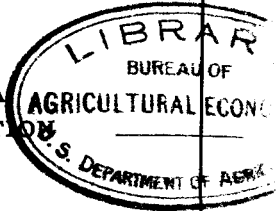


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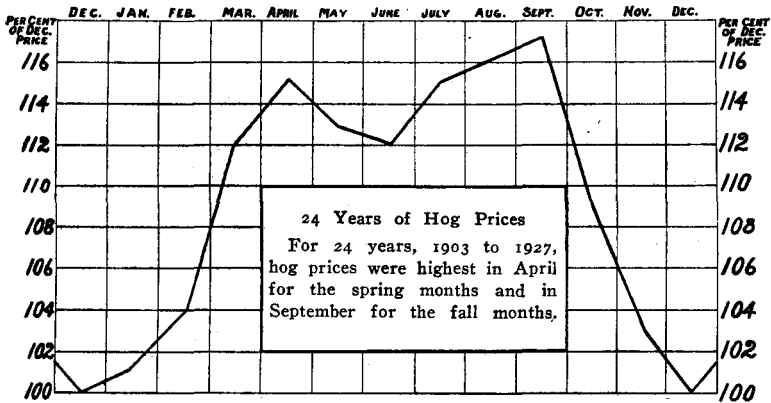


SHALL GROWING PIGS BE FULL FED?

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DIVISION OF ANIMAL HUSBANDRY

TWENTY-FOUR YEARS OF HOG PRICES



UNIVERSITY FARM, ST. PAUL

SHALL GROWING PIGS BE FULL FED?

E. F. FERRIN and M. A. McCARTY¹

One of the greatest problems in pork production is that of determining the quantity of grain to be fed during the summer to growing pigs. The most common practice is to limit the grain to the amount that will allow for a slow rate of growth, as it is assumed that with concentrates high in price the cost of gains on a full feed will not be economical. In summer, pastures are a cheaper source of nutrients than are other feeds. More efficient use of pasture crops is made by hungry pigs than by those having plenty of grain, consequently limiting the allowance of grain is logical if one of the main considerations is to get as high a return as possible per acre of pasture.

Hogging-off standing corn is a common practice in some localities. Pigs grown on limited rations of grain are more suitable for this purpose than those that have been full fed from the weaning age, as they are more active and not so nearly finished for market. In fact, March farrowed pigs that are full fed are close to market condition by the time new corn is available, so are fed almost entirely on the old crop of grain.

Spring pigs that are to follow cattle on feed in the fall and winter should not be full fed prior to this time, as they become too fat and inactive to be best suited to the feed lot. As a matter of fact, early farrowed pigs should be ready for market when cattle are put on feed. The later spring pigs will be nearer the right weights for following cattle.

The greatest advantage to be gained by the liberal feeding of grain to growing pigs is that they will sell at a higher price in the fall than during the winter. Prices in September and early October are highest and those in December and January lowest of the yearly price quotations. At least five to six months are necessary to grow pigs to market weight, and unless they are farrowed in March or early in April they can not be made ready for sale in September even by full feeding.

The light market receipts of hogs in September with the consequent high price offers an opportunity for some hog producers to profit by selling their spring farrowed pigs at this favorable season. It means

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carrying over corn from one year's crop until the following summer before feeding it instead of using the grain soon after it is harvested, as is the common practice.

In order to have specific and accurate information on the question of full and limited feeding of grain for the use of Minnesota hog growers, an experiment was planned that would compare the two methods. As a half feed of concentrates is about the minimum necessary to keep growing pigs in a healthy, thrifty condition, those on limited rations were hand fed 50 per cent as much of several feeds as similar self-fed pigs consumed. Two lots of ten pigs each on alfalfa pasture were fed in this way and two additional groups in dry lots. Dry lot feeding during the summer months is not recommended but these pigs gave an opportunity for estimating the value of pasture when grain is limited as compared with the self-feeding plan. The full-fed lots, one in a small concrete paved yard and the other on alfalfa pasture, were self-fed free choice shelled corn, standard middlings, tankage, and a mineral mixture. Two other groups of similar pigs were given by hand feeding one-half as much of each feed except the mineral mixture. This was composed of equal parts by weight of charcoal, common salt, marl, slaked lime, and bonemeal, and was self-fed to each of the four lots.

