

HARVESTING OF CORN, SMALL GRAINS, AND RELATED CROPS: DATA ON PRACTICES

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U. S. DEPARTMENT OF AGRICULTURE ECONOMIC RESEARCH SERVICE STATISTICAL REPORTING SERVICE



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SUMMARY

Harvesting of corn, small grains, soybeans, and sorghums by combines continues to increase. Combining of small grains in the United States increased from about 84 percent of the total production in 1950 to 97 percent in 1960. During the same period, combining from windrow increased from 22 to 27 percent of the total; but the largest gain was in harvesting by combine from standing stalk, from about 62 percent of the small grains harvested in 1950 to 70 percent in 1960 (table 1).

Harvesting small grains with combines from windrow is most important in the northern section of the United States. It increased considerably from 1950 to 1960 in the Northern Plains and the Lake States. In most other States, however, combining from windrow has dropped or is a very small part of the total harvesting operation.

Cornpicking attachments on grain combines are being used increasingly in the major corn-producing areas. In 1956, only 3 percent of the corn harvested was field shelled, but this increased to about 15 percent by 1960. Field shelling was highest on farms with a large acreage of corn. A similar relationship was found for harvesting by mechanical picker, except that the importance of mechanical picking dropped slightly in all areas on farms with over 300 acres of corn harvested.

Field shelling of corn will continue to increase. Domestic shipments of cornpicking attachments for combines, and cornpicker shellers numbered under 5,000 units in 1956, but shipments have risen and averaged between 9,000 and 10,000 units annually since 1956. Shipments of field-shelling units probably will continue at about this rate in the next few years, leading to an increase of corn harvesting by combines and other field-shelling machines before replacements are needed in any quantity.

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HARVESTING OF CORN, SMALL GRAINS, AND RELATED CROPS: DATA ON PRACTICES

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BACKGROUND

This report is based on information from voluntary crop reporters of the U.S. Department of Agriculture. Over 30,400 usable reports were obtained from a mailed questionnaire sent out in February 1961, covering the year 1960.

For small grains and related crops, respondents reported separately for self-propelled and pull-type combines the total acres combined from standing crop and from windrow. Threshing of small grains has become such a small percentage of the total that it and grain that was cut ripe and fed unthreshed were left as a residual. This residual was tabulated as "threshed and all other." Custom work also was reported for small grains.

Acreage of corn harvested for grain was reported showing the number of acres harvested by mechanical pickers, field picker-shellers, and by hand. Acreage of field-shelled corn harvested by custom operator was also reported.

These data were expanded to State and national estimates based on size-of-farm groupings by States using the 1959 Census of Agriculture's number of farms.

Results of earlier studies of harvesting corn and small grains were reviewed and compared. These were Department of Agriculture bulletins ARS 43-91, "Harvesting the 1956 Corn Crop;" and FM-91, "Harvesting Small Grains and Soybeans and Methods of Saving Straw;" also "Harvesting Selected Field Crops, 1959 and Comparisons (working data Oct. 1961). The sample survey conducted by the Bureau of the Census, U.S. Department of Commerce, 1960, provided additional information on custom work.

Data for manhours of labor used per acre and per unit of production were obtained from Statistical Bulletin No. 144, "Labor Used for Field Crops," June 1954, and estimates compiled by the Labor Unit of the Farm Production Economics Division of the Economic Research Service.

In this report, "United States" is used to mean the 48 contiguous States.

HARVESTING CORN

Acreage of corn harvested for grain has declined gradually since 1930 with a general increase in production per acre. For example, the acreage of corn harvested for grain was slightly less in 1960 than in 1950, but total production in 1960 was over 40 percent higher.

The production of corn has tended to concentrate in certain areas of the United States. In 1938, about 50 percent of the U.S. corn acreage was in the Corn Belt, Lake States, and Northern Plains. In 1960, the percentage in these areas increased to nearly 80 percent of the U.S. total. Acreage of corn grown for grain remained relatively stable in the Northeast during this period and declined for the rest of the Nation except the Pacific area (table 2).

A larger percentage of the corn crop was harvested by field picker-shellers in 1960 than in 1956 (table 3). Corn harvested by mechanical picker dropped slightly in 1960, and the percentage of corn harvested by hand dropped to half of the 1956 level.

Field shelling increased from 3 percent of the corn crop in 1956 to 15 percent in 1960 (table 3). Grain combines equipped with cornpicker attachments accounted for most of this increase.

Custom shelling accounted for about one-third of the field shelling of corn in 1960. Most of this was done on small corn acreages. On farms with large corn acreages, the percentage field shelled by custom operator was down (table 4). On farms with under 10 acres of corn, 80 percent of the field shelling was done by custom operators (table 5). Slightly over 20 percent of the crop on farms with 100 or more acres of corn was shelled by custom operators.

As expected, areas having the largest number of farms with small corn acreage had more of the field shelling done by custom operators than others. Nearly 50 percent of the field shelling in the Appalachian area was done by custom operators compared with only about 25 percent in the Northern Plains region.

HARVESTING WHEAT

Next to corn, wheat is the largest grain crop in terms of acres in the United States. Production in 1960 was over 1.3 billion bushels, compared with slightly over 1 billion bushels harvested in 1950 on 16 percent greater acreage. Higher yielding, smut- and lodge-resistant varieties, as well as better cropping practices, have helped increase production.

Slightly more wheat was combined from standing crop (allowed to mature on the stalk) in 1960 than in 1950 (table 6). The proportion of grain combined from windrow was the same in both periods, and increased slightly in the Lake States and Northern Plains from 1950 to 1960, while declining in the rest of the Nation. Nearly one-fourth of the wheat acreage in 1960 was harvested by custom operators (table 7). For many grain farmers, custom work accounts for about half of the total time spent harvesting wheat and other small grains.

Combining from standing crop with self-propelled combine is more important on the larger farms. Self-propelled combines harvested 87 percent of the acreage on farms with 300 or more acres of wheat in 1960 compared with 21 percent of the acreage on farms with under 10 acres of wheatland (table 8).

Combining from windrow increased with size of farm on those with under 200 acres of wheatland, then dropped on farms growing 300 acres of wheat or more (table 8). Approximately 29 percent of the wheat in the Northern Plains was combined from windrow, and 36 percent in the Lake States.

Windrowing is considered necessary by some farmers in the northern States because of the short growing season and the increased possibility of inclement weather if the farmer waits to harvest the grain from standing crop. Another reason advanced in these areas in favor of windrowing is the fact that the grain is left to "sweat" or "condition" in the row for about a week, supposedly to produce a better quality grain than when harvested from standing crop.

The general decrease in wheat acreage from 1950 to 1960 did not apply to the Southern States. Acreage harvested in the South was 18 percent higher in 1960 than in 1950, and over 95 percent of the wheat was combined from standing crop in 1960.

HARVESTING OATS

Oats are produced in practically every State in the Union, with the total U.S. harvested acreage in recent years varying from 20 to 40 million acres. Over 80 percent of the production is concentrated in the Corn Belt, Lake States, and Northern Plains (table 9). Spring oats are grown mainly in this area where they often serve as a nurse crop for grasses and legumes. Red oats, or fall oats are produced principally in the Southeast.

The acreage of oats harvested has been erratic over the years--principally because in some areas it is a supplemental crop. If wheat or corn allotments are restricted or a crop failure is imminent, oats are one of the crops that can be harvested to salvage some production.

More than 90 percent of the oats harvested in 1960 were combined as standing crop or from windrow. In 1938, 90 percent of the crop was harvested by other methods. In 1945, about two-thirds of the oat crop was threshed from shock or stack or cut ripe and fed unthreshed, and in 1950 about one-third of the crop was thus harvested. By 1960, only 6 percent of the U.S. acreage was threshed. Threshing was as high as 14 percent in the Appalachian area with a low of 2 percent in the Delta States (table 10).

