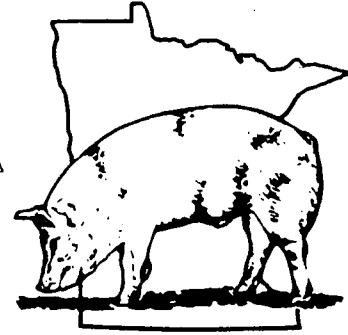


Hog Producers PLANNING GUIDE

UNIVERSITY OF MINNESOTA
DOCUMENTS

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Should I Produce Hogs?

Over time the hog enterprise has been a profitable one on Minnesota farms. About one of every six farms in the state raises hogs. The type of hog enterprise best suited to a particular farm depends on the relative availability of labor and feedgrains.

- The feeder pig production enterprise fits on farms where labor is plentiful relative to feedgrains.
- The other half of the hog production program--finishing feeder pigs--fits well on farms where feedgrains are plentiful but labor for farrowing is limited.
- The complete hog program fits well on intermediate size farms where feedgrains are available and the operator has an interest in hog production.

It is still possible to be a low-cost producer on a small scale, especially if idle resources can be utilized. Remodelling an empty dairy barn or other building can cut capital costs, but a completely new building may be preferable if remodelling costs more than half as much. A remodelled building may require more labor than a new facility designed for swine production. If labor already on the farm can schedule the swine chores around peak field work demands to utilize people, the result may be another source of income with little increase in cash costs. Budget realistically, and make sure critical tasks are still completed on time despite the

additional demands on people's time. Keep capital investment low and know your costs so that, if future industry expansion puts downward pressure on prices, you are not locked into operating the enterprise at a loss.

Modern confinement farrowing facilities require substantial amounts of capital. A commitment of labor and managerial expertise is needed to operate the farrowing facility intensively year-round. A finishing enterprise may be better suited to intermittent operation and more limited capital situations than is farrowing.

The swine industry worldwide is becoming more competitive, with producers cutting costs by increasing productivity and utilizing capital and managerial expertise more efficiently. The U.S. swine industry is producing 40 percent more pork per breeding animal now than in the early 1970's, due to early weaning, improved maternal lines and facilities, heavier market weights and leaner carcasses. Feed required per pound of pork produced is also decreasing.

One way to utilize capital and managerial expertise more efficiently is to increase the size of the enterprise. There is a trend toward larger swine operations in the U.S. The number of swine operations that sell 1,000 or more head per year is growing, while there are fewer operations selling less than 1,000. The fastest percentage growth is coming in operations selling 5,000 or more head per year.

PLANNING INFORMATION

The tables on the next three pages show expected feed requirements, operating costs and building investment costs for the above three different types of hog programs. Costs and return budgets are shown for 1991 and for the longer term. Prices and profits will vary by years, but we

suggest a long run planning price of \$44 to \$50 for market hogs with corn at \$2.30 to \$2.50 per bushel. Management levels are assumed to be about at the average for current farm record program participants.

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COMPLETE HOG PROGRAM - ONE LITTER TO MARKET (240 POUNDS)*

	For 1991			Long Term			
	Per Litter		Per Cwt	Per Litter	Per Cwt		
<u>Value Produced</u>							
7.5 pigs - 240 lbs. @ 50/cwt	\$900		@ \$46	\$828			
0.35 sows - 450 lbs. @ 40/cwt	<u>63</u>		@ \$37	<u>58</u>			
Total (1,958 lbs.)	\$963		\$49.20	\$886	\$45.28		
<u>Feed Requirements and Costs</u>							
Corn @ \$2.05/bu	105 bu	\$215	300 lbs.	\$11.00	@ \$2.40	\$252	\$12.87
Suppl. @ \$16.10/cwt	1,775 lbs	<u>286</u>	<u>91 lbs.</u>	<u>14.60</u>	@ \$15.00	<u>266</u>	<u>13.60</u>
Total Feed		\$501	391 lbs.	\$25.60		\$518	\$26.47
<u>Operating Costs</u>							
Hired labor		\$ 40		\$ 2.04		\$ 45	\$ 2.30
Marketing		14		0.72		16	0.82
Boar depreciation/replacement		10		0.51		10	0.51
Veterinary and medicine		31		1.58		36	1.84
Utilities, fuel and oil		34		1.74		34	1.74
Repairs		40		2.04		46	2.35
Insurance and supplies		18		0.92		21	1.07
Interest on livestock		28		1.44		28	1.44
Interest on operating capital		<u>7</u>		<u>0.35</u>		<u>8</u>	<u>0.39</u>
Total Operating		\$222		\$11.34		\$244	\$12.46
Total Feed and Operating		\$723		\$36.94		\$762	\$38.93
Return for Operator Labor, Facilities and Risk		\$240		\$12.26		\$124	\$6.35

