• *Fats and Oils Report*

Sows, Pigs and Corn

THERE HAVE BEEN MANY ATTEMPTS to relate to each other the various economic factors pertaining to the production and prices of hogs. Most such attempts have been frustrated by the inaccuracy of figures on sows farrowing and pigs produced. There is also indecision on the amount of corn produced, and the amount fed to hogs. One needs only to recall the recent revisions of these figures for a series of years based on the 1964 census of agriculture. Then there is always the revision of the previous year's data after the current year has elapsed.

Such conditions are most likely unavoidable in view of the immensity of the task, and are therefore considered one of the occupational hazards of economic studies of agriculture. At the same time, economists must go on analyzing with the figures available, making adjustments at a later date for corrected information.

Short-range analysis is especially hazardous because of such modifications, and because of short-term conditions which tend to distort the accurate identification of cause and effect. There is always the possibility that some farmers do not accurately report their hog and corn production information for fear that doing so will adversely affect price. And as for reports on farrowing intentions and planting intentions, these are published for the express purpose of allowing farmers to adjust their activities so as to achieve a more favorable price. Furthermore, weather conditions at corn harvest time may make a significant difference in how much is sold into the cash market and how much is "hogged-down" right in the field.

In a special report on the "Seasonality in Hog Slaughter and Prices," Donald Seaborg of USDA says in part:

"The seasonal nature of production is important, but it explains only part of the changes in hog slaughter and hog prices. Variations also occur because of cyclical and trend movements in production. These factors and changes in demand are probably even more important than seasonal variations in determining future slaughter and price activity.

"Seasonality of hog slaughter accounts for about 70% of the month-to-month changes in hog slaughter. The cyclical nature of hog production, however, is much more important in determining changes in hog slaughter that take place over longer periods of time and accounts for over 95% of the changes in slaughter when year-to-year changes are compared.

"Hog prices respond to the number of hogs slaughtered and the demand for pork. Thus, hog prices generally are highest in the summer when slaughter is small and lowest in the fall and winter when slaughter is large. . . . However, the seasonal price pattern is relatively unimportant for explaining price changes over longer periods. Thus, the reliability of a seasonal index as a tool in predicting hog prices is much lower than using a seasonal index to aid in predicting hog slaughter."

In Fig. 1 it is readily seen how the fall pig crop is closely related to the slaughter of barrows and gilts during the following February-June period. This is as one might suppose, with variations to allow for breeding hard replacement and expansion or contraction.

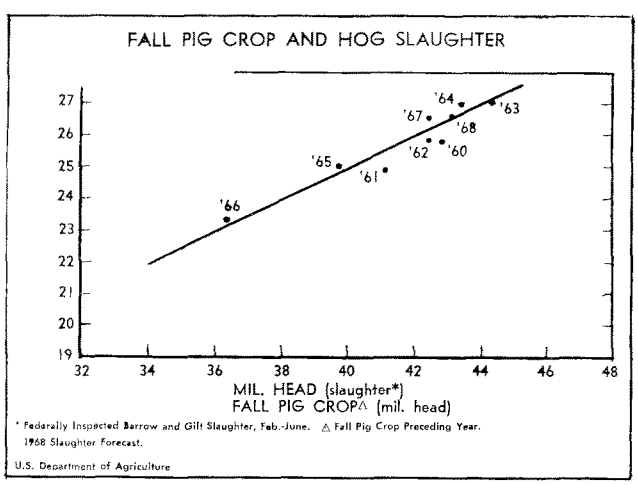

FIG. 1.

Slaughter vs. Price

It has generally been assumed that a small change in hog supply will result in a large change in price in the opposite direction. This can be demonstrated on an annual basis as we have done in Fig. 2. An annual reduction in slaughter of 1% to 2% from the previous year causes an 8% to 10% increase in price, and a slaughter reduction of 11% caused a price increase of 39%. Conversely, increased slaughter is correlated with decreased price, but not in quite the same proportions.

Hog-Corn Ratio

Another relationship which we find to be seasonally reliable is the influence of the hog-corn ratio of one year to the pig crop of the next. The hog-corn ratio equates the number of bushels of corn that can be bought with the price of 100 pounds of hogs. It must be noted that this has nothing to do with the price level of either hogs or corn, but only the relationship of the two. It may generally be stated that if the ratio is high it is more profitable to feed corn to hogs than it is to sell cash corn, whereas if the ratio is low it is less profitable to feed hogs.