HARVESTING BARLEY

Barley is grown mainly in the Northern and Southern Plains, Minnesota, Montana, Idaho, Colorado, and the Pacific area. Over 87 percent of the U.S. barley acreage was produced in about a dozen States in 1960 compared with less than 82 percent of the total in 1950 (table 12). Because of a short growing season, barley can be grown as a nurse or companion crop to alfalfa and clover. Barley matures in a relatively short time and it is adaptable for northern latitudes where frost-free seasons are relatively short (60-70 days), but does better when seasons are over 90 days.

Combining of barley was well on its way by 1950 when approximately 86 percent of the crop was harvested in this manner; 52 percent of this was from standing crop and 34 percent from windrow (table 12). The rest was threshed or cut ripe and fed unthreshed. By 1960, 98 percent of the crop was combined, while combining from windrow increased only slightly. Practically all of the increase in combining was in harvesting grain from standing crop and nearly two-thirds of the total U.S. barley acreage in 1960 was harvested by this method. Over two-thirds of the barley acreage was harvested (either as standing crop or from windrow) by self-propelled combines.

Most of the barley in a reas of northern United States where the growing season is short (about 75 percent in the Northern Plains and over 80 percent in the Lake States) was combined from windrow in 1960. Two of the top 12 producing States, Minnesota and North Dakota, had more than 90 percent of the barley harvested in this fashion.

Combining barley from standing crop was higher than windrowing in all of the acreage groups. However, over 40 percent of the barley was combined from windrow on farms of 50 acres and over (table 14).

HARVESTING RYE

Rye is among the least important of the small-grain crops. Acreage harvested has varied between 1.4 and 2 million acres since World War II. It is a supplemental crop in many areas and is generally grown on the poorer, less productive soils.

Acreage of rye harvested in the United States declined from about 1.7 million acres in 1950 to 1.5 million in 1960, a decrease of over 10 percent. Most of this decrease was in the Lake States, some was in the Northern and Southern Plains (tables 15 and 16). Acreage increased in the Corn Belt and in the rest of the ryegrowing areas of the country.

In 1960, as in 1950, over half the rye acreage harvested was in the Northern Plains. Nearly two-thirds of the U.S. rye in 1960 was combined as standing crop. On farms with under 20 acres of rye, more than 80 percent was harvested in this manner (table 17). Combining from windrow increased with size of crop acreage; 4 percent of the crop on farms with less than 5 acres being harvested in this fashion and about 40 percent on farms with 50 or more acres of rye.

HARVESTING GRAIN SORGHUMS

From 1950 to 1960, the U.S. grain-sorghum acreage increased 50 percent (table 18). Due to improved varieties producing higher yields, grain production increased even faster during this period than did acreage, or from 233.5 million bushels in 1950 to 620 million bushels of grain sorghum in 1960.

All regions growing sorghum for grain increased production from 1950 to 1960 (table 18). Over 4 million, or 80 percent, of the 5-million increase in harvested acreage in this period was in the Northern Plains area. In 1960, over 6 million acres of sorghum for grain were harvested in the Northern Plains, nearly three times the 1950 acreage harvested. The Southern Plains area is still the country's leading grain-sorghum producer, with over 7.5 million acres harvested in 1960. This, however, was only 5 percent above the 1950 acreage.

The U.S. grain-sorghum crop was nearly all harvested by combine in 1960 as well as in 1950, threshing being 2 percent of the total in both periods (tables 18, 19, and 20). More than three-fourths of the crop was harvested by self-propelled combine as standing crop in 1960 (table 18). Some acreage was combined from windrow in the Plains States; it was insignificant in the rest of the United States. Slightly over 2 percent of the total crop was combined from windrow and nearly all of this by self-propelled combine.

About two-thirds of the grain sorghum on farms producing 5 acres or less, was harvested as standing crop by pull-type combines (table 19). As sorghum acreage increased, the proportion harvested as standing crop by self-propelled combines also increased; and nearly nine-tenths of the crop on farms producing 100 or more acres of grain sorghums was harvested in this manner.

HARVESTING SOYBEANS

Soybean acreage and production have increased almost steadily since 1924 when the first acreages were officially recorded. From 1924 to 1930, soybean acreage more than doubled, from 450 thousand to over 1 million acres, and production nearly tripled from 5 million to 14 million bushels. Acreage tripled from 1930 to 1940, nearly doubled from 1940 to 1950, and was 70 percent higher in 1960 than in 1950, with nearly 23 million acres harvested for soybeans in 1960 (table 21). Beginning in 1961, soybean acreage has surpassed oat acreage. Only wheat and corn are grown more extensively.

Soybeans expanded into a mechanized agriculture using the methods already at hand for combine harvesting. Varietal adaption was the biggest problem and as new varieties were introduced and appeared to fit the local area, planted acreage was expanded. Acreage increases would not have been so rapid without the establishment of oil-crushing plants nearby. (A similar limitation exists with castorbean production today.) Acreage restrictions on corn production have also given an impetus to increased soybean planting.

Since 1950, nearly all the soybean acreage in the United States has been harvested by combine. Threshing amounted to 1 percent of the total acreage in 1950 and less than 0.5 percent in 1960. The proportion of the crop harvested standing and from windrow has remained about the same for both periods (table 21). Combining is about equally split between self-propelled and pull-type units, 51 percent of the harvesting done by pull-type and 49 percent with trailing-type combines.

Combining from windrow was most important in the Lake States with about one-quarter of the soybean crop harvested by this method in 1960 and in 1950 (table 21).

Harvesting with pull-type combines is done on two-thirds to three-quarters of all farms with less than 10 acres of soybeans except in the Northeast and Delta States (table 22). Combining soybeans with self-propelled combines is most important on the larger farms. Self-propelled combines were used extensively on farms with 100 or more acres of beans harvested in the Northern Plains, Applachian, Southeast, and Delta States.

HARVESTING PEANUTS

Peanuts occupy a small part of the U.S crop acreage. In some States, however, they are an important crop. In 1960, about 60 percent of the total acreage harvested was located in Georgia and Texas. Alabama, North Carolina, and Oklahoma accounted for another third of the acreage harvested.

Peanut acreage has declined gradually since World War II, while yields per acre have increased. In the 1941-45 period, an average of 3 million acres were harvested annually. This was the peak period in peanut production, and poorer lands were brought into production during this time. 1/ Average yields were low, slightly over 650 pounds per acre.

Slightly less than 1.5 million acres of peanuts were harvested annually in the 1956-60 period, a drop of over 50 percent from the peak in World War II days. Much of the production on poorer land was discontinued after the war and the remaining acreage was fertilized more heavily; irrigation was added in many areas to increase production.

There was a near reversal of combining and threshing of peanuts from 1950 to 1960. In 1950, approximately 80 percent of the peanut crop was threshed and 20 percent combined. At the end of the decade, threshing had dropped to 35 percent of the total acreage harvested, and the rest of the crop was combined (table 24). About 94 percent of the combining was done by pull-type machines in 1960.

Over 20 percent of the U.S. peanut crop was combined by custom operators in 1960. Nearly one-half of the crop in North Carolina and Texas was harvested by custom operators. There was no record of custom combining in Alabama and New Mexico, although presumably some custom work was done in both States.

HARVESTING FLAXSEED

Production of flaxseed has varied over the years depending on demand. The demand varies with the degree of the substitution of other products for linseed oil (which is extracted from flaxseed) in the paint industry and with the amount of competition with flaxseed from cattle feed byproducts, such as soybean and cottonseedmeal concentrates.