Automatic fountains supplied water at all times to each lot of pigs. The dry lot groups were sheltered in a farrowing house, those on pasture were provided with movable houses and sun shades.

The pigs of the Duroc Jersey and Poland China breeds, were farrowed in March and started on feed when approximately 90 days of age. When each lot reached an average weight per pig of 200 pounds, it was weighed out of the experiment. The feeding was begun in the summer of 1925 and was repeated in 1926 under similar conditions in order to check the results.

THE TRIAL IN 1925

Of the ten pigs constituting each of the four lots, two were Duroc Jerseys and eight Poland Chinas. More than half of the forty head were farrowed during the first week of March, the others before the end of the month. No substitutions were made in any lot; all the pigs remained on feed until the close of the trial. The 50 per cent ration of concentrates was just about enough to allow a slow rate of growth without stunting the pigs, but was close to the minimum for the dry lot group.

After being on a half feed of grain for 90 days, Lots 2 and 4 were given a full feed of new corn and tankage, middlings being dropped from the ration. At approximately the same time the self-fed lots, I and III, reached the final weight of 200 pounds. These pigs were fed out on corn grown the previous year and were ready for market at this weight. Table I gives a summary of the results for 1925.

TABLE I
FULL FEEDING COMPARED WITH LIMITED FEEDING—JUNE 22 TO NOVEMBER 7, 1925

Lot	I	II	III	IV
	Full fed	Limited	Full fed	Limited
	Shelled corn st. middlings tankage minerals dry lot	Shelled corn new ear corn st. middlings tankage minerals dry lot	Shelled corn st. middlings tankage minerals alfalfa pasture	Shelled corn new ear corn st. middlings tankage minerals alfalfa pasture
Started on feed	June 22	June 22	June 22	June 22
Reached 200 lb. weight	Sept. 23	Nov. 7	Sept. 20	Oct. 22
Av. initial wt. per pig, lb. .	66.97	66.60	68.17	66.97
Av. final wt. per pig, lb.	201.23	200.40	204.43	199.67
Av. total gain per pig, lb.	134.26	133.80	136.26	132.70
Days on limited feed .....	..	90	..	90
Days on full feed	92	47	89	31
Total days on feed	92	137	89	121
Av. daily gain per pig, lb.	1.46	.98	1.53	1.10
Feed for 100 lb. gain				
Shelled corn (old crop), lb.	282.44	143.76	293.55	148.57
New corn (shelled basis), lb.	..	232.88	..	193.82
Standard middlings, lb.	70.31	30.57	34.64	14.84
Tankage, lb.	37.69	31.62	17.69	19.19
Minerals, lb.	1.64	2.73	.79	1.39
Total feed for 100 lb. gain, lb.	392.08	441.56	346.67	377.81
Feed cost for 100 lb. gain				
Shelled corn (old crop) ..	\$5.04	\$2.57	\$5.24	\$2.65
New corn (shelled basis) ..	..	2.70	..	2.25
Standard middlings .....	.92	.40	.45	.19
Tankage	1.22	1.03	.57	.62
Minerals .....	.05	.08	.02	.04
Alfalfa pasture* .....	..	..	.45	.84
Feed cost for 100 lb. gain ..	\$7.23	\$6.78	\$6.73	\$6.59

Feed Prices—Average Minneapolis quotations, June 23 to November 7, 1925:

Shelled corn (old crop)	\$1.00	per bushel
New corn (shelled basis) .....	.65	“ “
Standard middlings	26.25	“ ton
Tankage	65.00	“ “
Minerals	3.00	“ hundred

* Alfalfa pasture valued at \$25 per acre for 6-months pasture season, carrying 20 pigs per acre on full feed or 15 pigs per acre on limited feed.

