

CAN YOU AFFORD TO STAY IN THE PORK PRODUCTION BUSINESS?

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High feed prices, increasing overhead costs, and fluctuating market prices are the main factors of uncertainty in planning ahead in the pork production business.

The pork business has two main production phases: 1) producing the feeder pig, and 2) finishing the feeder pig. The first stage requires more cost per pig in labor, in facility investment, and in management generally. Locating a consistent source of satisfactory feeder pigs is one critical problem of the finishing hog feeder.

Deciding whether you can stay in the pork production business in these uncertain times depends on your feed conversion performance, price of corn, your overhead costs, and your expected price for market hogs as well as the cost of feeder pigs. If you already have the facilities and labor available, these overhead costs go on whether you produce hogs or not. However, they may have more productive use elsewhere.

One of the main reasons you are in the pork business is to stretch the value of your feed dollar by feeding it through livestock. The big question at this time is, can you afford to feed high-priced corn or should you sell it and stay out of the hog business? To answer this, you should consider both the short run and the long run objective of your farm. In the short run for the man already in the business, profit over variable costs (feed, supplies, and other cash costs) would be the objective. However, the man starting or one who wants to expand, needs to think of covering both variable and overhead costs, even in the short run. In the long run, all costs have to be covered by everyone. But, for the low cost producer a cost-price squeeze is generally a blessing in disguise, because it causes some high cost producers to cut back on numbers produced, thus lowering supplies and strengthening price.

How High Does the Market Price of Hogs Have to Be To Cover Your Variable and Your Total Costs?

This depends on two main factors: the price of corn and your feed efficiency. In Table 1 and Figure 1, the feed efficiency rate has been varied from 330# to 578# of feed to put on a 100# of gain. For 160# gain over the feeding period from 50 to 210# this varies from 8 bu. corn and 80# supplement to 14 bu. corn and 140# supplement. Corn prices are varied from \$1.60 to \$3.20 per bushel, while the price of SBM is held at \$10 per 100# . Select the feed efficiency on the left hand column that approximates your efficiency and go across to the right to the price of corn you can get after hauling costs are deducted. The first figure is the price for market hogs you would need to cover variable costs, and the second figure is the

Table 1. Market Hog Price Necessary Per Cwt. to Break Even at Different Corn Prices and Feed Efficiency Rates, Feeding from 50# to 210# (or 160# Gain).<sup>1/</sup>

Feed Efficiency		Corn Prices									
		\$1.60/bu.		\$2.00/bu.		\$2.40/bu.		\$2.80/bu.		\$3.20/bu.	
Per 100#	Per 160# Gain	VC	Total Cost	VC	Total Cost	VC	Total Cost	VC	Total Cost	VC	Total Cost
Dollars Per Cwt. - Market Hogs											
8 bu. Corn	330#	28.10	30.44	29.63	31.97	31.17	33.50	32.69	35.02	34.23	36.56
80# Supp.											
10 bu. Corn	412#	30.59	32.92	32.50	34.84	34.42	36.75	36.33	38.66	38.24	40.58
100# Supp.											
12 bu. Corn	495#	33.08	35.41	35.37	37.71	37.67	40.00	39.97	42.30	42.26	44.60
120# Supp.											
14 bu. Corn	578#	35.57	37.90	38.24	40.58	40.92	43.26	43.60	45.93	46.28	48.61
140# Supp.											

<sup>1/</sup> Variable Cost includes the following costs per feeder pig started: \$33.50 for the feeder pig; \$3.20 for vet, utilities and other cash costs, plus interest on the feeder pig, and feed costs. A 2% death loss affects feed cost and pounds of pork sold.

Total Cost includes all Variable Costs plus \$4.80 per pig started for labor and overhead costs. This includes a labor charge of 1.5 hours per pig at \$2.50 per hour. Again a 2% death loss is assumed.

Figure 1 -- MARKET HOG BREAK-EVEN PRICE, PER CWT.

Break-even price needed for 210# market hogs when feeder pigs cost \$33.50 per head, at various corn prices and feed efficiencies.

Break-even market price per cwt.