Flaxseed acreage harvested dropped noticeably in 1960, compared with the past decade. The average acreage harvested annually in the 1950-59 period amounted to slightly over 4.3 million acres. In 1960, harvested acreage was 23 percent below this average. Flaxseed acreage dropped in all major producing States except Texas, which in 1960 had one and one-half times the 1950-59 average acreage harvested.

Most of the flaxseed produced is combined from windrow. In 1950, over 90 percent of the flaxseed was combined, 70 percent of that was from windrow. Windrowing

^{1/} Hansen, P.L., and Mighell, R. L. Oil Crops in American Farming. U.S. Dept. Agr. Tech. Bul. 940, Nov. 1947.

increased and by 1960, 85 percent of this crop was combined in this manner, with a consequent decline in combining from standing stalk and in threshing (table 25).

In the major flax-growing areas, combining from windrow is quite prevalent with other grain crops. The extension of this harvesting procedure to flaxseed production is therefore the most economical method of utilizing the existing equipment. On the other hand, the short growing period affects flaxseed in the same manner as it does other grains, and windrowing is probably the most convenient method of harvesting in face of adverse weather conditions.

HARVESTING DRY BEANS AND FIELD PEAS

Michigan, California, Colorado, and New York are the leading States in bean production, accounting for about 85 percent of the bean acreage harvested in 1960. Over 85 percent of the dry field peas were grown in Idaho and Washington, and most of the rest were in Minnesota, North Dakota, Colorado, and Oregon.

Michigan had most of its bean production (over 85 percent) combined as standing crop, and the rest threshed, Washington followed with slightly more than 70 percent combined as standing crop (table 26). Combining from windrow was more important in Idaho, Colorado, and California where about two-thirds of the crop was harvested by this method.

HARVESTING ALFALFA, CLOVER, AND GRASS SEED

Harvested alfalfa- and clover-seed acreages have been declining gradually since World War II. Most of the production of legume seed and grass seed is on small plots and represents a part of a larger farm cropping system.

Nearly all of the legume- and grass-seed crops are combine harvested. Over 85 percent of the grass seed, and about two-thirds of the alfalfa and clover are harvested as standing crop (tables 27 and 28). Combining from windrow is most important in the Northern Plains and Pacific regions. Approximately 50 percent of the alfalfa and clover seed were harvested from windrow in these areas in 1960 (table 27). About one-fourth of the grass seed in the Northern Plains in 1960 was harvested from windrow (table 28).

CUSTOM HARVESTING

Over 20 percent of small grains, sorghums, and soybeans as a group in the United States was combined by custom operators in 1960 (tables 1, 18, and 21). Custom operators harvested nearly 40 percent of the sorghums, about 25 percent of the wheat, and smaller percentages of the other small grains and related crops in 1960.

Custom harvesting of small grains was highest in the Southern Plains (Texas and Oklahoma), with about 50 percent of the crop combined (table 1). Wheat and sorghums totaled more than 85 percent of the crop acreage harvested in this area.

Hired combining of most of the small grains in the United States varies inversely with the crop acreage. About one-third of the acreage on farms with 10 acres or less of wheat, oats, barley, and soybeans was harvested by custom operators in 1960 (tables 8, 11, 14, and 23). As size of crop acreage increased, custom harvesting generally decreased, reaching a level of about 10 percent of the acreage harvested on the larger farms.

Sorghums grown for grain in the United States are the exception to the general trend in using custom operators for harvest operations; here, custom work becomes more extensive as larger acreages are harvested. For example, over 40 percent of the grain sorghum was custom combined on farms with 100 or more acres of sorghum harvested, compared with about 20 percent on farms with under 5 acres harvested.

Any U.S. trend or relationship in the harvesting of grain sorghums is heavily influenced by the methods used in the Southern Plains. In 1960, over half the Nation's grain sorghum was produced in Texas and Oklahoma and nearly 60 percent of this crop was harvested by custom operators. Here custom work increased as size of farm increased. However, the general trend in other areas was in the opposite direction; custom work decreased in most grain-sorghum regions as size of farm increased.

Custom harvesting was less important in combining flaxseed than in alfalfa and clover seed. Custom operators combined 16 percent of the legume seed crops with a high of 25 percent of the acreage in the Pacific area and a low of about 9 percent of the acreage in the Northern Plains (table 27). About 11 percent of the total U.S. flaxseed crop was custom harvested and the only States showing a sizeable amount of custom harvesting (approximately 36 percent of the acreage) were Texas, Montana, and Iowa (table 25).

LABOR REQUIREMENTS

Labor requirements for harvesting grain crops have dropped faster in the past two decades than in previous periods. However, there are differences among crops, depending on the degree of mechanization used.

In adjusting to rising labor costs, the farmer has expanded the mechanization of corn-harvesting procedures over the past 30 years. Introduction of 1-row and 2-row mechanical cornpickers in the periods 1910 and 1930, respectively, reduced considerably the labor necessary to harvest and store an acre of corn. The use of the self-propelled cornpicker-shellers and cornpicker attachments on combines affected a further reduction in labor in the middle 1950's. In this process, a considerable part of the harvesting machinery is not used to capacity. To utilize machines more fully and thereby reduce fixed costs per unit of output, many operators either do custom work or acquire and plant additional acreage.

Among the grain crops, the change over a period of time in the harvesting labor required for corn merits special attention. The U.S. corn yield in 1960-63 was over 62 bushels per acre or 2 1/2 times the yield in the 1935-39 period. During this period, man-hours of labor for corn harvesting declined 75 percent from about 10 hours per acre to 2.5 hours (fig.1). Further decreases in harvesting labor per acre are indicated but the trend is tapering off and will decline much slower in the future.

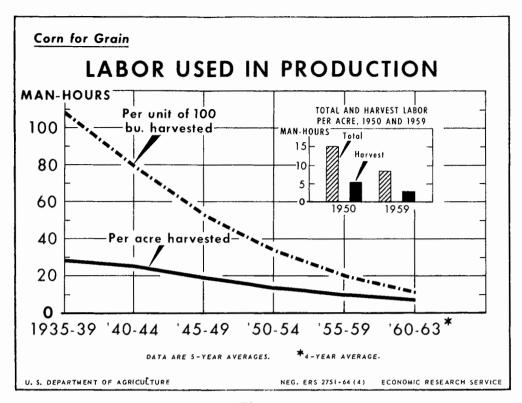


Figure 1

In 1950, from 1 1/2 to 2 1/2 man-hours of labor were required to harvest an acre of small grains, soybeans, or sorghums (figs. 2-6). By 1959, labor used for harvesting these crops had dropped to about 1 to 1 1/2 man-hours per acre.

On the higher side, an average of nearly 4 man-hours were used to harvest an acre of oats in 1950, and this dropped to about 2 man-hours in 1959 (fig. 3). A large percentage of the oat crop is produced on small acreages and a large portion of this is produced in northern and central United States. Operators with smaller plots use less mechanization in their harvesting processes, and windrowing is more extensive in regions such as the Lake States. These factors are primarily responsible for the more gradual decrease in harvesting labor requirements for oats compared with other small-grain crops.

About one-quarter of the acreage of small grains, soybeans, and sorghums was harvested by custom operator in 1960, and the largest percentage of this by farmers doing part-time work. Since custom work is a prominent part of the harvesting operations for all grain crops, it has definitely reduced the labor used for harvesting.

Mechanized harvesting technology has decreased labor requirements more rapidly than has preharvest technology for most of the small grains and related crops.

