (Net Boar Depreciation)		
	30.00 per boar	1.00
Other Cash Operating Expense		
Feed Processing		
Custom and Truck Expense to Elevator	2.50-3.50 per ton	12.00
Tractor and Mill	.50 per ton	2.00
Electric Mill	.08 per ton	.32
Feed Distribution		
Tractor and Unloading Wagon	.50-1.00 per ton	3.00
Mechanical Conveyor	.16 per ton	.64
Controlled Feeder	.16 per ton	.64
Manure Handling		
Tractor, Loader, and Spreader	1.00 per load	3.00
Tractor, Pump, and Liquid Application	.50 per 1,000 gal.	1.50
Bedding	18.00 per ton	3.00
Labor		
	1.50-2.50 per hour	See Table 2
Overhead, Auto, Truck, Small Tools, General Business, Etc.		
	5-15% of direct costs	20.00

Table 9. Example of Work Sheet to Estimate Capital Requirements, Annual Ownership, and Operating Costs of Hog Facilities for a Specific System of Handling 144 Litters (24 Sows Farrowing 6 Times a Year)

Part A. Farrowing Facilities

Item	Size and Description	Units Needed	Per ^{a)} Unit	Total ^{a)} Investments	Rate ^{a)}	Annual Ownership Costs
Building	<u>Solid Floor</u>	<u>24</u>	<u>\$ 230.</u>	<u>\$ 5520.</u>	<u>13%</u>	<u>\$ 718.</u>
Crates	<u>5 X 7 Crates</u>	<u>24</u>	<u>58.</u>	<u>1392</u>	<u>18</u>	<u>251.</u>
Bulk Feed Holding Bin	<u>3-Ton Hoppered Bins</u>	<u>2</u>	<u>\$ 345.</u>	<u>690</u>	<u>18</u>	<u>124.</u>
Feeders	<u>Sow Self-feeder/creeper</u>	<u>10/24</u>	<u>11.50/2.30</u>	<u>170</u>	<u>18</u>	<u>31.</u>
Waterer	<u>Pressure Freezed-Proof</u>	<u>1</u>	<u>58.</u>	<u>58</u>	<u>18</u>	<u>10.</u>
Heaters or Brooders	<u>Gas Radiant</u>	<u>24</u>	<u>17.</u>	<u>408.</u>	<u>18</u>	<u>73.</u>
Ventilating Equipment	<u>Fan + Controls</u>	<u>1200 CF.M.</u>	<u>.11</u>	<u>132.</u>	<u>18</u>	<u>24.</u>
Feeding Floor	<u>4" Concrete</u>	<u>480 Sq.ft.</u>	<u>.58</u>	<u>278.</u>	<u>13.</u>	<u>36.</u>
TOTAL				<u>\$ 8648</u>		<u>\$ 1267.</u>

Part B. Nursing Facilities

Building	<u>Totally Slotted</u>	<u>24</u>	<u>\$ 175.</u>	<u>\$ 4200.</u>	<u>13%</u>	<u>\$ 546.</u>
Ventilating Equipment	<u>Fan and Controls</u>	<u>1920 CF.M.</u>	<u>.11</u>	<u>211.</u>	<u>18</u>	<u>38.</u>
Heater	<u>Space heater</u>	<u>1</u>	<u>230.</u>	<u>230.</u>	<u>18</u>	<u>41.</u>
Feeders	<u>Automatic Sytem with Feeders</u>	<u>6 Drops</u>	<u>86.</u>	<u>516.</u>	<u>18</u>	<u>93.</u>
Bulk Feed Holding Bin	<u>3-Ton Hoppered Bin</u>	<u>1</u>	<u>345</u>	<u>345.</u>	<u>18</u>	<u>62.</u>
Waterers	<u>Single Cup Indoor</u>	<u>6</u>	<u>11</u>	<u>66.</u>	<u>18</u>	<u>12.</u>
TOTAL				<u>\$ 5580.</u>		<u>\$ 792.</u>

Part C. Finishing Facilities

Building	<u>Partially Slotted Narrow Pen</u>	<u>36 Pens</u>	<u>305</u>	<u>\$ 10,980.</u>	<u>13%</u>	<u>\$ 1427.</u>
Ventilating Equipment	<u>Fans and Controls</u>	<u>6720 CF.M.</u>	<u>.09</u>	<u>605.</u>	<u>18</u>	<u>109.</u>
Feeder or Feed Distribution System	<u>Automatic Controlled</u>	<u>36 Drops</u>	<u>58.</u>	<u>2088</u>	<u>18</u>	<u>376.</u>
Bulk Feed Holding Bin	<u>Hoppered Bin</u>	<u>6 Tons</u>	<u>92.</u>	<u>552.</u>	<u>18</u>	<u>99.</u>
Waterers	<u>Single Cup</u>	<u>36</u>	<u>8.</u>	<u>288.</u>	<u>18</u>	<u>52.</u>
TOTAL				<u>\$ 14,513.</u>		<u>\$ 2063.</u>

2) Use your costs when doing your budgeting.
See Table 8.