* Under typical management, each sow and gilt kept will produce about 1.8 litters per year. Well managed, early weaning systems can produce 2.1 litters per sow per year. Hogs sold of 7.5 represents a well-managed operation weaning 8.54, with a 8 percent death loss to market weight and 0.35 gilt kept back for replacement.

Building Cost Estimates**

Use	Type of Building	Unit Size	Cost/Unit Capacity
Farrow-to-Finish	All buildings, confinement, environmental control	100-200 sows	\$1,400-2,400 per sow
Farrowing	Pasture A-frame huts	16 huts	\$150-300 per hut
	Central house, crates, partial slot	20 crates	\$1,500-2,600 per crate
Nursery	Barn with raised decks	200 weanlings	\$40-60 per pig
	Environmental control, wire floor over pit	200 weanlings	\$70-130 per pig
Finishing	Open shelter, drylot	200 market hogs	\$50-80 per hog
	Enclosed, partial slot, curtains	640 market hogs	\$70-125 per hog
	Enclosed, total slot, environmental control	640 market hogs	\$80-150 per hog
Gestation	Portable on pasture	16 sows	\$125-200 per sow
	Open shelter, pens, paved lot	16 sows	\$300-475 per sow
	Enclosed, crates, environmental control	100 sows	\$350-500 per sow

** Lower figure is for home-built items with most labor supplied by the operator. Higher figure is for turnkey facilities. Buildings with slats include cost of shallow pull-plug pits or scrapers under slats. Additional investment will be required for a central pit or lagoon, or a deeper pit under each building, for longer-term manure storage. Manure handling equipment, and fencing for pasture and open lot systems, will also require additional investment.

FEEDER PIG PRODUCTION - ONE LITTER TO MARKET AT 40 POUNDS*

	For 1991			Long Term	
	Per Litter	Per Pig Sold		Per Litter	Per Pig Sold
Value Produced					
7.8 pigs @ \$40/head	\$312	\$40.00	@ \$39	\$304	\$39.00
0.35 sows - 450 lbs. @ \$40/cwt	<u>63</u>	<u>8.08</u>	@ \$37	<u>58</u>	<u>7.47</u>
Total	\$375	\$48.08		\$362	\$46.47
Feed Requirements and Costs**					
Corn @ \$2.05/bu	\$ 51	\$ 6.57	@ \$2.40	\$ 60	\$ 7.69
Suppl. @ \$16.10/cwt	<u>138</u>	<u>17.75</u>	@ \$15.00	<u>129</u>	<u>16.54</u>
Total Feed	\$189	\$24.32		\$189	\$24.23
Operating Costs					
Hired labor	\$ 11	\$ 1.41		\$ 13	\$ 1.67
Marketing	8	1.03		9	1.15
Boar depreciation/replacement	10	1.28		10	1.28
Veterinary and medicine	18	2.31		21	2.69
Utilities, fuel and oil	16	2.05		16	2.05
Repairs	22	2.82		25	3.21
Insurance and supplies	12	1.54		13	1.67
Interest on livestock	15	1.95		15	1.95
Interest on operating capital	<u>4</u>	<u>0.46</u>		<u>4</u>	<u>0.50</u>
Total Operating	\$116	\$14.85		\$126	\$16.17
Total Feed and Operating	\$305	\$39.17		\$315	\$40.40
Return for Operator Labor, Facilities and Risk	\$ 70	\$ 8.91		\$47	\$ 6.07

* Under typical management, each sow and gilt kept will produce about 1.8 litters per year. Well managed, early weaning systems can produce 2.1 litters per sow per year. Pigs sold of 7.8 represents a well-managed operation weaning 8.54, with a 5 percent death loss in the nursery and 0.35 gilt kept back for replacement.