For example, in 1950 over 6 man-hours per acre were used in the production of an acre of oats and about two-thirds of this labor was used in harvesting (fig. 3). By 1959, less than 4 hours were used to produce an acre of oats and about 2 hours or 50 percent of the labor was used for harvesting. Nearly all this labor reduction was due to an improvement in harvesting operations. Similar examples are shown for the other grain crops (figs. 4-6).

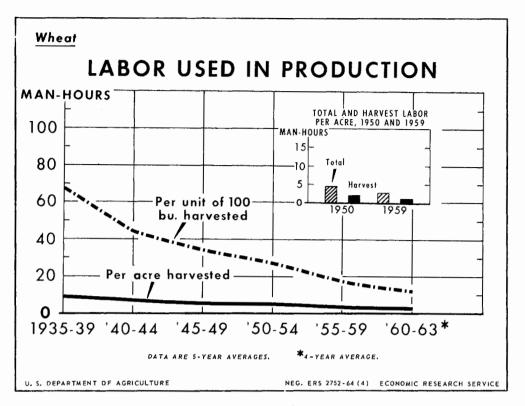


Figure 2

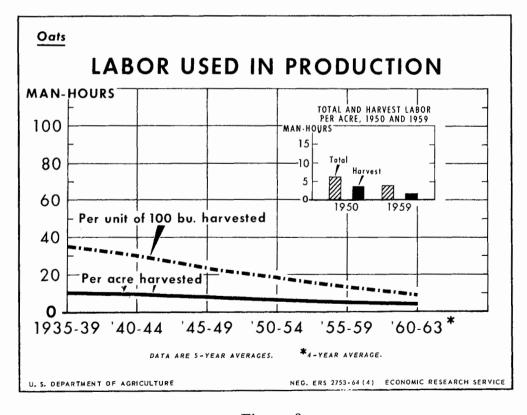


Figure 3

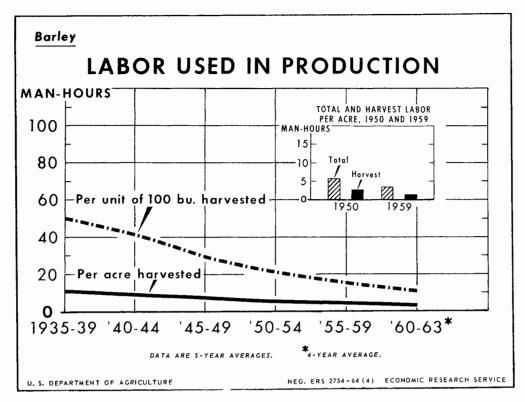


Figure 4

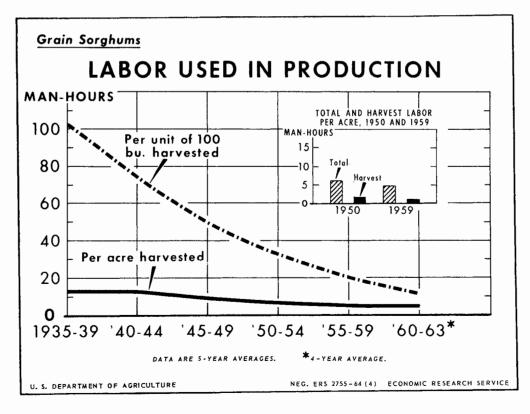


Figure 5

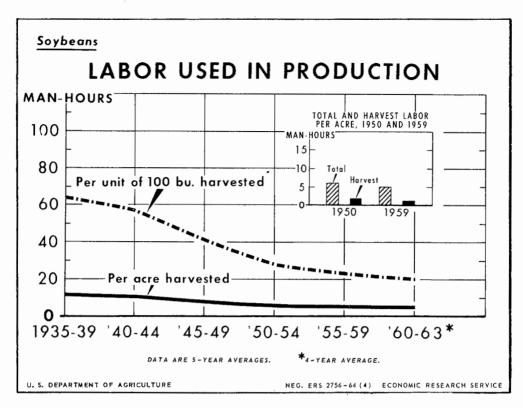


Figure 6

Harvesting of sorghums and soybeans presents a slightly different picture than that of small grains. About 95 percent of each crop in 1960 was harvested by combines as standing grain. No small-grain crop was harvested as standing grain to this extent. Relative reductions in the labor used in the production of soybeans and sorghums in the 1950-59 period were due principally to increasing the efficiency of labor. This was due to improvements in harvesting processes which included the use of larger and more self-propelled combines (fig. 5). During this same period, however, reduction in labor for harvesting soybeans and sorghums was much smaller than it was for most of the small grains. This was mainly because a larger proportion of sorghums and soybeans were combine harvested in 1950 than in previous years.

For the production of soybeans, for example, approximately 6 man-hours of labor per acre were used in 1950, of which 25 percent were used in harvesting. Man-hours per acre dropped to about 4.5 in 1959. The decline in hours was split equally between harvest and preharvest labor; but, proportionately, the percentage drop was much greater for harvest compared with preharvest labor (fig. 6).

Labor required to harvest an acre of peanuts in the United States dropped from 20 hours to about 7.5 hours, or over 60 percent, from 1950 to 1959. Total labor used in the harvesting of peanuts in Texas and Oklahoma was 25 to 50 percent higher for irrigated acreages compared with labor used for dryland peanuts in the same area. This additional labor is used in preharvest operations, mostly for setting up and moving irrigation systems.

UNITED STATES DEPARTMENT OF AGRICULTURE Economic Research Service Farm Production Economics Division

ERRATA

Harvesting of Corn, Small Grains, and Related Crops: Data on Practices, Statistical Bulletin No. 354, December 1964

Pages 46 and 47, table 22, stub column

Change all "100 to 199 acres" to "100 acres and over"

Page 48, table 23, stub column

Change "100 to 199 acres" to "100 acres and over"

Page 52, table 27, last column

Opposite Pacific change 29 to 25

Opposite United States change 17 to 16

Peanut-harvesting labor varied considerably throughout the producing States, depending on yields and degree of mechanization. The U.S. average for 1959 was 0.7 man-hour per 100 pounds of peanuts harvested. Only 0.2 man-hour was required to harvest 100 pounds of peanuts in New Mexico in 1959 (average yield 1,800 pounds per acre), compared with over 1 hour in North Carolina (average yield 1,500 pounds per acre). Nearly 95 percent of the peanuts were combined in New Mexico, compared with North Carolina where about 50 percent were threshed.

Approximately 18 hours were required to produce and harvest an acre of dry field beans in 1950, and 15 hours in 1959 or a reduction of over 15 percent. Practically all of the decrease in labor came from improvements in harvesting operations. Labor used to harvest beans during this period dropped about 40 percent, from 6 to 3.6 man-hours per acre. Preharvest labor did not decrease noticeably, mainly due to the expansion of, and extra labor used for, irrigation.

Labor used to produce and harvest an acre of dry field peas was reduced similarly, although the drop per acre in harvesting labor used for peas was much greater from 1950-59 than that used for beans. Pea-harvesting labor dropped over 50 percent in this period from 2.5 hours to 1.1 hours per acre.