\$ 50 -

48 -

. Total bar = Price to cover total costs

. Shaded part = Price to cover variable costs

44 -

42 -

40 -

38 -

36 -

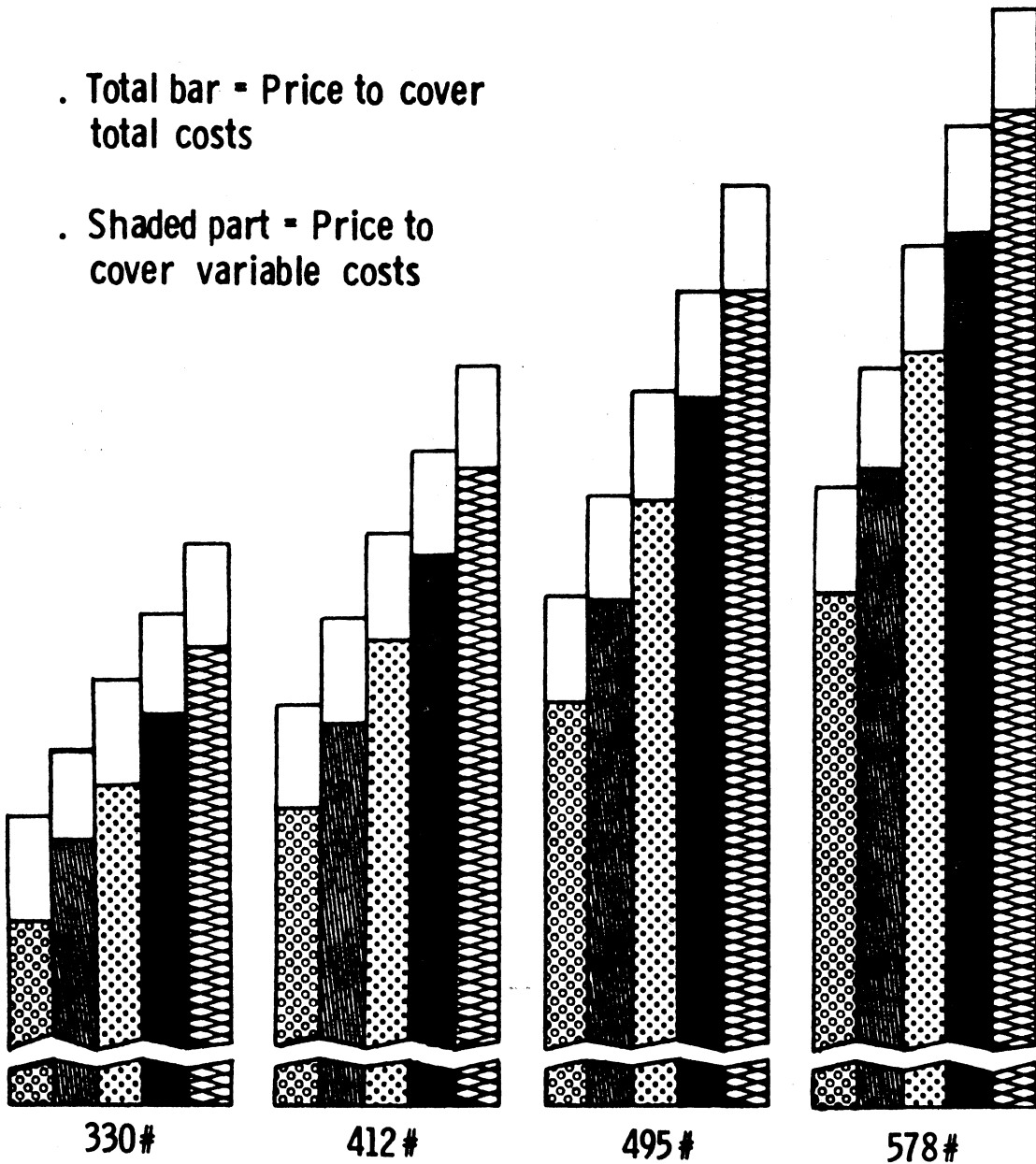
34 -

32 -

28 -

26 -

0 -



Feed Required Per 100# Gain Feed Efficiency

Corn Prices Per Bushel

\$ 1.60

\$ 2.00

\$ 2.40

\$ 2.80

\$ 3.20

price you need to cover all costs including labor and facilities. For example, if your feed conversion rate is 412# per 100# of gain and you can net out \$2.80 per bushel when you sell your corn, then you need to sell 210# market hogs at \$36.33 per 100# to cover variable costs and \$38.66 per 100# to cover all costs. These assume you can buy the feeder pig for \$67 per 100#, or \$33.50 per head.

