

Self Feeding of Swine

Showing how, under natural conditions, the hog doesn't make a hog of himself

By L. S. Herron in the Nebraska Farmer

A hog has sense enough to feed himself and balance his own ration, not only with benefit to himself, but with profit to his owner. That has been proved by repeated tests at the Iowa Experiment Station.

Professor John M. Evvard was the man who had confidence enough in the general poise and good judgment of a hog to trust him with a self-feeder full of corn. Most of us would have thought it a case of misplaced confidence. I'll venture a lot of old hog-men thought Evvard was crazy when they heard he had turned some of his hogs loose at a never-failing fount of corn. Wouldn't they eat their heads off, or "bust"?

But they didn't do either. Instead they ate what corn they wanted when they wanted it, and prepared themselves for a trip to the stock yards at a very surprising rate. Not only that, but they made each 100 pounds of gain on less feed than hand-fed hogs required. Hence we must conclude that the hog isn't so much of a hog as we have thought. If it required confidence in the judgment of a hog to allow him free access to corn, it must have taken actual nerve to leave him at large in a pen with an open self-feeder filled with tankage. But it was justifiable nerve, for the hog showed that not only had he sense enough to feed himself economically and well, but that he could balance his own ration better than the most scientific feeder could do it for him.

Hogs Balance Own Rations

No student of animal nutrition with all his knowledge of chemistry and physiology has ever compounded a ration that would give better results than the ration a hog will compound for himself if given free access to each of the feeds included in the menu. No Evvard's confidence in the hog has put us a long way ahead. It has shown us that it is unnecessary to fret and stew over how much of this or that should go into the hog ration, and that if the feeder will put before his hogs the feeds from which an economical balanced ration may be compounded, the hogs will compute the ration and compound it themselves. "Leave it to the hog" is the latest as well as the most scientific dictum in hog feeding.

The self-feeding of hogs—they call it the "cafeteria" system at Ames, after the eating places where you pass down the line and choose what you want—would be worth while even if it did nothing but save labor. But it does more. It gives the hogs a chance to do their best, which is better than they do by the ordinary methods of hand-feeding.

Limitations of Self-Feeding

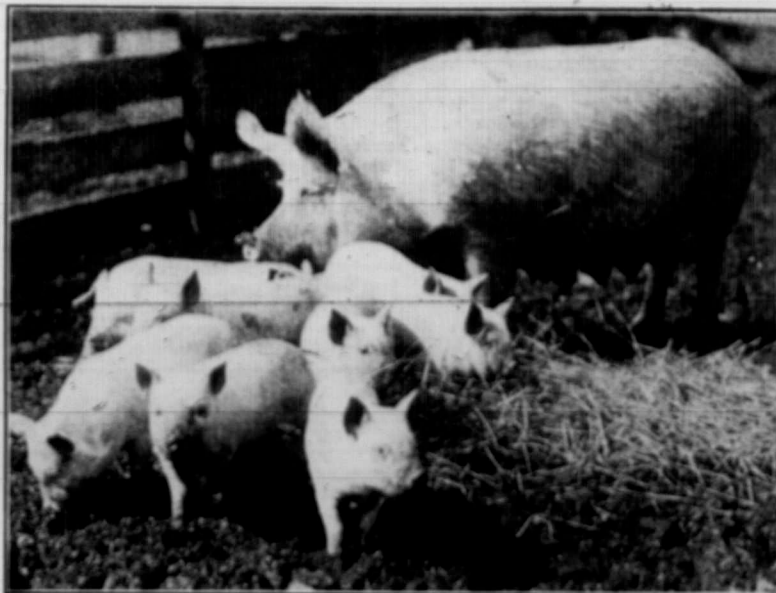
Self-feeding has its limitations, of course. It would be unwise, for example, to self-feed pregnant sows, except with very bulky feeds; they would become too fat. Neither should dry sows being carried over to another breeding period be self-fed. Gilts intended for breeding may be self-fed up to a certain point with safety, but beyond that they would become too fat for the best results.

"Don't self-feed if you want your pigs to grow slowly," and "Don't self-feed if you do not want rapid gains," are two of Professor Evvard's self-feeder "don'ts." They might be comprehended in "Don't self-feed hogs you do not want to fatten." And that is a bit too broad, for self-feeding brood sows with suckling pigs has been found a good practice. You get the idea, tho, I am sure.

To study at first hand some of the results of the "Iowa system of self-feeding swine," as they are wont to call it, I made a trip to Ames one fine September day. Professor Evvard, who has charge of the experimental work in feeding at Ames, fairly surfeited me with hog lore and feeding data.