Table 1.--Small grain crops: Acreage harvested and percentage of the acreage harvested by specified methods, by State and region, 1950 and $1960 \ \underline{1}/$

	: :	: :	Perce	entage of ac	reage, 19	60		Percenta	age of act	reage, 1950
State and region	1960 acreage	:	Combined-	-	:	Threshed	: Combined	: Combin	ned	: : Threshed
	harvested	From standin	g crop by	From Wind:	ow by	and all	by custom	: : As :		_:from stocl : or stack
	: :	: Self- : propelled	: Pull- : type :	Self-: propelled:		other		standing:	From windrow	and other
	1,000 acres	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
New England	: 62	6	81			13		52	1	47
New York	891	29	64			7	36	70	1	29
New Jersey	: 94	36	62			2	28	91		9
Pennsylvania		28	64			8	32	69	1	30
Delaware	. 55	42	54			4	31	90	1	9
Maryland	: 313	45	51			4	33	68		32
Northeast	2,786	30	63			7	33	70	1	29
Michigan	1,883	29	66			5	17	75	4	21
Wisconsin	: 2,318	25	58	2	6	9	16	73 31	10	59
Minnesota		6	6	30	51	7	13	5	61	34
Lake States	10,546	14	28	19	32	7	14	24	39	37
Ohio	2 520	27	70			<u> </u>	10	22	•	10
Indiana	2,530	27 37	70			3	10	89	1	10
Illinois	2,144	= :	61			2	17	90	3	7
Iowa		40	58			2	14	77	16	7
Missouri		11	37	4	44	4	14	37	37	26
Corn Belt	•	44	48	1	2	5	22	68	2	30
COIN BEILLILL	14,510	30	53	1	13	3	15	67	17	16
North Dakota	14,128	11	4	50	34	1	8	17	70	13
South Dakota		17	6	30	44	3	18	19	57	24
Nebraska	4,624	61	21	6	11	1	22	72	8	20
Kansas		84	13	2		1	22	97	1	2
Northern Plains	36,770	42	9	2 6	22	1	16	51	36	13
Virginia	479	31	60			9	25	54		46
West Virginia	: 64	22	48			30	25	31		69
North Carolina	: 644	31	58			11	27	77	1	22
Kentucky		28	64			8	18	58	ī	41
Tennessee		26	65			9	29	62	î	37
Appalachian		30	60			10	25	62	1	37
South Carolina	391	40	54			6	13	66	2	32
Georgia		33	55			12	14	71		29
Florida		50	50				7	47		53
Alabama		29	65			6	11	64	1	35
· · · · · · · · · · · · · · · · · · ·	816	36						U- 1		

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Table 1.—Small grain crops: Acreage harvested and percentage of the acreage harvested by specified methods, by State and region, 1950 and $\frac{1}{2}$ —Continued

	:	:	Perce	entage of ac	reage, 19	960		Percent	age of ac	reage, 1950
State and region	: 1960 : acreage		Combined-	-		Threshed	: Combined	: Combined		: Threshed
Ü	harvested	: From standing	g crop by	From windr	ow by	and all	by custom			_: from stock : or stack
	: : :	Self- propelled	Pull- type	Self- : propelled:		other	operator	standing:	From windrow	: and other
	: : 1,000 acres	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Mississippi	: 197	61	37			2	16	83	3	14
Arkansas		39	59			2	13	63	1	36
Louisiana	: 72	53	46			1	4	64	2	34
Delta States	: 418	52	46			2	13	72	2	26
Oklahoma	5.776	82	12	1		5	36	95	1	4
Texas	: 5.070	83	16	1			47	86	5	9
Southern Plains	: 10,846	82	14	1		3	45	91	3	6
Montana	5,980	80	13	6		1	15	85	7	8
Idaho	: 1,827	80	15	3	1	1	12	92	2	6
Wyoming	: 429	67	20	7	5	1	27	83	3	14
Colorado	: 3,223	83	10	5	1	1	37	91	2	7
New Mexico	: 312	76	24				30	91	2	7
Arizona	: 181	78	22				60	95		5
Utah	: 403	70	25	2		3	34	87		13
Nevada	: 28	54	46				39	92		8
Mountain	: 12,383	79	14	5	1	1	23	88	4	8
Washington	2,841	77	19	2		2	6	95	1	4
Oregon		72	26	1		1	11	92	4	4
California	2,088	80	17	1	2		27	97	1	2
Pacific		77	20	1	1	1	14	95	2	3
United States	97,212	48	22	13	14	3	20	62	22	16

^{1/} Includes wheat, oats, rye, barley, and flaxseed.

State and region	: :		Acreage 1	narvested			: : P	ercentage	harveste	d with co	rnpicker	
_	: : 1938 :	: 1943	: 1946	1951	: : 1956 :		1938	1943	•			1960
	: : 1,000 : acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	Percent	Percent	Percent	Percent	Percent	Percent
New England	: 38	28	2 5	20	8	6		3	13	65	68	78
New York	: 198	131	153	172	231	211	1	13	25	75	79	80
New Jersey	: 144	127	125	135	142	108	2	12	20	70	77	81
Pennsylvania	: 1,080	1,024	1,055	1,053	1,002	923	3	10	29	75	81	87
Delaware	: 139	130	134	151	144	151	1/	4	22	70	78	84
Maryland	: 463	413	412	406	437	425	ī/	5	20	70	80	78
Northeast	: 2,062	1,853	1,904	1,937	1,964	1,824	2	9	26	73	80	83
Ohio	: 3,350	3,186	3,405	3,334	3,415	3,383	12	34	55	87	90	87
Indiana		4,114	4,398	4,396	4,592	5,152	22	54	65	93	96	83
Illinois		8,023	8,553	8,684	8,477	9,985	43	65	75	93	96	80
Iowa	•	10,127	10,600	9,907	9,413	12,166	35	63	76	95	98	89
Missouri	•	4,172	4,239	3,689	3,749	4,041	2	7	18	60	78	69
Corn Belt		29,622	31,195	30,010	29,646	34,727	28	51	64	89	94	83
Michigan	1,240	1,043	1,243	1,365	1,671	1,683	5	23	37	80	88	84
Wisconsin	,	1,302	1,299	1,278	1,714	1,736	5	21	37	80	88	89
Minnesota	: 3,360	4,102	4,323	4,410	5,035	5,845	35	65	76	95	93	84
Lake States	: 5,764	6,447	6,865	7,053	8,420	9,264	22	49	61	89	91	85
Virginia	1,287	1,225	1,017	886	734	627	1/	1	10	44	48	51
West Virginia	: 412	347	284	202	151	98	1/ 1/ 1/	1/	2	20	39	47
North Carolina	: 2,388	2,252	2,104	2,107	1,866	1,750	ī/	-1	4	15	40	39
Kentucky	: 2,484	2,457	2,194	2,104	1,782	1,529	_2	1	8	41	57	67
Tennessee	: 2,628	2,508	2,106	1,899	1,630	1,354		1	3	16	24	44
Appalachian	9,199	8,789	7,705	7,198	6,163	5,358		1	6	27	42	50
South Carolina	: 1,818	1,553	1,415	1,263	878	708	1/	1/	2	6	21	24
Georgia	•	3,511	2,886	2,554	2,164	2,043	$\frac{1}{1}$	$\frac{1}{1}$	1	7	36	46
Florida	•	595	[*] 526	379	364	307		$\overline{1}/$	2	4	51	53
Alabama		3,128	2,531	2,247	2,074	1,705		$\frac{1}{1}$	1	7	31	42
Southeast		8,787	7,358	6,443	5,480	4,763	1/	<u>1</u> /	1	7	33	42
Mississippi	3,162	2,626	2,173	1,694	1,506	1,054	1/	1/	1	10	20	23
Arkansas	· · · · · · · · · · · · · · · · · · ·	1,670	1,435	955	646	305		$\frac{1}{1}$	1	11	18	29
Louisiana	•	1,242	975	677	570	338	1/	1/	1	4	15	23
Delta States	7,063	5,538	4,583	3,326	2,722	1,697	1/	1/	1	9	18	24

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Table 2.--Corn for grain: Acreage harvested and percentage harvested with cornpickers, by State and region, specified years--Con.