** Total feed requirements are equivalent to 25 bushels of corn and 860 pounds of supplement, including starter.

Space Requirement Estimates*

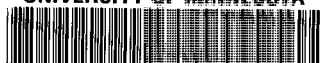
Weight of Pig (lbs.)	Total Space Per Pig**		
	Slotted Floors (partial or total) (sq. ft.)	Solid Floors (no slats) (sq. ft.)	Stall Size
15-30	1.7-2.5		
30-60	3-4		
60-100	5		
100-150	6		
150-market	8		
Boars	40	60	28" x 7'
Gestating			
Gilts	14	20	22" x 6'
Sows	16	24	24" x 7'

* SOURCE: Pork Industry Handbook PIH-55

** Free floor space, excluding space for feeders and waterers, in a totally enclosed building. For building with outside apron, allow 12 square feet per animal for growing-finishing pigs, 22-24 square feet for sows and 80 square feet for boars, with half inside and half outside.

FINISHING FEEDER PIGS - ONE PIG FROM 40 TO 240 POUNDS

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<u>Performanc</u>	<u>Current</u>	<u>Long Term</u>	
		Head	Cwt. Gain
Total gain, pounds	See the	200	
Pounds feed per pound of gain	latest	3.61	
Average daily gain, pounds	FEEDPIGS	1.5	
	computer		
	printout		
	and/or		
<u>Value Produced</u>	tables at		
Sale value at \$46 per cwt.	bottom of	\$110.40	
	page.		
<u>Feed Requirements and Costs</u>			
Corn - 10.7 bu. at \$2.40 per bu.		\$25.68	
Protein supplement 40% - 123 lbs. at \$15.00 per cwt. (minerals, vitamins & antibiotics included in protein supplement)		<u>18.45</u>	
Total Feed Cost		\$44.13	\$22.07
<u>Operating Costs</u>			
Purchase price per head; 40 lb. feeder pig		\$39.00	
Allowance for a 3% death loss		1.17	
Interest on feeder pig at 12% for 133 days		1.74	
Marketing and buying expenses per hog		3.50	
Other related cash operating expenses per hog		<u>9.00</u>	
Total Operating Cost		\$54.41	\$27.20
Total Feed, Cash Expense and Purchase Cost		\$98.54	\$49.27
Return For Labor, Facilities and Risk		\$11.86	\$5.93

Return Per Head for Labor, Facilities and Risk at Different Hog Prices (Corn at \$2.40/Bu.)

<u>Selling</u> <u>Price/Cwt.</u>	<u>When the Feeder Pig Price Per Head is:</u>				
	<u>\$33.00</u>	<u>\$36.00</u>	<u>\$39.00</u>	<u>\$42.00</u>	<u>\$45.00</u>
\$42.00	8.71	5.48	2.26	-0.97	-4.19
44.00	13.51	10.28	7.06	3.83	0.61
46.00	18.31	15.08	11.86	8.63	5.41
48.00	23.11	19.88	16.66	13.43	10.21
50.00	27.91	24.68	21.46	18.23	15.01

Market Price Needed for a 240 Pound Hog to Cover Feed and Related Expenses Plus \$10.00 for Labor, Facilities and Risk

<u>Purchase</u> <u>Price of 40 Lb.</u> <u>Feeders (\$) is</u>	<u>When Corn is Valued at (Dollars / Bushel)</u>				
	<u>\$2.10</u>	<u>\$2.25</u>	<u>\$2.40</u>	<u>\$2.55</u>	<u>\$2.70</u>
	<u>Break-even Sale Price (\$ / Cwt.)*</u>				
\$33.00	41.20	41.87	42.54	43.21	43.88
36.00	42.54	43.21	43.88	44.55	45.22
39.00	43.89	44.56	45.23	45.89	46.56
42.00	45.23	45.90	46.57	47.24	47.91
45.00	46.57	47.24	47.91	48.58	49.25

* Subtract \$4.17 from each sale price above to cover just the value of feed and the feeding related cash expenses.