All groups of pigs made good gains, even Lot II, which was fed a half ration of grain without pasture. These pigs received daily only

1.87 pounds of corn, 0.45 pound of middlings, and 0.25 pound of tankage while on the limited ration. Lot IV was fed half as much of each feed as Lot III consumed, amounting to 1.94 pounds of corn, 0.22 pound of middlings, and 0.16 pound of tankage. The pasture used by Lot IV produced 0.12 pound greater daily gain per pig with an allowance of concentrated feeds of 0.25 pound less per day than was given each pig of Lot II. When full feeding of corn and tankage was begun, the pasture-fed pigs were 12.5 pounds per head heavier than the pigs of the dry-lot group, consequently they reached market weight 16 days earlier than those of Lot II.

The small saving in the feed cost per hundred pounds gain for Lot IV as compared with Lot II is not significant except as it occurs in the purchased feeds—middlings and tankage. The alfalfa pasture saved an expenditure of 62 cents for these feeds for every hundred pounds of pork made.

Comparing the full-fed groups in dry lot and on pasture, one-twentieth acre of green feed accounted for 0.07 pound more gain daily per pig. But the alfalfa saved 36 pounds of middlings and 20 of tankage for every hundredweight of pork made. Because the pasture lot ate more corn, there was a total feed saving, including the mineral mixture, of 46 pounds for every hundred pounds of gain. Counting the pasture charge, alfalfa reduced the cost of 100 pounds gain by 50 cents. The saving is effected, not in the corn but in tankage, highest priced of all the feeds, and also in middlings, which in this case was cheaper per pound than corn.

One outstanding fact that may not always be fully appreciated by feeders is the greater total amount of corn necessary to bring the pigs on limited feed to market weight. This comparison holds good whether dry lot or pasture conditions are considered. One means of partially making up the difference in the price of corn as between summer and fall is the saving in the amount needed for full-fed pigs. Less corn is represented in the pig marketed without going hungry, than in the one kept during the summer on a light feed.

Table II shows a comparison of the feed costs per pig on the basis of 1925 prices and also with an average of the feed costs for a 5-year period. A limited ration of grain resulted in a lower cost of feed per pig because of the high price of corn during the summer. The total cost of full feeding was only a little higher because a smaller amount of feed was required to take the full-fed pigs to market weight than for those on a half ration of grain during the summer. The outstanding difference of the two plans of management is the price received for the pigs when finished for market. September prices are consider-

ably higher than October or November quotations; the difference in 1925 was approximately \$1.50 per hundred pounds and for the 5-year average \$1.40. This higher selling price makes the margin over feed cost considerably more for the pig marketed early than for the one getting to market later in the season.

TABLE II
FULL FEEDING COMPARED WITH LIMITED FEEDING OF PIGS, 1925

Lot	I Full fed	II Limited	III Full fed	IV Limited
Started on feed	June 23	June 23	June 23	June 23
Reached 200 lb. weight	Sept. 23	Nov. 7	Sept. 20	Oct. 22
Days on feed	92	137	89	121
Total gain per pig, lb.	134.26	133.80	136.26	132.70
Av. daily gain per pig, lb.	1.46	.98	1.53	1.10
Cost of feed per pig				
1925 feed prices	\$9.71	\$9.07	\$9.17	\$8.74
1921-25 feed prices	7.81	7.45	7.43	7.75
Market value when finished, 1925				
Per cwt.	12.85	11.50	12.85	11.25
Per pig	25.86	23.05	26.27	22.46
Market value when finished, 1921-25 av.				
Per cwt.	10.05	8.55	10.05	8.80
Per pig	20.72	17.13	20.55	17.57
Margin over feed cost, 1925 ..	16.15	13.98	17.10	13.72
Margin over feed cost, 1921-25 av.	12.91	9.68	13.12	9.82

Feed Prices—	1925	1921-25 av.
Shelled corn (old crop)	\$1.00	\$.78 per bushel
New corn (shelled basis) ..	.65	.63 " "
Standard middlings	26.25	21.75 " ton
Tankage	65.00	57.50 " "
Minerals	3.00	3.00 " hundred
Alfalfa pasture	25.00	25.00 " acre