			Acreage	harvested			: Percentage harvested with cornpicker					
State and region	1938	: : 1943 :	: : 1946 :	: : 1951	1956	: : 1960	: 1938 :	1943	1946	1951	1956	1960
	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	Percent	Percent	Percent	Percent	Percent	Percent
Oklahoma	1,652	1,573	1,317	946	273	206		2	6	33	37	44
Texas	4,725	4,572	3,019	2,176	1,593	1,251		1	6	27	50	53
Southern Plains:	6,377	6,145	4,336	3,122	1,866	1,457		1	6	29	48	52
North Dakota	307	419	437	405	465	319	5	61	72	91	94	79
South Dakota:	2,231	2,799	3,529	2,880	3,178	3,426	18	44	72	95	94	83
Nebraska:	6,613	7,499	7,418	6,726	4,037	6,538	4	21	45	90	93	79
Kansas	1.944	2,987	2,469	2,187	901	1,725	1	12	24	73	78	68
Northern Plains		13,704	13,853	12,198	8,581	12,008	6	25	49	88	92	79
Colorado	777	676	372	370	204		4	12	28	70	76	
Other:	367	275	188	120	108		1	7	12	22	45	
Mountain		951	560	490	312	3 36	3	10	23	58	65	52
Pacific States	92	70	51	49	179	215		13	3 0	60	28	35
United States	82,788	81,906	78,410	71,826	65,333	71,649	12	27	41	68	78	75

^{1/} Less than 0.5 percent.

	: :	: :	Percentage	harvested,	1960		: :	Percen	tage harves	ted, 1956
State and region	: 1960 : acreage	From st	anding stalk	by	: : : : :	By field shelling	1956 acreage		standing lk by	:
0	harvested	: Mechanical	Picker-	-sheller	: hand :	done by	: harvested	Mechan-		: By hand : and other
	:	: picker	: Grain : combine	Other	other:	custom operator	:	ical	Picker- sheller	: and other
	: 1,000 acres	Percent	Percent	Percent	Percent	Percent	1,000 acres	Percent	Percent	Percent
New England	-: 6	78			22		8	68		32
New York	-: 211	80	6	4	10	44	231	79	8	13
New Jersey	-: 108	81	5	3	11	45	142	77	5	18
Pennsylvania	-: 923	87	3	2	8	30	1,002	81	3	16
Delaware	-: 151	82	7	5	6	37	144	78	10	12
Maryland	-: 425	78	8	5	9	35	437	80	5	15
Northeast	-: 1,824	83	5	3	9	34	1,964	80	5	15
Michigan	-: 1,683	84	5	4	7	30	1,671	88	3	9
Wisconsin	-: 1,736	89	3	3	5	13	1,714	88	2	10
Minnesota	-: 5,845	84	7	6	3	38	5,035	93	4	3
Lake States	-: 9,264	85	Ó	5	4	32	8,420	91	3	б
Ohio	-: 3.383	87	5	3	5	44	3.415	90	3	7
Indiana	-: 5,152	83	10	5	2	28	4.592	96	1	3
Illinois	-: 9,985	80	12	6	2	29	8,477	96	2	2
Iowa	-: 12,166	89	6	4	1	27	9,413	98	1	1
Missouri	-: 4.041	69	19	5	7	38	3,749	78	3	19
Corn Belt	-: 34,727	83	10	5	2	31	29,646	94	2	4
North Dakota	-: 319	79	11	5	5	30	465	94	3	3
South Dakota	-	83	ó	8	3	21	3.178	94	4	2
Nebraska		79	12	6	3	26	4,037	93	i	6
Kansas	, , , , ,	óS	22	5	5	40	901	78	5	17
Northern Plains		79	12	6	3	27	8,581	92	2	6
Virginia	-: 627	51	9	2	38	33	734	48	2	50
West Virginia	•	47	1	2	50	40	151	39	1	60
North Carolina	-	39	17	4	40	55	1,866	40	5	55
Kentucky	,	67	9	ż	22	46	1,782	57	1	42
Tennessee	•	44	7	4	45	52	1,630	24	1	75
Appalachian		50	11	3	36	49	6,163	42	2	56
South Carolina	708	24	19	4	53	32	878	21	2	77
Georgia		4ó	16	4	34	31	2.164	36	3	61
Florida	•	53	12	6	29	33	364	51	2	47
Alabama		42	8	3	47	38	2.074	31	2	67
Southeast		42	13	4	41	35	5,480	33	2	65

Table 3.--Corn for grain: Methods of harvesting, by State and region, 1956 and 1960--Continued

:		:	Percentag	e harvested	, 1960		: :	Percen	tage harves	sted, 1956
State and region	1960 acreage	From s	tanding stal	k by	: By :	By field shelling	1956 acreage	•	standing k by	:
: :	harvested	: Mechanical : Picker-sheller : picker : Grain : Other : combine :		: hand : _: and : : other :	done by		Mechan- ical	Picker-	: By hand : and other	
:		<u>:</u>	: combine	_:	<u> </u>		<u>:</u>	picker	<u>:</u>	<u>:</u>
: :	1,000 acres	Percent	Percent	Percent	Percent	Percent	1,000 acres	Percent	Percent	Percent
Mississippi:	1.054	23	8	4	65	34	1,506	20	3	77
Arkansas:	305	29	11	3	57	38	646	18	5	77
Louisiana:	338	23	11	5	61	31	570	15	2	83
Delta States:	1,697	24	9	4	63	34	2,722	19	3	78
Oklahoma:	206	44	17	3	3 6	36	273	37	2	61
Texas:	1,251	5 <u>3</u>	14	3	30	51	1,593	50	4	46
Southern Plains:	1,457	52	14	3	31	49	1,866	48	4	48
Colorado:	251	54	30	3	13	28	204	76	3	21
All other:	85	57	21	4	18	38	108	45	22	33
Mountain:	336	55	28	3	14	32	312	65	10	25
Pacific:	215	35	44	14	7	26	179	27	63	10
United States:	71,649	75	10	5	10	32	65,333	78	3	19

Table 4.--Corn for grain: Percentage of acreage harvested by specified methods, by crop acreage and region, 1960

	Percentage of acreage harvested										
Coop agrees and maring	From sta	anding stalk	by	: By	By field						
Crop acreage and region	: Mechanical	Picker-	sheller	: hand	shelling done by						
	: picker :	Grain combine	Other	: other	custom operator						
	: Percent	Percent	Percent	Percent	Percent						
Under 10 acres	: : 72	2		26	7 2						
10 to 24 acres	: 87	2	1	10	67						
25 to 49 acres	: 89	3	1	7	48						
50 to 99 acres	: 88	5	2	5	32						
100 to 199 acres	: 88	6	3	3	25						
200 to 299 acres	: 81	11	6	2	12						
300 acres and over	: 76	15	8	1	9						
Northeast	And the second s	5	3	9	34						
Under 10 acres	: 83	1		16	80						
10 to 24 acres	: 85	1	1	13	72						
25 to 49 acres	=	2	1	9	65						
50 to 99 acres		3	2	2	52						
100 to 199 acres		5	3	1	44						
200 to 299 acres		7	6	1	35						
300 acres and over		10	11	1	25						
Lake States		6	5	4	32						
Under 10 acres	: 63	2		35	89						
10 to 24 acres		4	1	16	82						
25 to 49 acres		6	2	7	69						
50 to 99 acres		6	2	3	61						
100 to 199 acres		7	3	2	52						
200 to 299 acres		9	4	1	44						
300 acres and over		14	7	*	21						
Corn Belt		10		2	31						
COIN Delt	: 03	10	<i></i>		31						
Under 10 acres	: 57	4		3 9	87						
10 to 24 acres	: 66	6	1	27	78						
25 to 49 acres	: 73	8	2	17	71						
50 to 99 acres	: 79	10	3	8	58						
100 to 199 acres	: 84	10	3	3	43						
200 to 299 acres	: 8 3	11	5	1	28						
300 acres and over	: 77	16	7	1/	21						
Northern Plains		12	6	3	27						
Under 10 acres	30	3		67	82						
		6	2	46	73						
10 to 24 acres				34							
25 to 49 acres		8	3 3		66						
50 to 99 acres		12	_	24	61						
100 to 199 acres		16	4	13	54						
200 to 299 acres		23	6	9	31						
300 acres and over		31	8	5	24						
Appalachian	: 50	11	3	36	49						