Farmers respond to this ratio by adjusting hog production practices. This is demonstrated in Fig. 3 in which we show the percentage change in hog-corn ratio from one year to the next versus the percentage change in pig crop for the following year. For example, the 1963 hog-corn ratio of 12.7 was an 18% reduction from the

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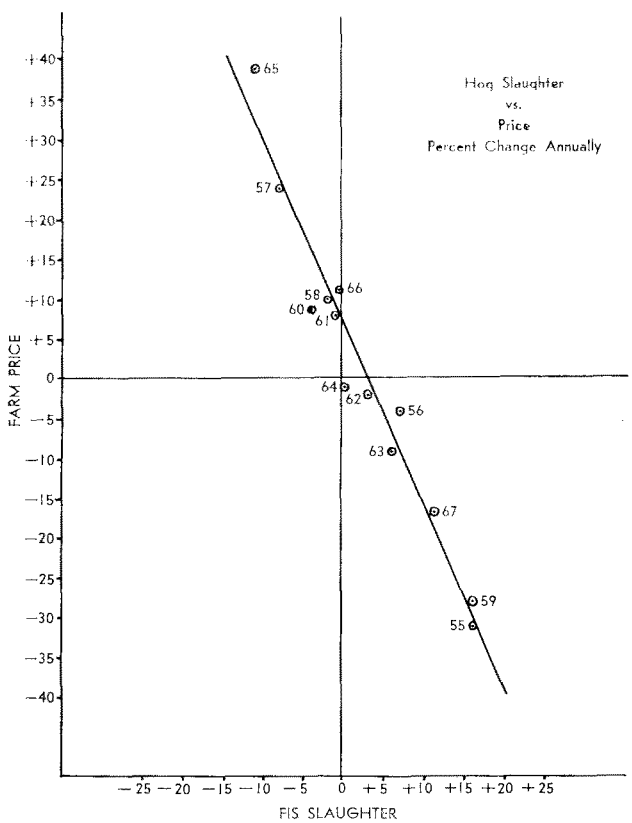
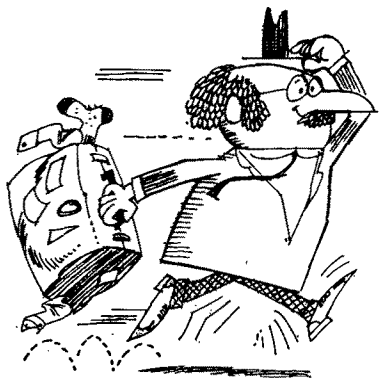


FIG. 2.



Meetings

AOCS National Meetings

1968—New York, Statler Hilton Hotel, Oct. 20–23.

1969—San Francisco, San Francisco Hilton, April 20–24. Minneapolis, Leamington Hotel, Oct. 5–8.

April 26–30, 1970—New Orleans, Jung Hotel.

Sept. 27–Oct. 1, 1970—Chicago, Conrad Hilton Hotel.

AOCS Section Meetings

* Nov. 19, 1968—Northeast Section, Franklin Motor Inn, Philadelphia, Pa.

* Nov. 20, 1968—North Central Section, Swedish Club, Chicago; Jan. 15, 1969, Swedish Club, Chicago; March 19, 1969, Swedish Club, Chicago.

Other Organizations

* Oct. 7–9, 1968—International Gel Permeation Chromatography Seminar, Miami Beach, Fla.

Oct. 8–10, 1968—ASLE/ASME Lubrication Conference, Chalfonte-Haddon Hall, Atlantic City, N.J.

Oct. 14–17, 1968—82nd Annual Meeting of the Association of Analytical Chemists, Marriott Motor Hotel, Twin Bridges, Washington, D. C.

Oct. 15–16, 1968—83rd Annual Meeting of Industrial Hygiene Foundation, Chatham Center, Pittsburgh, Pa.

* Oct. 20–24, 1968—American Association for Information Science, Columbus, Ohio.

Oct. 23–25, 1968—46th Annual Meeting and 33rd Paint Industries' Show of the Federation of Societies for Paint Technology, New York Coliseum, New York City.

