

HOG PRODUCTION IN RELATION TO CORN-HOG RATIO AND FEED PRODUCTION IN NORTH DAKOTA

By
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Production of hogs on North Dakota farms is an important enterprise. During the period 1936-45, hogs comprised almost 15% of the total value of livestock on North Dakota farms, hogs ranked second in total value; cattle, being first were nearly 50% of the total value of North Dakota livestock.² The increasing importance of corn production in the state will result in greater attention to the production of hogs for market.

Extremely favorable weather conditions for the production of feed crops has had a marked effect on the production of all livestock on North Dakota farms. Favorable weather at the time of farrowing has an effect on the number of pigs saved both in the spring and fall. Spring pig production is more important than fall pig production in North Dakota with an average of 85% of the pigs born in the spring during the period 1935 to 1944.²

In the United States the hog-corn ratio has an effect on the hog production. This ratio is expressed as the number of bushels of corn 100 lbs. of live hogs will purchase; in practice it will denote whether it is more profitable for the farmer to sell his corn at

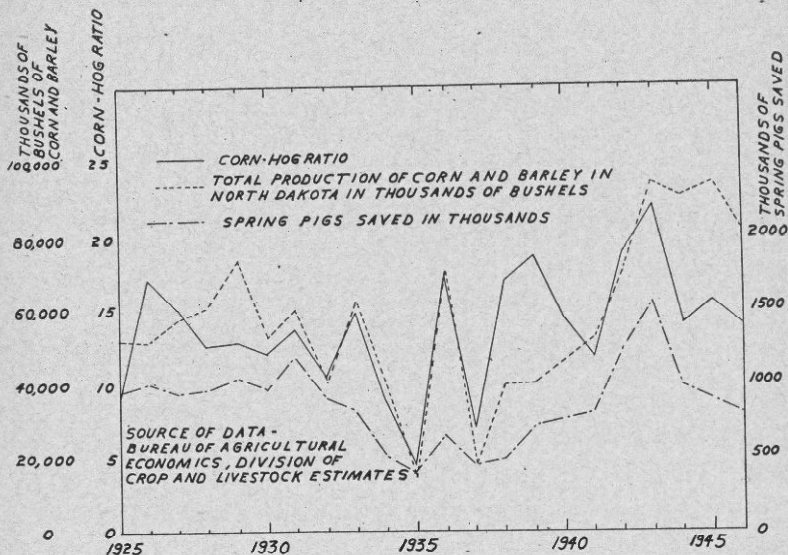


Fig. 1—Showing by years the North Dakota corn-hog ratio; the total production of corn and barley in North Dakota for the same years; and the spring pigs saved in North Dakota.

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²"January 1, Livestock Release"—February, 1947, Bureau of Agricultural Economics, Fargo, North Dakota

market or feed his corn to hogs. The average corn-hog ratio for the United States is slightly over eleven bushels; when the ratio falls below this number of bushels of corn the farmer will usually sell his corn on the market, above this ratio the American farmer will usually produce hogs to utilize the corn and other feed. This is actually selling feed crops through livestock with the purpose of obtaining a greater income from the crop. Approximately 90% of the corn produced in North Dakota is fed to livestock according to estimates by the Bureau of Agricultural Economics. Figure 1 shows the relationship of the North Dakota corn-hog ratio on November 15, and the combined production of corn and barley for the year to the number of pigs saved the following spring. The hog-corn ratio and the production of corn and barley are closely related as might be expected. When the feed supply is up the price is down, which will have the effect of increasing the number of bushels equal in value to 100 lbs. of hogs. From 1941 to the present time the corn-hog ratio in November has had an even greater effect on the sows farrowed and the pig crop the following spring, as shown by Figure 1. During the period 1925 to 1946 inclusive, both the production of corn and barley and the corn-hog ratio has influenced the production of pigs the following spring. When the ratio and corn-barley production increased, the pig crop for the following spring increased, but not always to the same degree of change. The similar movement of these two factors and number of pigs saved had a few exceptions during years when other factors such as government programs and weather had greater effect on hog production.

Both corn and barley are fed to hogs in North Dakota; Figure 1 shows the production of both crops for each year. Furthermore, since both are used for feed, the production of each crop will have an effect on the price of the other or both. It was not possible to determine how much of the barley crop is utilized for malting, although this is of importance, and since it was not deemed advisable nor relevant to arbitrarily designate a certain portion of the barley crops for commercial malting, the total production for the state was used. The November 15 corn-hog ratio was used as it was available on a comparable basis for the period of years studied and November 15, approximates the time farmers are breeding for the next spring pig crop. Since 85% of the pigs are born in the spring, there was no comparable relationship made to a fall pig crop. The largest proportion of the total barley and corn production is in the south-east, east central, north-east parts of the state, which are also the areas where the greatest number of hogs are produced.

In areas such as North Dakota where commercial farming is prevalent and where farmers are producing livestock and crops for market, the selection and combination of profitable enterprises is important. Farmers must continually adjust to weather and economic conditions, and must be quick to respond to conditions that will affect their farming operations. For this reason, the corn-hog ratio as well as the feed production, measured as corn and barley

production, will have an important effect on the farmers' decision regarding his hog production program. Figure 1 shows that North Dakota production has been affected by these two factors and it can be assumed that these same factors will continue to affect the hog production in North Dakota.

When Drought Returns to the Great Plains **A Bulletin Notice**

Farmers' Bulletin No. 1982, U. S. Department of Agriculture is entitled, "When Drought Returns to the Great Plains." Tom Dale, information specialist of the Soil Conservation Service, writes this Farmers' Bulletin under the above title.

The bulletin points out some methods that have proved successful in controlling wind erosion during periods of drought. It implies that the United States may have another dust bowl but that we do not need to have another dust bowl. Furthermore it strongly emphasizes that we should prepare for the next drought so we may be prepared when the drought strikes.

The document can be obtained from the Superintendent of Documents, Washington, 25, D. C., for five cents.

Sugar-beet Tops Fertilizing and Feeding Value **(An Abstract)**

Sugar beet tops from a crop of 15 tons of roots per acre containing 3000 pounds of dry tops are worth \$21.94 per acre figuring nitrogen at 11½ cents a pound; phosphoric acid (P_2O_5) at 6½ cents a pound; and potash (K_2O) at 5½ cents a pound. The tops contain 81 pounds of nitrogen worth \$9.32; 16.5 pounds of phosphoric acid worth \$1.07, and 210 pounds of potash worth \$11.55, or a total value of fertilizer constituents worth \$21.94 per acre. So say L. E. Dunn and C. O. Rost in the Minnesota Agricultural Experiment Station Bulletin 391. They point out the above amounts of nitrogen are equivalent to the amount contained in 400 pounds of 20 percent sulphate of ammonia; and the above amounts of potash equal to the potash in 350 pounds of 60 percent muriate of potash.

These authors conclude that sugar beet tops are about equal to alfalfa hay in protein and they are between alfalfa hay and corn in nitrogen-free extract. "Nitrogen-free extract" includes sugars, starches, etc. They reach the conclusion that a ton of dried beet tops grown in the Red River Valley are about equal in feeding value to a ton of alfalfa hay or 246 bushels of corn.—(H.L.W.)

"The Influence of Season on Reproduction in Turkeys" is the title of an article by Jesse E. Parker, formerly Poultry Husbandman at the North Dakota Agricultural Experiment Station. The article appeared in Vol. 26, No. 2, Mar. 1947 issue of Poultry Science. Reprints will be supplied upon requests sent to the Information Department, State College Station, Fargo, N. Dak.