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SWINE PRODUCTION IN THE SOUTHEAST**W. G. KIRK***University of Florida*

The Spaniards in 1565 (1) made their first attempt to colonize what is now Florida. The early historical references to domestic animals indicate that small numbers of cattle, goats and hogs were sent over by the state for the use of the settlers. Some of these settlers later returned to Spain to give evidence about conditions in the colony, and in connection with animals stated "that nothing ever increased, but on the contrary they died."—"Hogs did not thrive." Later efforts at colonization by the French, English and Spanish included the importation of farm animals from Europe and the West Indies.

The native hog of the southeast, so-called because it carries little if any blood of the improved breeds, probably had for its early ancestors the stock introduced by various groups of colonists. This animal is small, active and hardy, and being an excellent forager has been able to survive on the available natural feeds. A plentiful supply of roots, grasses and insects provide feed throughout the spring and summer, while the mast-producing trees and plants furnish a fattening ration which enables the storage of sufficient fat to carry it through the lean winter months. The characteristic conformation of the native hog is probably as much the result of irregular and insufficient feed as of any other factor. Little or no capital has been required for the upkeep of a native herd, and any return has been considered clear profit, a condition which prevails to some extent at the present time.

A strictly southern type of animal is known as the Guinea hog. The origin of this hog is obscure but the present type indicates that the Essex breed played some part in its development. The farmer recognizes two types, the small-boned and the large-boned Guinea hog. The former animal is small, duck-legged, with a short round body; while the latter type is a little longer in leg and body and somewhat larger. These animals are very active, good grazers and able to exist on a limited food supply. They make fair gains when put into the peanut field or other fattening crops, but are inferior in conformation and fleshing qualities to the improved breeds.

Purebred pigs have been raised to a limited extent in Florida for many years. Most of the animals show some infusion of blood of one of the known breeds. Within the last twenty years the opening of wider markets and the growth of packing house facilities have increased the demand for hogs of better quality. With

keener competition, it has become apparent that the use of breeding stock with more desirable characteristics will be necessary. Within the last eighteen months the demand for high-grade breeding animals has been greater than the supply. The drouth in nearby states and the large supply of feed in Florida has resulted in a large number of high-grade feeder pigs being shipped into the state, many of which will be retained for breeding purposes.

As the value of the individual animal is increased through the use of purebred sires, it will no longer be profitable to give as little supervision to the herd as heretofore. The importance of a regular breeding season, a more adequate food supply, and the control of diseases and parasites will be more clearly recognized. The fact that in the past three years serious losses from the screw worm fly have only been avoided by greatly increased supervision, indicates that more attention is being given the herd.

The southern producer has certain distinct advantages over producers in other parts of the country. A mild climate permits a long growing season for cultivated feed and grazing crops. In many instances two crops are grown in a field yearly, a feed crop such as peanuts or corn during the spring and summer, and a succulent grazing crop such as oats or rye during the fall and winter. There is little expense in harvesting as nearly all the crops grown are "hogged off" and the greater part of the fertilizing value returned to the soil in the droppings of the pasturing animals. The winters are not severe enough to require expensive buildings to shelter the herd.

FEED CROPS

A yearly crop rotation to provide an abundance of feed, particularly succulent roughage, will be one of the greatest factors in placing the swine industry on a permanent, profitable basis in the southeast. Oats, rye or rape can be planted from October to March; and vetch, cowpeas, or velvet beans from April to July, which crops will furnish a succession of green forage for year-round grazing. In addition, the improved perennial grasses such as carpet, centipede and Bermuda, and such native grasses and legumes as crab grass, pusley and beggarweed, can often be used advantageously to provide green pasture from spring to autumn. By the liberal and judicious use of forage the herd can be grown and maintained with a minimum of concentrated feeds.

Corn is grown throughout most sections of the southeast but in Florida other crops such as peanuts, chufas, etc., supply the major portion of the swine fattening ration. Toward the end of June the early-maturing varieties of corn are ready to be

"hogged off." Corn is frequently interplanted with peanuts, cowpeas or velvet beans and grazing is thus obtained from both crops.

