

# Popcorn Production in Indiana<sup>1</sup>

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## *Abstract*

Commercial popcorn production, important only since 1890, though showing much fluctuation, has increased greatly since the early 1940's. National harvested totals in the last decade have averaged approximately 180,000 acres and 416 million pounds. The crop's value has been as high as 15.4 million dollars. Most production is in the Corn Belt with Indiana the leader in most recent years. Production by various counties has been quite variable but the chief areas has recently been in northeastern Indiana and particularly Huntington County. Optimum physical conditions and methods of cultivation are similar to those for field corn but more care is necessary in harvesting and storage. The chief reasons for the importance of popcorn production in Indiana are the government feed grains allotment program and the location here of established buyers and processors. The state should continue as one of the major United States producers.

Popcorn was probably grown by the Indians of both North and South America. It has been important commercially, however, only since about 1890. Production, though showing a great deal of fluctuation from year to year, has increased greatly since the early 1940's (1). This coincided approximately with the development of popcorn hybrids, but growing demand would probably have caused an increase anyhow. In the last decade the national harvested area has varied from about 109,000 to over 240,000 acres with an average of approximately 180,000 acres. Pounds produced have varied from 272 million to 518 million, averaging about 416 million (Table 1), and value of the harvest has ranged from about 6.2 million to 15.4 million dollars (2) and (3).

As shown on Table 1, the commercial crop is chiefly produced in the Corn Belt states of Ohio, Indiana, Illinois, Iowa, Missouri, and Nebraska, although the bordering states of Michigan and Kentucky produce significant enough amounts to be listed in the annual reports of the Department of Agriculture. Minor amounts are at times reported from states as far apart as Maryland, Texas, and Idaho. Indiana or Iowa is usually the leading state with Illinois third (2). The exact ranking of states is sometimes questionable, as statistics from the two major sources, the *Census of Agriculture* and *Agricultural Statistics* do not always agree. Based on measurements of the last ten years by the latter source, Indiana is the leader in both harvested acreage and in total pounds produced.

Within Indiana the leading producing counties are scattered widely over the state. Huntington County has been the leading producer in the two most recent agricultural census years. Other leading counties include Kosciusko, LaPorte, Vermillion, Harrison, Wells, and Noble (Table 2). As has been true nationally, there has been considerable fluctuation of

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production from county to county within the state. At various census periods LaGrange, Parke, Tippecanoe, and Vigo Counties have ranked high (4). In the post-war period the most stable areas of important production have been in northeastern Indiana in Huntington, Wells, Noble, and Kosciusko Counties. Even here, however, stability is only relative and there have been significant changes from year to year in both acreage and production.

Here the question arises as to why Indiana is a leading popcorn producer and why popcorn production is of major importance in certain counties and not in others.

The usual methods of commercial popcorn growing are very similar to those used for field corn (1). Physical conditions of climate and soil which encourage the growth of one also encourage the other. Some growers claim that a somewhat slower ripening period is better for popcorn. This would favor the more northern Corn Belt areas. This surely is only a minor factor. It has not significantly discouraged growers in such areas as southern Indiana and Kentucky.

Methods of planting and cultivation are nearly identical and fertilization varies only slightly. There are major differences, however, in harvesting and curing the crop. While a mechanical corn picker can be easily adapted to harvest popcorn, this crop is always harvested as ear corn. Most field corn is both picked and shelled in the field. Further, damage to the standing crop by wind, rain, or hail may have a more serious effect on the harvesting of popcorn than on that of field corn. Popcorn is more susceptible to picking damage than field corn since cracked or broken kernels are useless for popping.

Storage and curing practices are also much more important in the production of popcorn. Since popcorn is grown for human consumption, standards are higher than for field corn and rodent or insect damage may make the crop completely unacceptable to the processor. In this case the farmer can only use his popcorn for animal feed, a use for which field corn is far more suitable.