RESULTS IN 1926

During the summer of 1926 the trial was repeated, with conditions duplicated as nearly as possible. The feeding period began on June 8, two weeks earlier than in 1925, and the average initial weight per pig was 6 pounds less. The rate of gain of each lot was slower in 1926 than in 1925, hence more time was necessary for the pigs to reach an average weight of 200 pounds. This slowing up in gains affected each lot about the same, so the variations between groups in 1926 were closely comparable to the results of the 1925 trial. It can not be expected that the results will be exactly the same in different years but with similar conditions they should check closely. Seasonal variations, especially in pasture trials, are certain to make some difference. The gains in weight for the corresponding lots in 1925 and 1926 are reasonably close. Table III gives the results for 1926.

TABLE III
FULL FEEDING COMPARED WITH LIMITED FEEDING, JUNE 8 TO NOVEMBER 12, 1926

Lot	V	VI	VII	VIII
	Full fed	Limited	Full fed	Limited
Ration	Shelled corn st. middlings tankage minerals dry lot	Shelled corn new ear corn st. middlings tankage minerals dry lot	Shelled corn st. middlings tankage minerals alfalfa pasture	Shelled corn new ear corn st. middlings tankage minerals alfalfa pasture
Started on feed	June 8	June 8	June 8	June 8
Reached 200 lb. weight	Oct. 3	Nov. 21	Sept. 14	Nov. 2
Av. initial weight per pig, lb.	61.53	61.53	61.23	61.73
Av. final weight per pig, lb.	202.1	200.2	203.5	205.8
Av. total gain per pig, lb. ..	140.57	138.67	142.27	144.07
Days on limited feed .....	..	112	..	112
Days on full feed	117	54	98	35
Total days on feed	117	166	98	147
Av. daily gain per pig, lb.	1.20	.84	1.45	.98
Feed for 100 lb. gain				
Shelled corn (old crop), lb.	325.98	177.63	323.77	217.34
New corn (shelled basis), lb.	..	265.11	..	169.93
Standard middlings, lb.	55.78	42.77	15.75	16.31
Tankage, lb.	33.47	31.08	14.09	16.14
Minerals, lb.	1.64	1.01	.84	.62
Total feed for 100 lb. gain, lb.	416.87	517.60	354.45	420.34
Feed cost for 100 lb. gain				
Shelled corn (old crop) ..	\$4.37	\$2.38	\$4.34	\$2.91
New corn (shelled basis) ..	..	2.37	..	1.52
Standard middlings .....	.63	.48	.18	.18
Tankage	1.17	1.09	.49	.56
Minerals .....	.07	.04	.03	.02
Alfalfa pasture* .....	..	..	.48	.87
Feed cost for 100 lb. gain ..	\$6.24	\$6.36	\$5.52	\$6.06

Feed Prices—Average Minneapolis quotations June 8 to November 21, 1926:

Shelled corn (old crop)	\$0.75 per bushel
New corn (shelled basis) .....	.50 " "
Standard middlings	22.50 " ton
Tankage	70.00 " "
Minerals	4.00 " hundred

* Alfalfa pasture valued at \$25 for 6 months pasture season, carrying 20 pigs per acre on full feed or 15 pigs per acre on limited feed.

As in 1925, the pigs fed a half ration of grain in a dry lot made the slowest gains with the largest total of feeds for 100 pounds gain. A 50 per cent grain ration supplemented by alfalfa pasture resulted in 0.14 pound more gain daily per pig with a considerable saving in grain. The alfalfa pasture saved nearly 100 pounds of feed for each hundredweight of pork produced by limited feeding. A considerable part of this feed saving consisted of tankage and middlings, feeds that can not be produced on the farm.

Full feeding during the summer required less feed for 100 pounds gain than limited feeding with plenty of new ear corn after September

28. Less grain is necessary to make pork when the appetites of pigs are satisfied than when the pigs are kept hungry. The higher price of grain in summer is likely to make the gains of full-fed pigs cost more but this liberal feeding is a money making plan when the finished pigs sell at considerably higher prices because of earlier marketing.