Oct. 25–30, 1968—35th Annual Convention of the National Renders Association, Queen Elizabeth Hotel, Montreal, Canada.

Oct. 23–26, 1968—46th Annual Meeting of the Federation of Societies for Paint Technology, The Coliseum, New York.

Oct. 24, 1968— USDA Utilization Lab in Wyndmoor, Pa., to hold Open House from 2 to 4:30 and from 7:30 to 10 p.m.

* Nov. 10–15, 1968—Crop Science Society of America, New Orleans, La.

* Nov. 18–23, 1968—International Seed Testing Association, Palmerston, New Zealand.

* Nov. 18–19, 1968—American Society for Testing and Materials, Committee D-12 on Soaps and Detergents Annual Meeting, Barbizon Plaza Hotel, New York City.

Dec. 3, 1968—Award Meeting and Medal Award Dinner Dance, Americana Hotel, New York, N.Y.

* Dec. 9–13, 1968—A five-day Short Course in Statistics for Engineers and Scientists by the Catholic University of America, Washington, D.C.

* Additions to previous calendar

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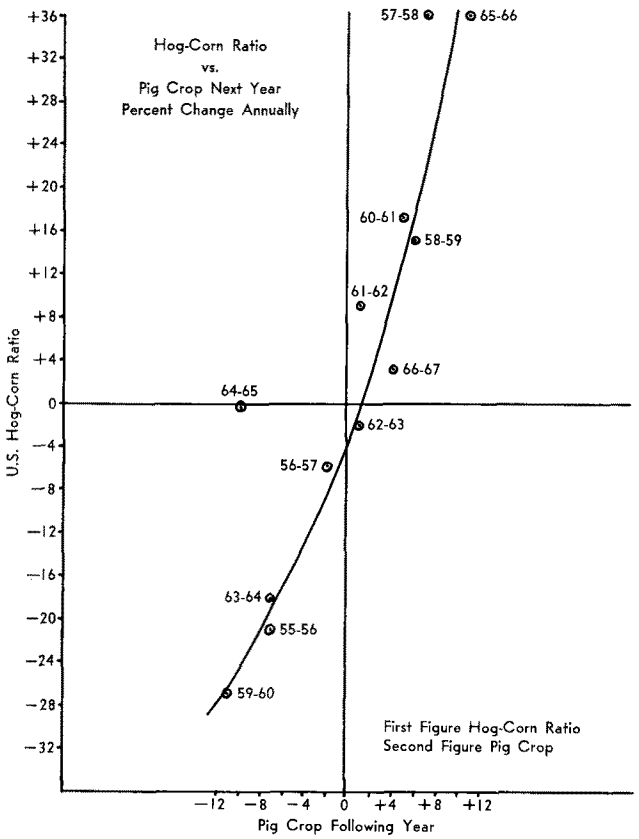

FIG. 3.

ratio in 1962 of 15.4. This resulted in a 1964 pig crop 7% smaller than in 1963.

It should be noted that there was a valid reason for digression from normal correlation in 1964–65 relationships. The 1964 hog-corn ratio was 12.7 which was unchanged from 1963. But the 1965 pig crop decreased 10% from 1964, when a more normal correlation would have indicated a pig crop unchanged to 2% larger. The answer is found in the price of corn. Since the fall of 1959 the monthly average price had fluctuated between 87¢ to $1.09. Then in the summer of 1963 it broke out of this range, bringing between $1.10 to $1.24 average in nearly every month for the next two years. This sudden increase in corn prices influenced enough farmers to pocket the profit while they could and not risk losing it by feeding hogs for a later market at a price not yet determined. This action raised the price of hogs significantly in 1965 so that the hog-corn ratio advanced 36%, the pig crop in 1966 advanced 11%, and the previously established correlation was restored.

Forecast for 1968

The 1967 hog-corn ratio was 13% below 1966. This would indicate the 1968 pig production should be from 3% to 5% lower than 1967. Current USDA projections, however, place it at "approximately unchanged." There is a distinct possibility that the government projection will be realized, whereby this year would be another digression from normal. Cash corn prices have dropped sharply which will undoubtedly influence some farmers to expand their farrowing operations this fall. The hog-corn ratio has been running higher than last year at 18 to 20 for a considerable time. This also should favor an expansion in farrowing.

DAVID M. BARTHOLOMEW,
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