The breakeven price of \$36.33 per 100# to cover variable costs with corn at \$2.80 per bushel and 412# feed per 100# gain was determined as follows:

Cost of Feeder Pig	\$33.50
Interest on Feeder Pig	.66
Non-feed Variable Costs	3.20
Feed Cost (after adjustment for 2% death loss)	37.41
Total Variable Cost	<u>\$74.77</u>

With 2% death loss, only .98 pig sold  
.98 pig x 210# = 205.8# or 2.058 cwt. sold  
\$74.77 ÷ 2.058 cwt. = \$36.33

Therefore, \$36.33 per cwt. for market hogs is needed to exactly cover all variable costs with corn at \$2.80 per bushel and feed efficiency of 412# per 100# gain.

Adding the \$4.80 for fixed costs to \$74.77 and dividing by 2.058 cwt. gives the \$38.66 per cwt. breakeven price to cover all costs for these conditions.

#### How Much Can You Pay For Feeder Pigs?

Alternatively you may want to know how much you can afford to pay for feeder pigs. Table 2 and Figure 2 illustrate what you can afford to pay for feeder pigs per head with various corn prices and feeding efficiencies when finished hogs are selling at \$40 per cwt. Example: If you are a very efficient feeder using only 330# of feed per cwt. gain, you can afford to pay \$40.45 and cover all costs even when corn is \$3.20. But if your efficiency is at the 495# level, you can only afford to pay \$24.23 and still cover all costs.

Table 2. Purchase Feeder Pig Break-Even Prices per Head at the Following Corn Prices and Feed Efficiency Rates at 50# Purchase Weight if Market Hogs Are Selling for \$40 Cwt.<sup>1/</sup>

Feed Efficiency		Corn Prices									
		\$1.60/bu.		\$2.00/bu.		\$2.40/bu.		\$2.80/bu.		\$3.20/bu.	
Per 160# Gain	Per 100# Gain	VC	Total Cost	VC	Total Cost	VC	Total Cost	VC	Total Cost	VC	Total Cost
Purchase Price Per Feeder Pig											
8 bu. Corn 80# Supp.	330#	57.51	52.80	54.42	49.72	51.33	46.63	48.24	43.53	45.15	40.45
10 bu. Corn 100# Supp.	412#	52.49	47.78	48.62	43.92	44.76	44.06	40.90	36.19	37.04	32.38
12 bu. Corn 120# Supp.	495#	47.47	42.76	42.83	38.13	38.20	33.50	33.56	28.86	28.94	24.23
14 bu. Corn 140# Supp.	578	42.45	37.74	37.05	32.34	31.63	26.93	27.30	21.52	20.83	16.12

<sup>1/</sup> See Table 1 for definition of variable cost (VC) and total cost.

Determining Your Own Break-Even Price

The two previous break-even analyses required you to accept a given price for either feeder pigs or market hogs. If these are quite different from the values we assumed, you will want to calculate your own break-even price. To estimate this you need to know your: feed costs, non-feed costs, percent death loss, and cost of feeder pigs. You can use your own feed costs or estimate them from Table 3 with your estimate of feed efficiency and corn prices. If you do not know your non-feed costs, our estimate is \$8.00 per head. This includes \$3.20 for vet, utilities, and other cash costs; \$3.75 for labor; plus \$1.05 for overhead costs. The feed costs shown in Table 3 include a two percent death loss, which lowers the feed costs per pig started.

Figure 2 -- FEEDER PIG BREAK-EVEN PRICES, PER HEAD

Break-even price to pay for 50# feeder pigs when market hogs are selling for \$40 cwt., at various corn prices and feed efficiencies.