The saving of feeds by the use of alfalfa pasture when the dry lot, self-fed group is compared with the self-fed lot in pasture amounted to 62 pounds for each hundredweight of gain. This saving was chiefly in middlings and tankage, which made up most of the total of \$1.20 smaller cost of feeds for the pasture lot. From this must be deducted the pasture charge of 48 cents, leaving the net saving credited to alfalfa pasture as 72 cents per hundred pounds of pork.

TABLE IV

FULL FEEDING COMPARED WITH LIMITED FEEDING OF PIGS, 1926

Lot	V Full fed	VI Limited	VII Full fed	VIII Limited
Started on feed	June 8	June 8	June 8	June 8
Reached 200 lb. weight	Oct. 3	Nov. 21	Sept. 14	Nov. 2
Days on feed	117	166	98	147
Total gain per pig, lb.	140.57	138.67	142.27	144.07
Av. daily gain per pig, lb.	1.20	.84	1.45	.98
Cost of feed per pig				
1926 feed prices.....	\$8.77	\$8.82	\$7.85	\$8.73
1921-25 feed prices	8.66	9.49	7.97	9.32
Market value				
when finished, 1926	Per cwt. 13.25 Per pig 26.78	11.25 22.53	13.25 26.95	12.25 25.22
1921-25 av.				
Market value				
when finished, 1921-25 av.	Per cwt. 10.05 Per pig 20.30	8.55 17.11	10.05 20.45	8.80 18.11
1921-25 av.				
Margin over feed cost, 1926 ..	18.01	13.71	19.10	16.49
Margin over feed cost, 1921-25 av.	11.64	7.62	12.48	8.79

Feed Prices

	1926	1921-25 av.
Shelled corn (old crop)	\$.75	\$.78 per bushel
New corn (shelled basis) ....	.50	.63 " "
Standard middlings	22.50	21.75 " ton
Tankage	70.00	57.50 " "
Minerals	4.00	3.00 " hundred
Alfalfa pasture	25.00	25.00 " acre

Early marketing was a decided advantage in 1926, as is shown in Table IV. From September 14, when Lot 7 was ready for market, until November 21, when Lot 6 was finished, there was a decline in the price of hogs of \$2.00 per hundredweight. The margin per pig over feed cost was \$5.39 greater for Lot 7 than for Lot 6. Nearly as large a difference prevailed for the average of 5 years' prices on these dates; the corresponding figure being \$4.86. It is this consistent

advantage in price for pigs marketed early that makes full feeding more profitable than limited rations of grain in summer when early farrowed pigs are fed.

Full feeding in dry lot, while not so satisfactory as full feeding on pasture, excelled in margin over feed cost the pasture group on a limited grain ration. This difference is due to the higher selling price of the full-fed pigs. While limited feeding saves on the cost of feeds it loses in the price at which the finished hogs are sold more than enough to make up the difference.

TABLE V
FULL FEEDING COMPARED WITH LIMITED FEEDING, 1925 AND 1926

Lots	I and V Full fed	II and VI Limited	III and VII Full fed	IV and VIII Limited
	Shelled corn st. middlings tankage minerals dry lot	Shelled corn new ear corn st. middlings tankage minerals dry lot	Shelled corn st. middlings tankage minerals alfalfa pasture	Shelled corn new ear corn st. middlings tankage minerals alfalfa pasture
No. pigs fed	20	20	20	20
Av. initial wt. per pig, lb. ..	64.25	64.07	64.70	64.35
Av. final wt. per pig, lb.	201.67	200.30	203.96	202.73
Av. total gain per pig, lb. ..	137.42	136.23	139.26	138.38
Days on limited feed .....	..	101	..	101
Days on full feed	104.5	50.5	93.5	33
Total days on feed	104.5	156.5	93.5	134
Av. daily gain per pig, lb. ..	1.33	.91	1.49	1.04
Feed for 100 lb. gain				
Shelled corn (old crop), lb.	304.21	160.70	308.66	182.96
New corn (shelled basis), lb.	..	248.99	..	181.88
Standard middlings, lb.	63.04	36.67	25.19	15.57
Tankage, lb.	35.58	31.35	15.89	17.67
Minerals, lb.	1.64	1.87	.82	1.00
Total feed for 100 lb. gain, lb.	404.47	479.58	350.56	399.08
Feed cost for 100 lb. gain				
Shelled corn (old crop) ..	\$4.71	\$2.48	\$4.79	\$2.78
New corn (shelled basis) ..	..	2.53	..	1.88
Standard middlings .....	.77	.44	.32	.19
Tankage	1.20	1.06	.53	.59
Minerals .....	.06	.06	.02	.03
Alfalfa pasture* .....	..	..	.47	.85
Feed cost for 100 lb. gain	\$6.74	\$6.57	\$6.13	\$6.32