Table 9. (Continued)

Part D. Breeding Herd Facilities

Item	Size and Description	Units Needed	Per Unit	Total Investments	Rate ^{a/}	Annual Ownership Costs
Sow Shelters	Two Sow without floor	12	\$ 58.	\$ 696.	18%	\$ 125.
Feeders	12 Hole Self Feeder	3	44	132.	18	24.
Waterer	50 Gallon Portable	2	58	116.	18	20.
TOTAL				\$ 944.		\$ 169

Part E. Feed-Handling Facilities

Feed House	12 X 14	168	\$ 2.30	\$ 386	13%	\$ 50.
Feed Storage						
Bin for Corn with Loading Auger						
Bin for Supplement with Loading Auger	1	10 Ton	\$ 80.	800.	18	114.
Additional Transfer Augers to Mill	20 ft. 4" with 3/4 HP	2	178	356.	18	64.
Feed Processing						
Mill	Electric 2 H.P.	1	1035.	1035.	18	186.
Mixer						
Auger Feed to Conveyor	20 ft. 4" / 3/4 HP	80/1	1.10/85	173.	18	31.
Wiring and Controls	Mixer Installation	1	172.	172	18	31.
Other						
Unloading Wagon	Tractor Drawn	1	690	690	18	124.
Mechanical Conveyor						
TOTAL				\$ 3612.		\$ 630.

Part F. Manure-Handling Facilities

Lagoon or Storage Pits						
Manure Spreader or Applicator	1000 Gal. Wagon	1	\$ 1150.	1150.	18%	207.
Manure Loader or Pump	Vacuum Pump	1	230	230.	18%	41.
TOTAL				\$ 1380.		\$ 248.

^{a/} See Table 8.

Table 9. (Continued)

Part G. Summary

Expected annual production
 Number of litters: 144 *8 pigs per litter.*
 Pounds of pork produced: Total 230,400 per litter 1600

Cost of Facilities	Total	Investment Costs		Annual Operation and Ownership Costs		
		Per Litter Produced	Per 100 lb. Produced	Per Litter Produced	Per 100 lb. Produced	
Farrowing	<u>\$ 8,648.</u>	<u>\$ 60.06</u>		<u>\$ 1267.</u>	<u>\$ 8.80</u>	<u>\$.55</u>
Nursing	<u>5,580.</u>	<u>38.75</u>		<u>792.</u>	<u>5.50</u>	<u>.34</u>
Finishing	<u>14,513.</u>	<u>100.78</u>		<u>2,063.</u>	<u>14.33</u>	<u>.90</u>
Breeding Herd	<u>944.</u>	<u>6.56</u>		<u>169.</u>	<u>1.10</u>	<u>.07</u>
Feed Handling	<u>3,612.</u>	<u>25.08</u>		<u>630.</u>	<u>4.38</u>	<u>.27</u>
Manure Handling	<u>1,380</u>	<u>9.58</u>		<u>248</u>	<u>1.72</u>	<u>.11</u>
Other						
Total Costs of Facilities	<u>\$ 34,677.</u>	<u>\$ 240.80</u>	<u>\$ 15.05</u>	<u>\$ 5,169</u>	<u>\$ 35.83</u>	<u>\$ 2.24</u>

Other Operating Costs - Note Table 1

Feed, labor, Veterinary, medicine, power machinery, equipment
 and other expenses not including Building Total \$ 220.48 \$ 13.78

Total, all costs \$ 256.31 \$ 16.02

Your budget should include costs based on your situation - this is a procedure to follow.

Table 10. Work Sheet to Estimate Capital Requirements, Annual Ownership, and Operating Costs of Hog Facilities

Part A. Farrowing Facilities

Item	Size and Description	Units Needed	Per Unit	Total Investments	Rate ^{a/}	Annual Ownership Costs
Building	_____	_____	_____	_____	13%	_____
Crates	_____	_____	_____	_____	18%	_____
Bulk Feed Holding Bin	_____	_____	_____	_____	18%	_____
Feeders	_____	_____	_____	_____	18%	_____
Waterer	_____	_____	_____	_____	18%	_____
Heaters or Brooders	_____	_____	_____	_____	18%	_____
Ventilating Equipment	_____	_____	_____	_____	18%	_____
Feeding Floor	_____	_____	_____	_____	13%	_____
TOTAL				_____		_____