Moisture content is also of paramount importance. The crop should, if possible, be completely mature before the first killing frost, and slow natural drying in the field or crib is recommended. Artificial drying, however, is common but must be done carefully. Too rapid loss of moisture may reduce popping expansion resulting in a lower price or loss of market.

Such differences in harvesting or curing, however, are not the major factors involved in the decision of whether or not to grow popcorn. The greatest differences in field corn and popcorn production and the most important determinants in the farmer's choice of crops are governmental and/or economic.

The government feed grains program is of major importance. Under this program the acreage allotted to a farm for the growing of corn, wheat, sorghums, and other feed grains has been calculated on the



TABLE 2. *Leading Popcorn Producing Counties in Indiana*

County	1959			1964		
	Farms	Acreage	Pounds	Farms	Acreage	Pounds
Huntington	61	2,209	4,740,488	72	4,647	14,011,735
Kosciusko	79	2,231	4,597,038	48	1,794	4,055,405
Harrison	57	1,247	2,342,130	101	2,303	3,918,463
Vermillion	19	1,363	3,091,770	19	2,356	3,819,000
LaPorte	3	368	896,300	15	1,660	3,125,019
Wells	42	816	1,895,615	35	1,503	3,062,328
Noble	76	2,263	3,630,417	39	1,339	2,276,120
Gibson	29	1,443	2,094,428	33	1,097	2,247,440
Dubois	22	86	154,160	47	1,050	2,177,385
Montgomery	12	541	1,312,512	8	741	2,111,100
LaGrange	117	2,725	4,477,356	50	1,605	2,050,352
Parke	36	1,856	3,244,255	24	1,060	1,958,390
Elkhart	98	1,964	3,223,212	28	917	1,593,111
Washington	30	182	214,159	41	840	1,486,259
Fulton	25	308	878,025	10	562	1,307,430
INDIANA	1,608	29,594	57,141,497	902	32,676	67,382,065

basis of the acreage planted in these crops in the 1958-1959 base year. This has affected popcorn production in two ways. In some parts of Indiana farmers were at that time already growing popcorn fairly extensively. Their acreage allotment for feed grains was thus somewhat low when compared to their total farm acreage. The farmer thus is encouraged to continue to use his unallotted land for popcorn or, for the only other real cash crop choice, soybeans. This has tended to cause permanent popcorn production by the same farmers over a longer period of time.

Acreage allotments have also, since they restrict the planting of feed grains, left surplus land available for crops not covered by the federal programs and have encouraged some farmers who had not grown popcorn previously to enter into this type of agriculture. Again, as mentioned above, the only real cash crop choice is soybeans. The crop planted will depend upon the farmer's opinion as to which will be the more profitable. In the case of popcorn he will have a more exact idea of his profit since in most cases, a definite price has been promised him and the only variables are yield and quality. Also, he may get a bonus if quality is especially good.

Although all the above factors no doubt affect the farmer's decision and play a part in the concentration of popcorn production in certain areas, the most important determinant is the location of an established processor. The processor has the necessary equipment for drying, shelling, storage, and packaging; has wholesale and retail markets available; has transportation facilities; and keeps a close eye on national demand and holdover supplies. Based on this knowledge he makes his acreage contracts for the year. He makes a firm promise as the price per pound harvested, granted acceptable quality, and for all practical purposes, determines the annual acreage planted. Very few farmers, unless they are also processors, are prepared to make the investment in time and money required and to take a chance on the future market.

No one can be definite as to the future trends in popcorn production generally. Factors involved include the general economic prosperity of the country, competition from the myriads of other "snack foods" now on the market or to be developed in the future, and possible expansion of foreign markets. Even now popcorn is being exported to Japan and to western Europe in small amounts. Future growth of these markets depends on successful educational and promotional campaigns. There may also be some other possible markets as yet untapped in relatively prosperous areas of the world, but the vast, underdeveloped regions offer little encouragement.

Indiana will probably continue as a major producer. The present markets built up by Indiana processors and lower shipping costs to the populous eastern states should insure our state a continued important share of total national production.

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