Table 4.--Corn for grain: Percentage of acreage harvested by specified methods, by crop acreage and region, 1960--Continued

	Percentage of acreage harvested										
Crop ocrops and region	From star	nding stalk	by	: By	By field shelling						
Crop acreage and region	: Mechanical	Picker-s	h eller	: hand :	done by custom						
	: picker :	: Grain : combine	Other	: other :	operator						
	: Percent	Percent	Percent	Percent	Percent						
Under 10 acres	: 15	4		81	77						
10 to 24 acres	: 17	5	2	76	70						
25 to 49 acres	: 30	6	3	61	55						
50 to 99 acres		9	3	44	48						
100 to 199 acres	: 54	15	5	2 6	40						
200 to 299 acres		20	7	14	29						
300 acres and over	: 58	2 7	8	7	20						
Southeast	: 42	14	3	41	35						
Under 10 acres		1	1	87	71						
10 to 24 acres	: 16	3	2	79	63						
25 to 49 acres	: 25	6	3	66	47						
50 to 99 acres	: 32	12	5	51	37						
100 to 199 acres	: 35	16	8	41	32						
200 to 299 acres	: 39	20	9	32	24						
300 acres and over	: 41	31	12	16	17						
Delta States	: 24	9	4	63	34						
Under 10 acres	21	4		75	92						
10 to 24 acres		5	2	52	84						
25 to 49 acres		6	2	43	75						
50 to 99 acres	: 59	9	3	29	67						
100 to 199 acres	: 63	1 6	3	18	60						
200 to 299 acres	: 71	20	4	5	52						
300 acres and over	55	36	6	3	25						
Southern Plains	52	14	3	31	49						
Under 10 acres		12	3	47	66						
10 to 24 acres		15	7	26	59						
25 to 49 acres	: 58	2 0	7	15	53						
50 to 99 acres		25	6	8	43						
100 to 199 acres		29	4	6	33						
200 to 299 acres		3 7	5	2	23						
300 acres and over		50	7	1/	23						
Mountain and Pacific	47	35	7	11	28						
United States	75	10	5	10	32						

^{1/} Less than 0.5 percent.

Table 5.--Corn for grain: Custom work; percentage field shelled with hired machines, by corn acreage and region, 1960

	Percentage harvested on farms with corn acreage of												
Region	Under 10 acres	10-19	20-29	: : 30-49	: : 50-74	75 - 99	100 and over	A11 farms					
:	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent					
Northeast	82	67	48	32	25	11	8	34					
Lake States	85	81	66	60	48	38	27	32					
Corn Belt	89	82	69	61	52	44	19	31					
Northern Plains	84	80	77	69	51	33	22	27					
Appalachian	80	72	66	61	54	31	20	49					
Southeast	83	69	56	48	39	30	20	35					
Delta States	69	58	48	37	32	24	17	34					
Southern Plains	88	80	77	67	60	52	25	49					
Mountain	85	71	63	39	20	15	8	32					
Pacific	50	48	42	40	37	35	35	26					
United States	80	72	65	59	49	39	21	32					

Table 6.--Wheat: Acreage harvested and percentage of the acreage harvested by specified methods, by State and region, 1950 and 1960

	: :	: :	Pe	rcentage of	acreage, 1	960		: :	Percenta	ge of acr	eage, 1950
	: 1960	:	Combin			:	:	: : : 1950	: Combine	ed	: Threshed
State and region	acreage	:	ng crop by	From win	drow by	Threshed and all	Combined	acreage			or cut
	harvested:	:	: : Pull- : type :	: Self- : :propelled:	Pul1-	other:	by custom operator		As standing grain	From	ripe and fed un- threshed
	1,000 acres	Percent	Percent	Percent	Percent	Percent	Percent	1,000 acres	Percent	Percent	Percent
New England	:										
New York	: 246	41	58			1	32	406	88	2	10
New Jersey	: 45	40	59			1	25	78	95		5
Pennsylvania	: 535	33	61			6	29	863	73	1	26
Delaware	: 25	44	53			3	30	60	89	1	10
Maryland	:149	47	50			3	34	_279	66		34
Northeast	: 1,000	38	58			4	33	1,686	77	1	32
Michigan	: 1.068	30	65			5	17	1,141	84	2	14
Wisconsin		26	58	2	6	8	18	88	41	14	45
Minnesota		12	5	35.	44	4	11	927	2	75	23
Lake States	: 2,065	22	37	16	20	5	14	2,156	47	34	19
Ohio	: 1,428	29	68			3	5	2,118	90		10
Indiana	: 1,229	39	59			2	16	1,533	93	2	5
Illinois	,	48	51			1	16	1,417	96	1	3
Iowa	: 119	47	46	5	2		19	250	82	9	9
Missouri	: 1,321	48	47	1	1	. 3	24	1,359	84	1	15
Corn Belt	: 5,674	41	56	1/	1/	3	15	6,677	91	1	8
North Dakota	: 6,440	18	5	43	33	1	10	8,942	22	68	10
South Dakota		34	8	30	28		29	3,359	34	56	10
Nebraska	•	75	21	2	1	1	28	4,051	95	1	4
Kansas	: 10,329	86	12	1		1	23	12,280	49		1
Northern Plains	22,152	59	11	16	13	1	21	28,632	67	28	5
Virginia	: 256	28	62			10	25	376	57		43
West Virginia	: 27	20	57			23	30	66	35		65
North Carolina		32	58			10	32	356	87	1	12
Kentucky		29	66			5	20	248	ć5	î	34
Tennessee		31	61			8	34	244	64		36
Appalachian		30	61			9	28	1,290	67	1/	33

Table 6.--Wheat: Acreage harvested and percentage of the acreage harvested by specified methods, by State and region, 1950 and 1960 ---Continued

	:	:	Per	centage of	acreage, 1	960		: :	Percenta	ge of acr	eage, 1950
	: : 1960	:	Combin	ed		:	:	: : 1950	: Combine	:d	: : Threshed
State and region	acreage	From standing	ng crop by	From win	drow by	Threshed	Combined	acreage	:		or cut
	harvested	•	Pull- type	: Self- : :propelled:	Pu11-	and all other	by custom operator		As: standing: grain:		ripe and fed un- threshed
	: : 1,000 : acres	Percent	Percent	Percent	Percent	Percent	Percent	1,000 acres	Percent	Percent	Percent
South Carolina		34	61			5	17	136	89	2	9
Georgia		37	56			7	25	109	93		7
Florida											
Alabama		41	59				12	11	89	3	8
Southeast	258 	36	59			5	19	256	91	1	8
Mississippi	: : 37	51	45			4	16	8	95		5
Arkansas	: 133	40	58			2	15	18	58	40	2
Louisiana	:32	56	43			1	10				
Delta States	: 202	45	53			2	14	26	69	28	3
0k1a homa	: 4,665	87	11	1	1/	1	42	4,707	100		
Texas	·:3,5 <u>83</u>	90	10				54	2,374	94	4	2
Southern Plains	·: 8,248 :	89	11	1/	1/	1/	47	7,081	98	1	1
Montana	: : 3,953	81	13	5		1	18	4,953	91	6	3
Idaho	-,	86	12	1	1		10	1,342	95	ĭ	4
Wy oming	,	83	15	2			30	348	95		5
Colorado		91	9				41	2,314	98	1	1
New Mexico	,	79	21				31	172	97	ī	2
Arizona		72	28				20	25	99	1	
Utah	230	72	27			1	26	408	94	6	
Ne va da	:14	59	40			1	15	17	99	1	
Mountain	8,296	84	13	3	1/	1/	25	9,579	94	3	3
Washington	: 1,949	80	18	1		1	5	2,621	99		1
Oregon		74	25	1			9	952	98	1	1
California		68	31	1			22	651	99	1	
Pacific		77	22	1	<u>1</u> /	1/	8	4,224	99	1/	1
United States	: 51,896	64	19	8	7	2	24	61,607	79	15	6

^{1/} Less than 0.5 percent.