Part B. Nursing Facilities

Building	_____	_____	_____	_____	13%	_____
Ventilating Equipment	_____	_____	_____	_____	18%	_____
Heater	_____	_____	_____	_____	18%	_____
Feeders	_____	_____	_____	_____	18%	_____
Bulk Feed Holding Bin	_____	_____	_____	_____	18%	_____
Waterers	_____	_____	_____	_____	18%	_____
TOTAL				_____		_____

Part C. Finishing Facilities

Building	_____	_____	_____	_____	13%	_____
Ventilating Equipment	_____	_____	_____	_____	18%	_____
Feeder or Feed Distribution System	_____	_____	_____	_____	18%	_____
Bulk Feed Holding Bin	_____	_____	_____	_____	18%	_____
Waterers	_____	_____	_____	_____	18%	_____
TOTAL				_____		_____

^{a/} See Table 7.

Table 10. (Continued)

Part D. Breeding Herd Facilities

Item	Size and Description	Units Needed	Per Unit	Total Investments	Rates ^{a/}	Annual Ownership Costs
Sow Shelters	_____	_____	_____	_____	18%	_____
Feeders	_____	_____	_____	_____	18%	_____
Waterer	_____	_____	_____	_____	18%	_____
TOTAL				_____		_____

Part E. Feed-Handling Facilities

Feed House	_____	_____	_____	_____	13%	_____
Feed Storage	_____	_____	_____	_____		_____
Bin for corn with loading auger	_____	_____	_____	_____	18%	_____
Bin for supplement with loading auger	_____	_____	_____	_____	18%	_____
Additional transfer augers to mill	_____	_____	_____	_____	18%	_____
Feed Processing	_____	_____	_____	_____		_____
Mill	_____	_____	_____	_____	18%	_____
Mixer	_____	_____	_____	_____	18%	_____
Auger feed to conveyor	_____	_____	_____	_____	18%	_____
Wiring and controls	_____	_____	_____	_____	18%	_____
Other	_____	_____	_____	_____	18%	_____
Unloading wagon	_____	_____	_____	_____	18%	_____
Mechanical conveyor	_____	_____	_____	_____	18%	_____
TOTAL				_____		_____

Part F. Manure-Handling Facilities

Lagoon or storage pits	_____	_____	_____	_____		_____
Manure spreader or applicator	_____	_____	_____	_____	18%	_____
Manure loader or pump	_____	_____	_____	_____	18%	_____
TOTAL				_____		_____

See Table 7.

Table 10. (Continued)

Part G. Summary

Expected annual production

Number of litters: _____

Pounds of pork produced: Total _____ per litter _____

Cost of Facilities	Total	Investment Costs		Annual Operation and Ownership Costs		
		Per Litter =Produced	Per 100 lbs. Produced	Total	Per Litter Produced	Per 100 lbs. Produced
Farrowing	_____	_____	_____	_____	_____	_____
Nursing	_____	_____	_____	_____	_____	_____
Finishing	_____	_____	_____	_____	_____	_____
Breeding Herd	_____	_____	_____	_____	_____	_____
Feed Handling	_____	_____	_____	_____	_____	_____
Manure Handling	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____
Total Costs of Facilities	_____	_____	_____	_____	_____	_____
Other Operating Costs - Note Table 1 <u>a/</u>						
Feed, labor, veterinary, medicine, power machinery, equipment and other expenses not including building Total				_____	_____	_____
Total, all costs				_____	_____	_____

a/ Your budget should include costs based on your situation - this is a procedure to follow.

CONCLUSIONS:

Table 11. COMPARISON OF OVERHEAD AND TOTAL COSTS TO THE AMOUNT OF USE OF FACILITIES

(\$34,677 Investment for facilities from breeding to marketing - 144 litter capacity per year - 24 sow unit every two months)

