

Feeding and Management

In the early days in Iowa most of the pigs were farrowed in the spring months. At that time weather conditions were more favorable and vegetative growth more abundant; inasmuch as the pig was not confined closely, he had a better chance of survival if farrowed in the spring months.

The sows were fed corn supplemented with small grain and such waste as was found about the farm until the pigs were weaned at eight to ten weeks of age. In many cases the pigs weaned themselves. After weaning they were kept in a pen or small enclosure and fed corn, oats, shorts, and such other foods as cooked potatoes and table refuse. Later they were turned out to roam over the prairie, in the woods, or into the fields after harvest.

In the fall the shoats were confined and fattened. Some were slaughtered or marketed sometime during the late winter. On many farms skim milk, buttermilk, pumpkins, artichokes, and wheat were used to supplement the corn. A great deal of "slopping" or "swilling" was practiced in those days. Soaking corn, or cooking of corn, potatoes, and pumpkins was advocated and practiced by the best of hog producers. Very little thought was

given to efficiency of production because at this time hogs had not reached economic importance.

In 1859, however, a feeding practice was recommended for more profitable production. "Put pigs on pastures in the summer, confine them in September, and feed a swill of cooked pumpkins, potatoes, beets and carrots, adding two bushels of corn and oatmeal to the barrel. Increase the meal gradually, eliminating the roots the last six weeks of feeding." Wood ashes, coal, charred cobs, charcoal, and salt were the chief mineral substances used. As early as 1865 farmers claimed that pigs got something in following cattle which did them good. Later observations and more recent trials at the Wisconsin Experiment Station have substantiated this claim as being due to certain vitamins, probably B₁₂. About 1865 clover became established, and farmers began to fence their land. The sows and pigs were also confined more and fed more heavily upon corn. Hogs became of greater importance following the Civil War, and the best farmers were beginning to "full-feed" their hogs to get them to market sooner.

The agricultural colleges and experiment stations were getting under way in the 70's but it was not until the early 90's that the Iowa Experiment Station began work with swine. R. P. Speer, director of the Iowa Agricultural Experiment Station, said in 1890: "We will not promise many experiments in breeding or feeding domestic ani-

mals, because thousands of skillful breeders and feeders are conducting such experiments in all parts of the West." In the first twelve bulletins issued by the Iowa Agricultural Experiment Station, from 1888 to 1891, the only reference to hogs refers to the occurrence of hog lice in the college herd and the use of kerosene emulsion as a control measure.

During the 90's experiments were conducted showing the value of buttermilk fed with corn. The value of cottonseed meal was tested in 1895, because of its importation into the North as a feed for swine following the drought of 1894. Breed comparisons and that of various breed crosses and comparison of bacon versus the lard breeds were conducted in 1896. Tankage in the early 1900's was becoming readily available. Beginning with 1902 and continuing for many years afterwards many tests were conducted to learn the value not only of tankage but of the many wheat by-products, oil seed by-products, and other animal by-products as supplements to corn. "Proprietary feeds," "condiments," mineral concoctions, and other stock feeds began to appear in the market, and large quantities were used by swine producers. Strong claims were made for these feeds, many of which were exploded by tests made by the Experiment Station.

It was not until 1910 that swine experimental feeding got under way on a big scale, with the

coming to Iowa State College of the late Professor J. M. Evvard. The experimental field was wide open, and Evvard soon began tests comparing the value of different rations fed to pregnant sows. Later on he ran numerous tests comparing animal and vegetable proteins. About 1918 one of the most far-reaching developments in swine feeding took place when Evvard suggested a Trio mixture (50 pounds tankage, 25 pounds corn oil cake, and 25 pounds alfalfa meal). Shortly after this the "Big 10" was adopted, consisting of five protein materials and five minerals.

These mixtures marked an important step forward in swine nutrition, and have served as the basis for the formulation of most of the mixed feeds on the market today. Hand feeding and slopping of swine had been the common practice before Evvard came to Iowa. About 1914 he began experiments comparing self feeding dry feeds in self feeders versus hand feeding and slopping. His experiments demonstrated that the hog was a good balancer of his own ration and that self feeding was a great labor saver. Since that time self feeding has been the universal practice. Evvard also established the value of minerals; his work with salt had prompted him to call it "white gold." Evvard left Iowa State College in 1930. Since then, for a period of about 15 years, the experimental work has centered on breeding rather than upon nutrition.

The organization of 4-H pig clubs during the period 1910-1915 and that of FFA chapters during the period 1928-1930 have been important factors in spreading the gospel of good feeding and management as well as that of the use of good breeding stock. The Iowa Falls FFA chapter, under the leadership of Clarence Bundy, attained state and national recognition during the 30's and early 40's for its contribution to improved swine husbandry.

During the early 30's hog production in Iowa reached its lowest ebb due to low prices and droughts. The corn-hog program was instituted in 1933 under Henry A. Wallace, and the killing of 6,200,000 little pigs was a highlight at that time in swine production. Prices reached another very low level in 1939 and 1940, but with the outbreak of war in the early 40's hogs entered a very profitable period which continued until 1951.

Many other changes have come in recent years. During the 40's the use of electricity on the farms became general, and swine producers began to use it as a source of heat in their hog houses. Brooders and heat lamps have noticeably reduced losses from chilling. In 1949 the discovery of vitamin B₁₂ proved a great factor in efficient production, as a replacer of animal protein. A year later the value of antibiotics was established and these two materials have created more interest in efficient pork production than anything recommended to

date. The year 1950 saw farrowing stalls used on Iowa farms, and swine producers find them helpful in the saving of pigs. In 1951 several commercial companies developed formulas for the raising of orphan pigs with synthetic milks. This practice involved removing the pigs from their mothers at two to three days of age and raising them on a substitute milk, along with a pig meal. The success of this procedure has not been too well established at this date.

Swine production through the use of labor saving equipment, the practices recommended by Iowa State College, and the use of better balanced rations has reached a high degree of efficiency. There are no better hog raisers to be found than the Iowa producers, and they are equipped with the "know how" to do even better.

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