Self-Feeding on Pasture

Well, I went to get data and to see the self-feeders in use. Numerous experiments have been made at Ames that have resulted favorably to the



THESE THRIFTY YOUNGSTERS PROVE THE SOW TO BE A VALUABLE MOTHER

self-feeding system, but from this number I have selected one which is quite typical. Four lots of spring pigs were full-fed on alfalfa pasture from weaning time until they were ready for market. Two of the lots were fed wholly by hand. A third lot was fed corn by hand, but received meat meal in a self-feeder, while a fourth lot received both corn and meat meal in self-feeders. The meat meal was fed dry, as are all the feeds in the self-feeding system. The hogs that were wholly self-fed made the largest gains, the cheapest gains and paid the highest prices for the corn. The following table gives the results in detail:

Ration	Aver. daily gain	Feed for 100 lbs. gain	Cost of 100 lbs. gain	Return per 100 lbs. gain
Ear corn, hand-fed	.95	419.86	\$3.97	75.4 cents
Ear corn, 14 p.c. meat meal, both hand-fed	1.06	385.4	\$3.96	79.6 cents
Ear corn, self-fed, meat meal self-fed	1.97	372.6	\$4.00	81.1 cents
Shelled corn and meat meal, both self-fed	1.22	364.0	\$3.81	82.9 cents

The lot that was wholly self-fed reached an average weight of 250 pounds, and the pigs were off



ALL PRETTY MUCH OF A MUNCHNESS

to market and out of the way of cholera or other diseases twenty-six days before any of the other lots had attained that weight. It is important to consider that as well as the cheapness of gains and the profit. The results of this experiment show what may be expected of self-feeding on pasture in growing and fattening hogs from weaning time to maturity. Whenever rapid gains are desired self-feeding on pasture is in order.

It is in the dry-lot fattening of swine, perhaps, that the value of the self-feeding system has been most clearly established. The method has given results in dry-lot feeding so uniformly good that Professor Evvard told me he could not think of any condition in which it would not be profitable to self-feed the corn. Whether it would be profitable

to self-feed the protein supplement would depend upon the feeds used, as I shall discuss later. Last year at Ames a lot of pigs kept in a dry lot from weaning time until they were ready for market, and self-fed on the "cafeteria" plan, weighed an average of 316 pounds apiece at the age of eight months and four days. They had free access to the following, each in separate self-feeder: Shelled corn, meat meal, whole oats, oil meal, charcoal, ground limestone and rock salt. These Iowa pigs, which fed themselves, weighed eight more pounds per head in three days' less time than another lot of pigs that were hand-fed according to the most approved methods of Professor Deitrich, the hog feeding authority of the University of Illinois.

Big gains may not always be cheap gains, of course. Big gains may be made at an excessive cost unless the feeder pays careful attention to the selection of feeds. Oats have not been found a profitable feed to use in fattening hogs at Ames. Oil meal has been disappointing as a protein supplement. Meat meal or tankage has been the cheapest concentrated source of protein. When it

has been determined what the economical sores of the different feed constituents are, then the feeder can put those feeds before his hogs and depend upon them to make the right combination for efficiency.

Self-Feeder Saved 26 Per Cent.

In one dry-lot feeding experiment with yearling hogs at Ames, two of the lots received corn alone, without supplement. One of these lots was hand-fed and the other self-fed. The self-fed hogs made the larger gains, the cheaper gains and the greater profit, as shown in the following table:

	Aver. daily gain	Feed for 100 lbs. gain	Cost of 100 lbs. gain	Profit per 100 lbs. gain
Self-fed	2.05	449	\$4.81	\$3.42
Hand-fed	1.87	469	\$5.03	\$2.81

The self-fed hogs in this case made 10 per cent. larger gains, required 20 per cent. less feed for 100 pounds of gain, made pork at a cost of 22 cents less a hundredweight and returned 61 cents a head more profit. "Numerous other experiments along this line," Professor Evvard said, "show clearly that self-feeding of mature swine is a much more efficient method than hand-feeding." You can hardly blame him, can you, for being a bit enthusiastic over the "Iowa system of self-feeding swine"?

In one of the experiments that Professor Evvard now has going, he is seeking to learn just how much better pigs can balance their own ration when they have a chance than man can balance it for them. The pigs in Lot 1 are getting corn, tankage and middlings, each in a self-feeder, to which they have constant access. In Lot 2 the pigs are getting the same feeds as those in Lot 1, and are allowed free choice, but they have access to the self-feed boxes three times a day, instead of constantly. Lot 3 is being fed the same as Lots 1 and 2 except that the pigs have access to the self-feeders only twice a day.

These three "free choice" lots are being compared to three other lots that are being fed definitely calculated rations composed of the same feeds. In Lot 4 the pigs are getting a ration calculated by the Deitrich method. Lot 6 is getting a ration calculated by the Kellner method, in which the amount of protein fed is based upon the true or albuminoid protein. And in Lot 7 the pigs are getting a ration calculated by the Wolf-Lehmann standard, the one commonly followed in textbooks on feeding.

This experiment is not ended, but it is already evident that the pigs which are allowed to balance their own rations will win. Lots 1 and 2 are setting away from all the others, and have made an average gain of 249 and 267 pounds per head, respectively. The pigs in Lot 3, the other free choice lot, but given free access to the self-feeders only

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