Feed Prices—Average Minneapolis quotations June to October, 1925-26:

Shelled corn (old crop)	\$0.875 per bushel
New corn (shelled basis) .....	.575 " "
Standard middlings	24.50 " ton
Tankage	67.50 " "
Minerals	3.50 " hundred

* Alfalfa pasture valued at \$25 for 6 months pasture season, carrying 20 pigs per acre on full feed or 15 pigs per acre on limited feed.

In order to get an average that shows a little more accurately than one year what the results of the usual season will be, the figures for 1925 and 1926 are combined in Table V. Twenty pigs were fed in each of the four ways; the average initial weight being 64 pounds. The final weights averaged approximately 200 pounds. Full feeding on alfalfa pasture produced pork in the shortest time at the least expense. Limited grain feeding on alfalfa pasture during the summer with a full ration of new corn in the fall required slightly less feed for each hundred pounds of gain by the pigs than continued full feeding in dry lot. The difference in both the amount and the cost of the feed was small.

In dry lot, full feeding of grain required a smaller total to finish pigs than a limited ration in summer and a full feed in the fall. The difference was considerable—75 pounds of feed for each hundred-weight of pork produced. Because of the lower price of corn in the fall, limited feeding resulted in a slightly cheaper cost of gains but it took 52 days longer to get the pigs to market weight. This difference in time is an important item considering the declining prices usually prevalent in the fall of the year.

Alfalfa pasture reduced the time necessary to grow pigs to market weight whether grain were self-fed or limited in amount. The difference between full feeding on pasture and in dry lot was 11 days. When only a half feed of concentrates was given, the alfalfa pasture saved 22.5 days. It is very doubtful if such limited feeding of grain in dry lot is advisable unless feeds are abnormally high in price during the summer.

The principal object in limiting the amount of corn in summer is to reduce the amount of high priced grain consumed by growing pigs. In this experiment the pigs receiving a full feed were fed entirely upon corn of the previous year's crop. Using the average prices for five years, new corn in the fall, calculated upon the same moisture basis as old corn, was 15 cents per bushel cheaper. The proportion of new corn consumed by the pigs fed a limited ration in dry lot was 61 per cent of the total of old and new corn. For the pigs limited in feed on alfalfa pasture new corn constituted 50 per cent of all the grain eaten. This difference is accounted for by the fact that the pasture group consumed a larger amount of corn daily and reached market weight earlier than the dry lot group. The dry lot pigs were fed 22.5 days longer on new corn.

The cost of 100 pounds gain should be considered in connection with the price at which the pigs will sell when ready for market. For this purpose Table VI gives the cost of feed and the value of the pig when finished for market.