The soil in many parts of the southeast is well adapted for growing peanuts. In Florida, 75 percent of the peanuts raised are used for hog feed and it has been estimated that 80 percent of the market hogs are fattened on this crop. Although pork from peanut-fed hogs is soft, it is considered more economical and practical to feed peanuts than other crops. The Spanish variety is planted in March and ready for the pigs in early July. The runner peanut is grown for fall and winter feeding. It can be left in the ground until March without much sprouting and thus furnishes feed for "hogging off" for several months. Chemical analysis (2) shows that the peanut kernel, while rich in protein and energy-producing nutrients, is extremely poor in calcium. Unpublished data indicate that serious bone disturbances often develop if growing pigs, pregnant and lactating sows are kept in the peanut fields during late fall and winter. This condition is not encountered if green forage and a mineral supplement are supplied.

Goobers, which are grown as a feed for swine in some sections of the south, are not peanuts as commonly believed, but more closely resemble the bean. Their habit of growth is similar to that of the peanut but the shell is more resistant and the kernel is shaped like a bean. The chufa is a sedge-like plant which produces small tubers relished by hogs. It is frequently used as a catch crop and when planted in July will give a fair yield of tubers in November. Chufas are relatively high in digestible nutrients, but are extremely low in digestible protein and mineral matter. As they are fairly high in oil, the pork from chufa-fattened hogs is soft. The root of the cassava is grown to a limited extent as a feed for hogs. Sweet potatoes are easily grown throughout most of the southeast and can be "hogged off" when mature. Cassavas and sweet potatoes are somewhat similar in composition, being relatively high in nitrogen-free extract, but extremely low in protein and mineral matter. Unpublished data showed that when young pigs were "hogging off" chufas or sweet potatoes, they ceased to gain at a normal rate after a short period. Upon the addition of either fishmeal or tankage the rate of gain immediately increased.

The importance of supplying mineral matter to the swine ration is evident when a survey is made of the mineral content of the feeds grown for hogs. The high average precipitation has leached from the lighter soils much of the mineral matter essential for the normal development of swine and this explains, to

some extent, the low mineral content of the feed. A mineral supplement consisting of ground limestone, bonemeal, common salt, ferric oxide and copper sulphate seems to supply the necessary mineral elements.

There are many problems confronting the swine producer in Florida. The one most obvious to an observer is the lack of breeding stock showing good conformation and quality. It has been recognized that the feeds grown for swine in Florida are deficient in total mineral matter and in certain of the essential elements. Many of the feeds are also extremely low in total and digestible protein. There is need for more authentic data showing wherein these feeds are deficient and how the deficiencies may be corrected.

At the present time an investigation is in progress at the Florida Agricultural Experiment Station to determine the value of peanuts as a swine feed. Peanuts, calcium and cod liver oil are being fed in the preliminary test and the project calls for the use in feeding trials of various mineral and protein supplements until a satisfactory ration is worked out. As circumstances permit and it seems advisable, studies of feed crops such as chufas and sweet potatoes will be undertaken.

REFERENCES

1. Colonial records of Spanish Florida Translated and edited by Conner, Jannette Thurber. The Fla. State Historical Soc. 1925.
2. Morrison, F. B. Feeds and Feeding. The Morrison Publishing Company, Ithaca, N. Y. 1936. Pages 373, 891, 936.

DISTILLERY SLOP AS A FEED FOR HOGS

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The renewed activity in the manufacture of whiskey makes available a large quantity of distillery slop for livestock feeding. The usual forms in which the slop is available are as follows: Whole or straight slop, sometimes called thick slop, is the material just as it comes from the fermenting vats with the alcohol removed and before it has passed over the sieves and presses. Thin slop is the product resulting after the whole slop has passed over the sieves and presses, which remove the material that is dried and sold as distillers' dried grain, and is a thin, watery material, whitish in color. Settled slop is the thicker portion of the thin slop which has been allowed to settle several hours and the supernatant water dipped or run off. Thicker, syrupy-like slops are made by removing larger proportions of water from the