

ECONOMIC BASES FOR PRESENT AND FUTURE PRODUCTION OF SOYBEANS IN ILLINOIS

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ABSTRACT

The farmer's decision on soybean acreage focuses upon two economic considerations—relative profitableness, and the place of the crop in the farming system. During recent years improvement in varieties, cultural practices and harvesting methods have markedly increased yields, and the building up of a marketing organization has put the crop on a commercial basis.

The acreage of soybeans grown in Illinois has increased from 1,000 in 1914 to a peak of 771,000 in 1933. While some soybeans are now grown in all parts of the State, approximately 85 per cent of the acreage is located in a belt running east and west across the State, 175 miles in width from north to south. In the northern three-fifths of this belt, the part lying north of the Shelbyville Moraine, the acreage devoted to seed or grain production exceeds that used for hay, while the reverse situation is true in that part of the belt lying south of this line. Economically, the method of utilization is significant, since it marks the difference between use on the farm where grown and disposal through commercial outlets. As a grain crop, soybeans compete with other grain crops; as hay, with other hay crops. Relative profitableness of soybeans with other grain crops is shown by comparing the amounts of income above operating costs and taxes for various periods (Table 1).

TABLE 1

*Average Incomes per Acre Above Operating Costs and Taxes for Various Crops and Designated Periods
Champaign and Piatt Counties¹*

	10-year average 1923-1932	5-year average 1928-1932	3-year average 1930-1932	1-year 1933
Corn.....	\$11.27	\$7.95	\$2.10	\$-3.00
Winter wheat.....	9.52	6.75 ²	2.25	3.45
Soybeans (threshed).....	6.83	5.49	.18	.71
Soybeans (combined).....	9.03	2.70	4.85
Soybeans (hay).....	5.70	2.97	-1.72
Oats.....	4.43	2.33	1.26	.15

¹ Unpublished data and annual mimeographed reports. Department of Agricultural Economics, University of Illinois.

² Four-year average, 1929-1932. No records for 1928 due to winter killing.

³ Incomes based on average market values for month of harvest.

Under recent price relationships, soybeans have an evident advantage which, however, is less obvious in the longer periods during which more normal price relationships prevailed. These figures also show one reason for the shift from binder and thresher to the combine in harvesting soybeans.

During short periods when economic conditions force every possible economy it is likely that the difference between direct cash outlay and cash returns becomes the immediate criterion for crop adjustments. Cash outlays

in growing corn, wheat, oats, and soybeans differ but little, hence the tendency is to favor the crop with the largest cash income. For the three-year period 1930-1932, cash incomes in Champaign-Piatt counties were corn, \$14.18; wheat, \$12.72; soybeans—threshed, \$12.58, combined \$13.37; and oats, \$7.93. From the standpoint of profitableness, soybeans are bidding strongly for second place among grain crops.

In the farm organization, soybeans are widely adaptable. Their place as a direct income-producing crop has been shown; as an emergency crop they may replace winter-killed wheat as grain, or clover failure as hay. As a hay crop the operating costs are relatively high, yet with good yields, ton costs are not excessive. The present tendency to use home grown feeds and to defer liming programs favors expansion of hay production to meet farm needs. Commercial outlets for soybean hay have been but little developed.

Even in the heaviest producing areas of Illinois the ratio of soybean acreage to other crops suggests the possibility of much further expansion through replacement of lower profit crops. The much wider extension of the present commercial areas not only in Illinois but in other important producing areas indicates the possibilities of increasing the supply if prices warrant.

As yet, the demand is predominantly on the farms where grown. For the entire country, of the 1929 and 1930 crops, 56 per cent was cut for hay, 15 per cent grazed, and 29 per cent harvested for beans. Development of feed uses depends largely upon numbers of animals and feeding methods. Harvested beans have several outlets—crushing, seed, feed, export, and human food. While all of these may be expected to provide for expansion, the greatest possibilities doubtless lie in the broad and varied field of industrial utilization. The economic problem of determining the extent to which the potential physical production will be carried is that of developing commercial uses in sufficient variety and volume and an adequate marketing mechanism in order to return to the grower remunerative prices for the beans produced for market.