

WEIGHT has an effect on

Market Price of Hogs

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PRICES for hogs are the most variable of all livestock prices. In the past 18 months at the Union Stockyards, West Fargo, North Dakota, prices of slaughter hogs changed from \$20 per 100 pounds in June, 1955 to \$9.80 in December, 1955, back up to \$18 in May, 1956 and then down again.

Part of this variability in hog prices is seasonal. It arises from the seasonal pattern of farrowing, raising and marketing of hogs. Typical seasonal trends are repeated year after year. The price pattern in North Dakota indicates two peaks. The 1947 to 1955 price curve shows the first peak in February and March, with the second, which is the higher, in August and September. The low price dip for the year is in November, December and January.

More hogs are marketed in the late fall and early winter than any other season. (5) December is the top month in marketing for the United States, while November is

the high month for marketing in North Dakota. In a typical year, in 3 months, November, December, January, 30 percent of the year's total hog production is slaughtered in the United States and about 50 percent of North Dakota's production.

When the sows are bred there is little that can be done about the season of the year in which their litters are to be marketed. Various methods of feeding and management may be employed to help change the time of market, or the hogs can be carried to heavier weights and then marketed, but all in all, the season of marketing is foretold when the sows are bred.

When the breeding and farrowing program is set up to fit your own particular farm, the next thing to look forward to is the marketing of the hogs raised. In marketing of slaughter hogs, the weight at which they are sold is of utmost importance. In preliminary analysis of data from the Union Stockyards, West Fargo, the preferred weight range

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TABLE I.—Preliminary Data—Union Stock Yards Company, West Fargo, 1 1955.

Weight (Pounds)	Prices/Month												Weighted Avg. ^b
	Jan. ²	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
160-180.....	16.49	16.25	17.00	16.93	18.43	17.43	15.56	15.77	14.21	11.85	10.02	15.48	
181-200.....	16.72	16.69	17.35	17.12	19.18	17.30	16.25	15.80	13.29	11.78	10.24	15.76	
201-220.....	16.51	16.66	17.25	17.38	19.54	17.38	16.53	15.92	13.50	11.82	10.26	15.66	
221-240.....	16.46	16.37	17.17	16.90	19.70	17.45	15.87	16.10	13.60	11.81	10.17	15.01	
241-260.....	15.62	16.11	16.42	16.48	19.29	16.48	16.65*	15.05	13.28	11.47	9.80	15.00	
261-280.....	15.21	15.35	16.05	15.56	19.10	16.38	15.00	14.75	11.91	11.45	9.40	14.88	
281-300.....	14.39	14.66	15.30	14.90	17.16	16.00	15.00	14.75	11.90	11.00	9.49	14.55	
over 300.....	13.85	14.62	14.60	13.84	14.91	15.58	14.23	14.42	11.89	10.00	8.48	14.10	
Average weight.....	234	233	233	230	230	206	202	201	212	211	219	217	

*This price is high due to small numbers available at this time.

^bNumber marketed were small.

¹Preliminary data from Union Stockyards, West Fargo (1955) with prices calculated only on slaughter hogs (barrows and gilts).

²No data available, project was begun in February, 1955.

³The average price is calculated on a weighted basis using numbers and price and is not an average price determined by months.

TABLE II.—Feed Consumed, Grain.

Live weight (lbs.)	Air-dry feed—(lbs.)
25	2.0
50	3.2
100	5.3
150	6.8
200	7.5
250	8.3

is between 190 to 220 pounds. This is the weight range on which the highest price for slaughter hogs is received consistently throughout the year. The change in price received from one weight group to another varies from one month to another, depending on the number of butcher hogs available and on the existing price level.

Table I shows these changes by the month for the various weight ranges. The market high each month does not always fall within the same weight group. The price for any one weight group tends to be affected by the supply in that month and the weight of the hogs being marketed. Table I also gives the average weight of the hogs marketed and the average price for the month.

Figure 1 shows the comparison of the weight groups using the 200 to 220 pound hog as a basis. Only part of the weight groups are charted, to allow easier interpretation. Weight groups not shown follow trends similar to those given.

It can be seen from these preliminary data that the highest price is not always paid for the 200 to 220 pound hog. In some seasons of the year other weight hogs have more demand and receive the higher price. The average weighted price for the year shows that the 180 to 200 pound slaughter hog brings the

and Efficiency at Various Weights.

Daily gain (lbs.)	Feed per 100 lbs gain (lbs.)
.8	250
1.2	267
1.6	331
1.8	378
1.8	417
1.8	461

highest price, followed closely by the 200 to 220 pound weight group.

Using preliminary data from Union Stockyards, West Fargo, costs can be determined for growing hogs to the various weight groups. Feed consumption and average daily gain (table II) are calculated from data in Morrison's **Feeds and Feeding**, 22nd edition. Accumulated feed consumption is shown in table III.