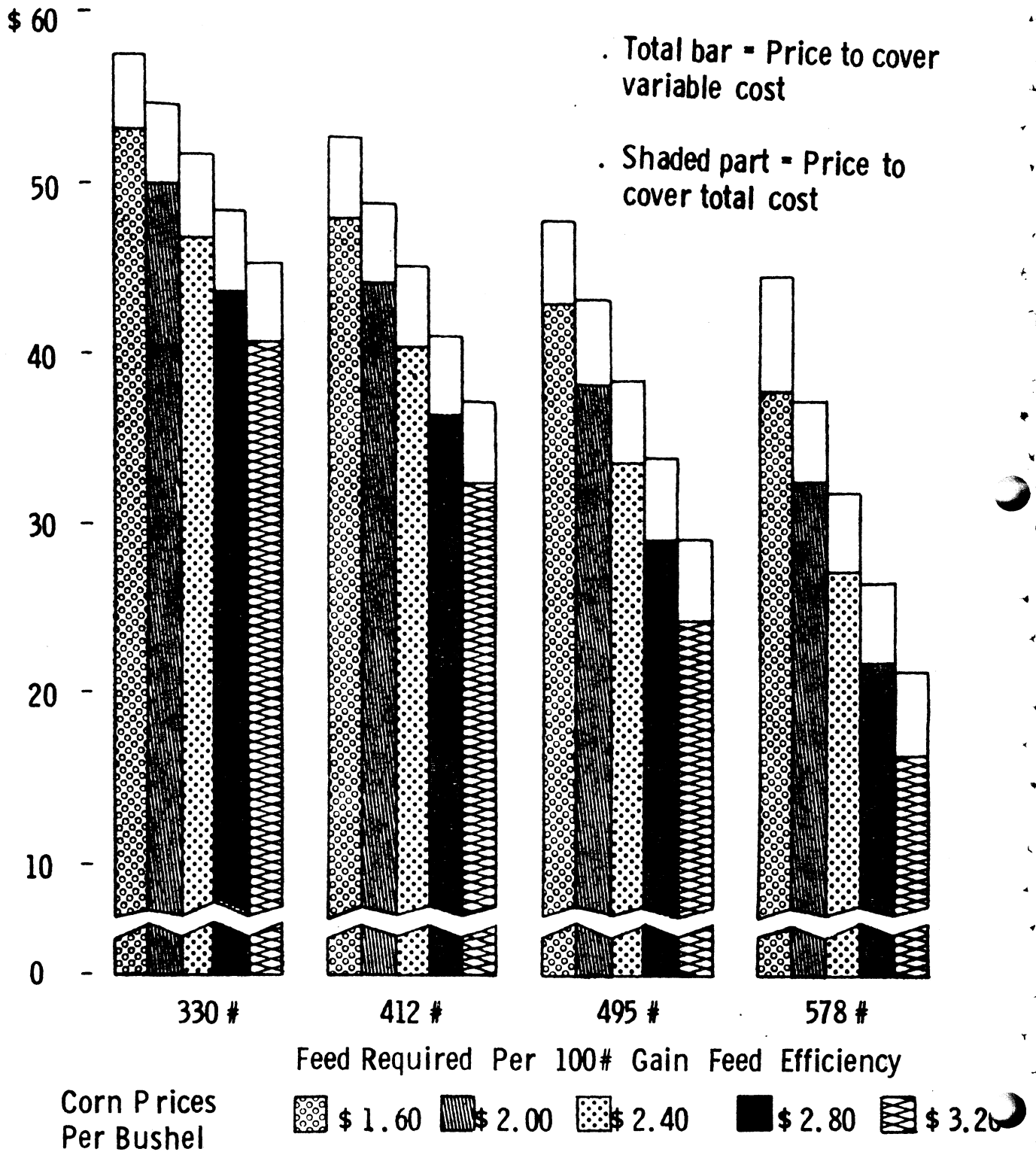


Table 3. Feed Cost Per Pig Fed From 50# to 210# At Different Corn Prices<sup>1/</sup>

Feed Efficiency		Corn Prices				
Per 160# Gain	Per 100# Gain	1.60/bu. Per Head	2.00/bu. Per Head	2.40/bu. Per Head	2.80/bu. Per Head	3.20/bu. Per Head
--Feed Cost Per Head--						
8 bu. Corn 80# Supp.	330#	20.48	23.63	26.78	29.93	33.08
10 bu. Corn 100# Supp.	412#	25.60	29.53	33.47	37.41	41.35
12 bu. Corn 120# Supp.	495#	30.71	35.44	40.17	44.89	49.62
14 bu. Corn 140# Supp.	578#	35.83	41.35	46.86	52.37	57.89

<sup>1/</sup> Includes SBM at \$10 per 100# and adjusted for 2 percent death loss.

Use the following formula to estimate your needed market price.

