

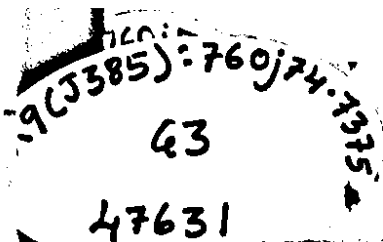
Annual Fluctuations in the Price of Corn

BY GEOFFREY SHEPHERD

AGRICULTURAL EXPERIMENT STATION
IOWA STATE COLLEGE OF AGRICULTURE
AND MECHANIC ARTS

R. M. HUGHES, Acting Director

AGRICULTURAL ECONOMICS SECTION



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SUMMARY

UNITED STATES DEC. 1 AVERAGE FARM VALUE OF CORN

The United States average farm value of corn per bushel Dec. 1 before the World War was determined almost entirely by the size of the United States corn crop. The closeness of the relation is indicated by the simple correlation coefficient $-.9738$. The regression of corn value on corn production was -1.62 . Since the war, this regression has decreased to -1.54 .

Since the war, the farm value of corn has become sensitive to other influences besides the size of the corn crop. Three other factors now seem to influence the value of corn—the numbers of livestock on farms, the rate of industrial production, and perhaps the west-east corn production ratio. The period since the war is so short, however, that these conclusions must be regarded as tentative.

IOWA DEC. 1 AVERAGE FARM VALUE OF CORN

The Iowa average farm value of corn Dec. 1 before the war, like the United States farm value, was determined almost entirely by the size of the United States corn crop; but the correlation coefficient was slightly lower ($-.9678$).

The regression of Iowa corn value on United States corn production was -2.34 . Iowa farm values thus fluctuated proportionally more than United States values did. Since the war, the regression has decreased slightly, from -2.34 to -1.99 .

CHICAGO DECEMBER VALUE OF NO. 3 YELLOW CORN

Before the World War, fluctuations in the December value of corn were largely explained by the action of three factors—the size of the corn crop, the quality of the crop and the number of livestock on farms.

Since the war, the Chicago December value of corn has become responsive to one or two additional factors; these are (a) industrial production and perhaps (b) the west-east corn production ratio.

The regression of Chicago corn value on United States corn production before the war was -1.64 . Since the war, it has increased to -2.22 . The post-war period is too short to say whether changes have taken place in the regression of the two other variables, corn quality and livestock numbers.

The drastic decline in the general price level in 1920 shifted the short-time trend of Chicago corn values downward. The decline in the price level that started in 1929 appears to be shifting the trend downward again. The new trend will probably be considerably higher than corn values at the present

time, but lower than the trend from 1922 to 1929, unless the general price level rises substantially.

Corn prices are determined by two groups of forces, (a) those which recur annually, like changes in the size of the corn crop, and (b) those which happen but once and may not occur again. Correlation studies such as the present one deal only with the first group of forces or factors. They may lead the investigator astray if they are taken as a complete explanation of corn price movements. They provide only a partial explanation. But by measuring the effect of the one group of factors, they clear the way for a more accurate evaluation of the effect of the other group.