TABLE VI
FULL FEEDING COMPARED WITH LIMITED FEEDING
Average of two trials, 1925-26, 80 pigs fed

Lots	I and V Full fed	II and VI Limited	III and VII Full fed	IV and VIII Limited
Days on feed	105.5	150.5	93.5	134
Total gain per pig, lb.	137.42	136.23	139.26	138.39
Av. daily gain per pig, lb. ..	1.33	.91	1.49	1.04
Cost of feed per pig				
1925-26 prices	\$9.24	\$8.95	\$8.51	\$8.74
1921-25 prices	8.24	8.47	7.70	8.53
Market value				
when finished				
1925-26 av. Per cwt.	13.05	11.38	13.05	11.75
1925-26 av. Per pig	26.32	22.79	26.61	23.84
when finished				
1921-25 av. Per cwt.	10.05	8.55	10.05	8.80
1921-25 av. Per pig	20.51	17.12	20.50	17.84
Margin over feed cost 1925-26				
av.—Per pig	17.08	13.85	18.10	15.11
Margin over feed cost 1921-25				
av.—Per pig	12.28	8.65	12.80	9.31

Feed Prices—Average Minneapolis quotations June to October, 1925-26:

Shelled corn (old crop)	\$.875 per bushel
New corn (shelled basis) .....	.575 " "
Standard middlings	24.50 " ton
Tankage	67.50 " "
Minerals	3.50 " hundred

Alfalfa pasture valued at \$25 for 6 months pasture season, carrying 20 pigs per acre on full feed or 15 pigs per acre on limited feed.

Feed costs do not vary a great deal with different methods of handling the pigs, except that alfalfa pasture accounts for some saving in expense. There is a considerable difference in the value of the pigs on the market because of the declining price tendency from early to late in the fall. Full feeding resulted in early marketing and a price of \$10.05 per hundredweight on the 5-year basis. Later marketing, brought about by limited feeding of grain, caused a drop in price of \$1.25 to \$1.50 per hundredweight. Thus the margin over feed cost is influenced chiefly by the price at which the pigs sell.

Full feeding on alfalfa pasture easily ranks as the most profitable method with conditions such as those of this experiment. Full feeding in dry lot has a margin over both the methods of limiting grain. Of these, the pasture plan is the most economical. These facts apply to pigs farrowed in March, which can be made ready for market in

the early fall by full feeding. The same conditions do not hold for late spring pigs, which can not be marketed early in finished condition even by full feeding from the weaning age. In round numbers the margin over feed cost when these March farrowed pigs were full fed was from \$3.00 to \$3.50 per pig greater than for similar pigs kept on a half ration of grain during the summer.

The labor of feeding pigs is one of the items of the total cost. Because the full-fed pigs went to market sooner, less time was spent in feeding them than those on half rations. The average labor expended in full feeding 10 pigs in dry lot from a weight of 65 pounds until they reached a weight of 200 pounds was 9.4 hours. The labor charge at 40 cents per hour amounted to \$3.76. For the same method of feeding 10 pigs on pasture the time consumed was 8.45 hours and the cost \$3.38. The costs of feeding the comparable lots on limited rations were \$8.10 and \$7.92 respectively.

Risk from diseases is decreased by a shorter feeding period. In the fall hog cholera is sometimes prevalent and pigs not immunized against cholera are subject to considerable risk of loss. Full-fed pigs go to market before the disease is as prevalent as it is during the fall months.

If a large percentage of hog producers adopt the plan of full feeding during the summer with marketing early in the fall, the difference in prices paid for hogs will tend to become equalized between the fall and winter seasons. This will be a desirable situation resulting in a more steady supply of hogs and a more even price basis. It will reduce the present advantages of early marketing and result in higher prices for the hogs sold during the winter months. In time this readjustment probably will work out unfavorably as regards the practice of full feeding grain in summer, but there need be no fear of this situation arising in the near future. For several years full feeding of early farrowed pigs with a consequent early marketing date will offer additional chances of profit for hog producers.

CONCLUSIONS

1. In feeding pigs to a market weight of 200 pounds, 46 days were saved by full feeding as contrasted with limited grain rations during the summer.
2. Full-fed pigs consumed less feed for 100 pounds gain than pigs limited in feed.
3. The feed costs for 100 pounds gain were practically the same for the two methods of feeding.

4. On the basis of the average quotations for 5 years, full-fed pigs sold for \$1.35 per hundredweight more than pigs on a limited ration during the summer.

5. The labor cost of feeding was 44 cents per head less when the grain was not limited in amount.

6. As long as the price differential materially favors early marketed pigs, full feeding will be profitable.