Formula to Figure Your Break-Even Sale Price Needed For Your Market Hogs

1. Feed Cost Per Head for 160# Gain (50# to 210#)  
(Use your cost figures or select your approximate cost from Table 3 by selecting your approximate feed efficiency and anticipated corn price.) \_\_\_\_\_
2. Non-feed Cost Per Head  
(Use your own or use \$8 per head) \_\_\_\_\_
3. Cost of Feeder Pig Per Head \_\_\_\_\_
4. Total Cost (Line 1 + 2 + 3) \_\_\_\_\_
5. Break-even Sale Price on 210# Hogs  
Needed to Cover All Costs (Line 4 ÷ 2.058)<sup>1/</sup> \_\_\_\_\_

<sup>1/</sup> Feed costs have been reduced to account for death loss. To make output comparable for 2 percent death loss we use 98 percent of 210# or 2.058 cwt. sold.

Example: If corn was \$2.85 per bushel but it would cost at least five cents per bushel to haul it to market for a net sale price of \$2.80, go to Table 3, select the column for \$2.80 corn and go down to your feed cost line. If you can grow hogs on 412# feed per cwt. gain, \$37.41 is your total feed cost per head for 160# gain. Place \$37.41 in line 1, \$8.00 in line 2 and your cost to buy a 50# feeder pig in line 3, say \$38.00 per pig or 76 cents per pound. Then  $\$37.41 + \$8.00 + \$38.00 = \$83.41$ . Place this value on line 4 and divide by 2.058. We assumed an average market weight of 210#. Taking into account a 2 percent death loss means only .98 pig or 2.058 cwt. is sold per pig started. This gives a value of \$40.53 which is the price market hogs would have to sell to break even at your stated cost of feed, feeder pig, death loss percentage and non-feed cost.

In the short run, you may want to know the lowest price per cwt. to cover only feed costs and the cost of feeder pig. Then you would add feed costs plus cost of the feeder pig (lines 1 and 3) and divide by 2.058.

These guidelines are based on updated cost figures from the Ohio Farm Business Analysis records from last year. Use your own figures if you have them calculated

#### Returns Above Variable and Total Costs

With today's feed prices at levels unheard of, even as recently as a year ago, are many producers apt to make money at current hog prices? To look at profit per head, Table 4, and Figure 3 show returns above variable costs and above all costs when feeder pigs cost \$33.50 per head and market hogs are selling for \$40 per cwt.

The pork producer who uses 500# or more of feed per cwt. gain is in trouble when corn prices get to \$2.80 or more per bushel. At this point, variable costs are barely being covered for the standards used in this analysis. But producers feeding 400# or less per 100# gain can make a profit, even at the \$3.20 level for corn.



Table 4. Return Over Variable Costs and Total Cost Per Cwt. When Feeding From 50# to 210# If Market Price Is \$40 Per Cwt. And Feeder Pig Price Is \$33.50 Per Head At Different Corn Prices And Feeding Efficiency Rates<sup>1/</sup>

Feed Efficiency	Per 100# Per 160# Gain	Corn Prices									
		\$1.60/bu.		\$2.00/bu.		\$2.40/bu.		\$2.80/bu.		\$3.20/bu.	
		VC	Total Cost	VC	Total Cost	VC	Total Cost	VC	Total Cost	VC	Total Cost
--Returns Above Costs-Per Head Started--											
8 bu. Corn 80# Supp.	330#	15.71	12.63	13.69	10.61	11.67	8.59	9.65	6.57	7.63	4.55
10 bu. Corn 100# Supp.	412#	12.43	9.35	9.90	6.82	7.37	4.29	4.85	1.77	2.32	-.76
12 bu. Corn 120# Supp.	495#	9.14	6.06	6.11	3.03	3.08	-.00	.04	-3.04	-2.99	-6.07
14 bu. Corn 140# Supp.	578#	5.86	2.78	2.32	-.76	-1.22	-4.30	-4.76	-7.84	-8.30	-11.38

<sup>1/</sup> VC = All costs except labor and depreciation on buildings and equipment.

Summary

Corn and supplement prices at levels two to three times that of previous levels have caused many hog producers to re-examine their swine program. The opportunity to sell corn at \$2.00 or more per bushel raises questions about the profitability of feeding hogs. Our analysis indicates efficient producers can achieve additional profits on corn through feeding it to hogs.