Table II shows that a pig becomes less efficient (feed/100 pounds gain) with increased weight. The average daily gain increases up to a weight of 150 pounds, then remains fairly constant to 250 pounds (Morrison), after which it decreases as the weight of the hog increases. At 300 pounds, average daily gain is approximately 1.6 pounds per day with feed efficiency 500 pounds feed per 100 pounds gain. At 350 pounds, average daily gain is 1.4 pounds per day with feed efficiency 550 pounds feed per 100 pounds gain.

Table III lists the costs and shows the differences between costs and prices received. The greatest return shown in the profit column is for the 200 to 220 pound hogs. The 180 to 200 pound weight is quite similar, with all other groups considerably lower. The profit resulting from the 260 to 280 pound hogs is greater than profit from 240 to 260 pound hogs. An explanation for this is that sufficient numbers of hogs are

TABLE III.—Costs and Returns for Different Weight Hogs.

Weight Group (pounds)	Feed required (accumulative)	Cost of feed	Prices for hogs by weight groups	Total value of weight group	Difference between value and feed costs	Gestation & lactation ration plus production costs	Break-even Price	Profit
Birth to 160.....	525.31	13.658						
161-180.....	608.63	15.824	15.48	27.864	12.04	3.58	2.41	12.28
181-200.....	691.95	17.991	15.76	31.520	13.53	3.58	2.79	12.33
201-220.....	784.16	20.388	15.66	34.452	13.574	3.58	3.17	12.37
221-240.....	876.37	22.785	15.01	36.024	13.239	3.58	3.60	12.53
241-260.....	978.72	26.425	15.00	39.000	12.575	3.58	4.02	12.66
261-280.....	1091.22	28.372	14.88	41.664	13.292	3.58	4.30	13.20
281-300.....	1203.72	31.297	14.55	43.650	12.853	3.58	4.62	13.06
301-320.....	1316.22	34.222	14.10	45.12	10.868	3.58	5.02	13.24
								13.32

Feed costs were calculated with the price of the ration at \$52 per ton.

Average prices were calculated from preliminary data, Union Stockyards, West Fargo (table I).

The cost of the gestation ration is figured at 18 cents per day, with the lactation ration (6 weeks) at a cost of 28 cents per day. This is a total cost of \$32.18 per sow. Considering a 9 pig average, this would be a cost of \$3.58 per pig. The cost per pig would increase as litter size decreased with the resulting profit being less. Production and management are considered to be 15 percent of the total costs of producing hogs to market weights. As the weight of your hog decreases, these costs become a lower percentage of the total costs. These costs consist of interest on investment, depreciation, repairs and labor.

Break even price is the cost of feed, the cost of gestation and lactation rations, and the production and management costs.
 Profit is determined from average price from preliminary data, Union Stockyards, West Fargo, 1955, assuming that the hogs were sold at the various weight groups and received the average yearly price for that weight range. The feed costs (1) and gestation, lactation costs (3) are subtracted from the price received.

marketed at various weights up to 260 pounds. The number of hogs marketed above 260 pounds is small and the greater part of these hogs are marketed during spring months when prices were generally higher.

Summary

1. No single weight group received the highest price throughout the year. The 200 to 220 pound group was the most consistent (fig. 1).
2. The weight at which hogs are marketed is an important factor in the return over feed and production costs.
3. Preliminary data indicate the best weight range to market hogs is 200 to 220 pounds.



COVER STORY

WILD OATS infestation can be a serious problem. There is no quick or easy way to get rid of them. But it is possible to clean up a field by following good rotation and tillage practices. The most reliable ways for small grain farmers to eliminate the weed are those based on getting the seed to sprout and then to destroy the plants before they reseed. You should know the basic facts about wild oats. It's to your economic advantage to control them. Ask your county extension agent for NDAC Circular A-276, "Controlling Wild Oats."

TREND

ONE of the dominant characteristics of North Dakota agriculture is continued change. With bigger and more efficient farm machinery, improved plants and animals, and increased use of fertilizers and other agricultural chemicals, farmers produce much more than formerly in each hour of work. With increased prices for materials and equipment adding to their costs, farmers are finding it essential to increase the size of their business to maintain a satisfactory income.

The agricultural census of 1954 indicates some of the adjustments North Dakota farmers are making. Family-sized farms that provided an adequate income only a few years ago are being replaced by larger units. The trend is not as pronounced in North Dakota as it is in such states as Wyoming, and the decrease in number of farms is greater in both South Dakota and Minnesota. However, North Dakota exceeds South Dakota and Minnesota in the percentage increase in the average size of farms. (figure 1)

In North Dakota the number of farms of 1,000 acres and over increased from 8,775 in 1950 to 9,925 in 1954. As a substantial number of large farms become larger, the number of medium and small farms decline. The 500 to 999 acre farms decreased only slightly from 22,086

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