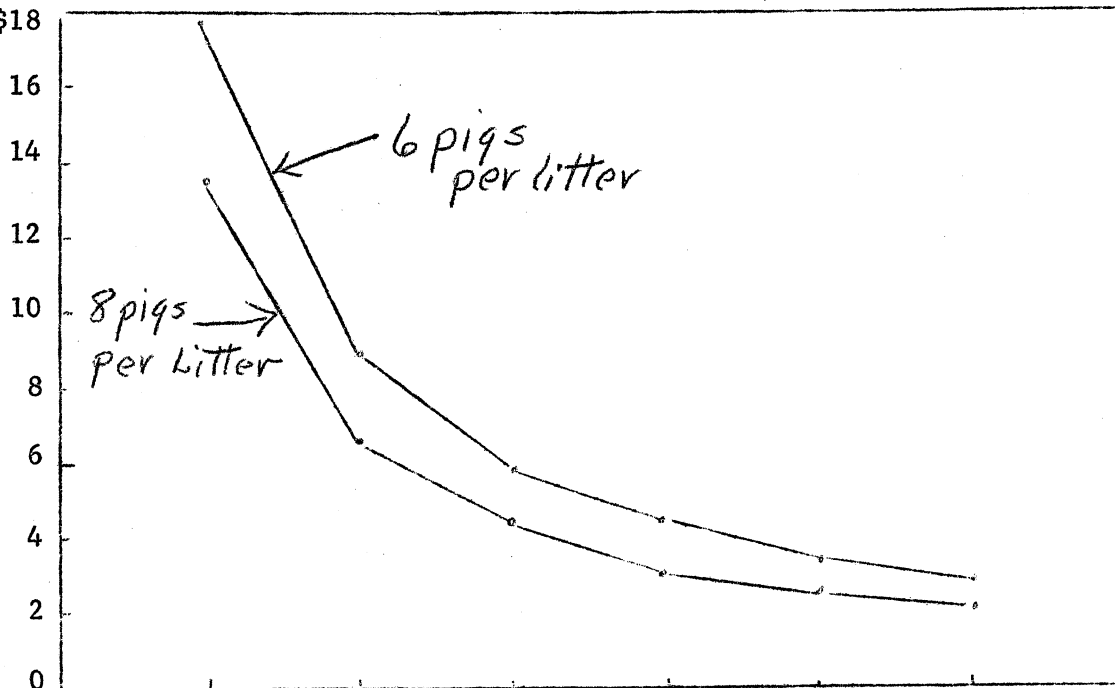
No. of Litters Per Year	8 Pigs Per Litter			6 Pigs Per Year		
	Lbs. Pork Produced	O.H. Costs Per Cwt. ^{a/}	Tot. Costs O.H. ^{b/} V.C. per 100 lbs.	Lbs. Pork Produced	O.H. Costs Per Cwt. ^{a/}	Tot. Costs O.H. V.C. ^{b/}
24	38,400	\$ 13.43	\$ 27.21	28,800	\$ 17.91	\$ 31.69
48	76,800	6.72	20.50	57,600	8.96	22.74
72	115,200	4.48	18.26	86,400	5.97	19.75
96	153,600	3.36	17.14	115,200	4.48	18.26
120	192,000	2.69	16.47	144,000	3.58	17.36
144	230,400	2.24	16.02	172,800	2.99	16.77

a/ O.H. means overhead costs and V.C. means variable costs.

b/ Assuming feed, labor, medicine, and other variable costs except building and equipment are same at all levels of volume (\$13.78).

Table 12. Comparison of Overhead Costs Per 100 Lbs. of Pork Produced With 8 and 6 Pigs Per Litter

Cost Per Cwt. \$18



No. Litters 24 48 72 96 120 144
 No. Head 192 384 526 768 968 1152
 Number of Litters and Head Produced Annually

(\$34,619 facility investment - Breeding to Marketing 144 litter capacity per year - 24 sow unit every 2 months)

CONCLUSIONS: (Continued)

1. Plan before you invest because once you are committed the only way to cut costs is by using the investment to capacity.
2. There is more than one good method of raising hogs on a low cost basis.
 - a system of minimum housing if surplus labor is available could be your low cost route.
 - the system with the best of facilities can fail with poor management.
 - the man is the key (the eye of the master, fattens the pigs and the pocketbook) keeps the pigs healthy and the buildings used to capacity for maximum profit.
3. Investment in expensive facilities and equipment makes it very important that we have a surplus of sows being bred in relation to number of farrowing stalls and other facilities; so we can help intensify their use to lower overhead costs.
4. Planning the breeding program so the sow units coming through the system is as close together as possible. This helps in keeping overhead costs down. Of course, giving time to clean up between batches is very necessary. Spacing should not be longer than every two months and not shorter than every month on a new facility.
5. Important factors to compare annually are:
 - a. Pigs marketed per litter farrowed.
 - b. Pigs marketed per sow exposed to the boar.
 - c. Sows handled per man.
 - d. Gross income per man from sale of hogs and other products from the farm.
 - e. Number of hogs marketed per man.
6. Note page 17, Table 11 and 12 to see how overhead costs go down on this example of 34 thousand dollar facility cost as the number of litters per year are increased and the pigs per litter to market increases from 6 to 8 pigs.
7. The annual cost on the facilities in this example per year is \$5,159 if you do not raise a single hog, down to \$4.48 per 200# hog if you market 8 pigs per litter and farrow 144 litters or 24 litters every two months.