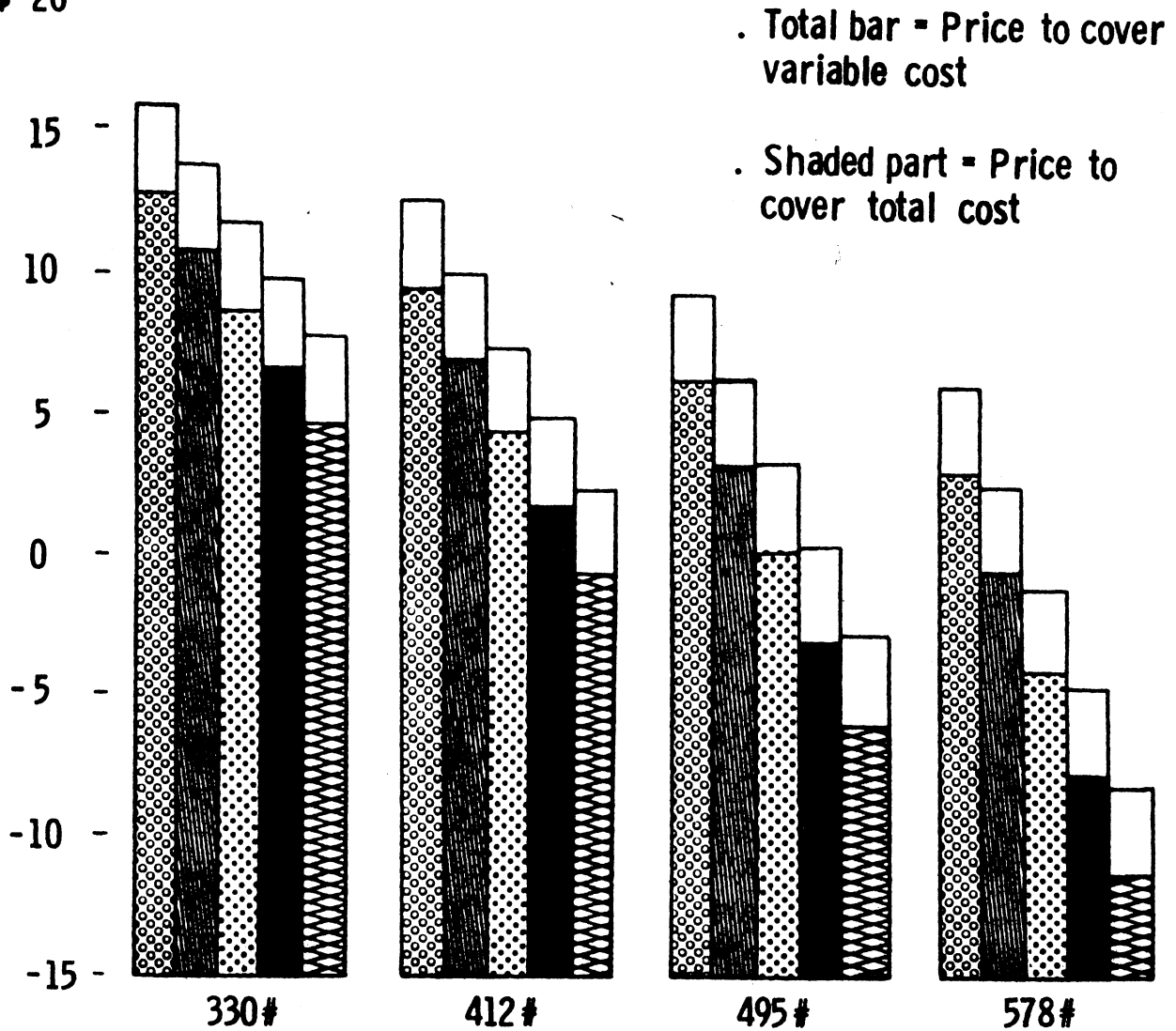
Naturally, each producer has a different cost structure than anyone else. But, this information may help you determine whether or not you can afford to stay in the pork production business.

Figure 3 -- PORK PRODUCTION 50# TO 210#

Return over total cost and variable costs per cwt. Market price \$40 per cwt. Feeder pig cost \$38 per 50# pig with corn prices and feeding efficiency rates varying.

Return Over  
Cost

\$ 20 -



Feed Required Per 100# Gain Feed Efficiency

Corn Prices Per Bushel  
 \$ 1.60    \$ 2.00    \$ 2.40    \$ 2.80    \$ 3.20