Table 7.--Wheat: Percentage of acreage harvested by specified methods, by crop acreage and region, 1960

**************************************	:	· · · · · · · · · · · · · · · · · · ·	Percentage o	f acreage	·	
	:	Combined		:	m1 1 1	
Crop acreage and region	From stand	ing crop by	From wind	row by	Threshed and all	Combined by custom
	: Self-	: Pull-		: Pull- :	other	operator
	: propelled:	: type	: propelled	: суре :		·
	: Percent	Percent	Percent	Percent	Percent	Percent
Under 10 acres		66			9	42
10 to 24 acres		62 50			4 3	33
25 to 49 acres 50 to 99 acres		36			2	23 20
100 acres and over		33				3
Northeast		58			4	33
	:					
Under 10 acres		56	1	23	11	34
10 to 24 acres		45	8	22	7	20
25 to 49 acres		39	16	18	3	9
50 to 99 acres		23 8	27 42	18 17		6
100 to 199 acres 200 acres and over		0	42 60	17		
Lake States		37	16	20	5	14
	: 					
Under 10 acres		71			9	30
10 to 24 acres		63			6	21
25 to 49 acres		58 41			1	15
50 to 99 acres 100 acres and over		41 15				7 6
Corn Belt		56	1/	1/	3	15
	` 			- '		
Under 10 acres	: 26	51	5	13	5	30
10 to 24 acres		39	6	16	3	26
25 to 49 acres		29	11	18	2	26
50 to 99 acres		17	16	21	1	22
100 to 199 acres		9	19	17		19
200 to 299 acres 300 acres and over	-	5 3	20 14	10 4		18 19
Northern Plains		11	16	13	1	21
Under 10 acres		66			15	45
10 to 24 acres		63			9	31
25 to 49 acres		58			5	14
50 to 99 acres		46			2	4
100 to 199 acres		38 35				
200 to 299 acres 300 acres and over		30_				
Appalachian		61			9	28
	:					
Under 10 acres		73			11	36
10 to 24 acres		62			5	17
25 to 49 acres		55			2	8
50 to 99 acres		44				9
100 to 199 acres		31				
200 acres and over Southeast		25 59			5	19
oou theast	:					

Table 7.--Wheat: Percentage of acreage harvested by specified methods, by crop acreage and region, 1960--Continued

: :		I	Percentage o	f acreage		
		Combined-		:	(D)	Combined
Crop acreage and region :	From standi	ng crop by	From win	drow by	Threshed and all other	Combined by custom
:	Self- propelled	: Pull- : type	Self- propelled	: Pull- : type :	other	operator
: :	Percent	Percent	Percent	Percent	Percent	Percent
Under 10 acres:	23	72			5	17
10 to 24 acres:	37	59			4	17
25 to 49 acres:	51	48			1	14
50 to 99 acres:	59	41				14
100 to 199 acres:	62	38				
200 acres and over:	70	30				
Delta States:		53			2	14
: Under 10 acres:	44	51			5	47
10 to 24 acres:		46		1	2	47
25 to 49 acres:		34			1	46
50 to 99 acres:		20	1		1	47
100 to 199 acres:		13	1		1	46
200 to 299 acres:		6				43
300 acres and over:		4				43 49
Southern Plains:		10	1/	1/	1/	47
<u> </u>						
Under 10 acres:	28	50	9	6	7	18
10 to 24 acres:	44	40	7	4	5	29
25 to 49 acres:	61	27	6	3	3	30
50 to 99 acres:	70	22	5	2	1	25
100 to 199 acres:	80	16	4			22
200 to 299 acres:	85	12	3			21
300 acres and over:	91	7	2			23
Mountain:	84	13	3	1/		25
: Under 10 acres:	25	54	13	1	7	58
				-		
10 to 24 acres:	41	47	8	1	3	47
25 to 49 acres:	54	37	5	1	3	39
50 to 99 acres:	62	32	4		~~~	23
100 to 199 acres:	69	29	2		2	13
200 to 299 acres:	74	25	1			5
300 acres and over: Pacific:	84 77	16 22	1			<u>2</u> 8
racilic:		<i>44</i>	T	<u>1</u> /	-	•
United States:	64	19	8	7	2	24

^{1/} Less than 0.5 percent.

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Table 8.- Wheat: Percentage of acreage harvested by specified methods, by crop acreage, United States, 1960

:	Percentage of acreage										
Crop acreage,		Соп	, (D)								
United States :	From stand	ing crop by	From wi	ndrow by	Threshed and all	Combined by custom					
:	Self- propelled	: Pull- : type	: Self- : propelled	: Pull- : type	other:	operator					
:	Percent	Percent	Percent	Percent	Percent	Percent					
Under 10 acres:	21	66		3	10	37					
10 to 24 acres:	33	53	2	6	6	25					
25 to 49 acres:	46	40	5	7	2	21					
50 to 99 acres:	56	21	10	12	1	22					
: 100 to 199 acres:	65	11	13	11	1/	24					
200 to 299 acres:	74	8	12	6		15					
300 acres and over:	87	5	6	2		24					
United States:	54	19	8	7	2	24					

^{1/} Less than 0.5 percent.

Table 9.--Oats: Acreage harvested and percentage of the acreage harvested by specified methods, by State and region, 1950 and 1960

:	: :	:	F	ercentage of	acreage, 1	.960		: :	Percentage of acreage, 1950			
:	1960	:	ned	:		1950	: Combined		Threshed			
State and region	acreage harvested					Threshed and all	Combined by custom	acreage harvested	: As :		or cut	
:		Self- propelled	Pull- type	Self-	Pu11-	•	operator	: : :	standing:	From windrow	fed un- threshed	
: : :	1,000 acres	Percent	Percent	Percent	Percent	Percent	Percent	1,000 acres	Percent	Percent	Percent	
New England:	62	7	80			13	26	113	52	1	47	
New York:		22	69			9	39	719	59	1	40	
New Jersey:		16	76			8	32	35	83	1	16	
Pennsylvania:		21	68			11	35	733	62	1	37	
Delaware:								8	87		13	
Maryland:		36	55			9	35	45	5ó	2	42	
Northeast		21	69			10	36	1,653	60	1	39	
Wiekinen	710	26	4.9				•••	1 242			2-	
Michigan:		26	68			6	18	1,347	71	4	25	
Wisconsin:		25	58	2	6	9	16	2,896	30	9	61	
Minnesota:		5 14	7 30	23	55 33	.10	14	5,101	66	51	43	
Lake States:	6,788	14	3(1	14	33	9	15	9,344	23	31.	46	
Ohio	-,-	25	73			2	1ó	1,075	88	2	10	
Indiana:		33	66			1	18	1,272	87	4	9	
Illinois:	,	33	64			3	12	3,796	70	22	8	
Iowa:	4,100	10	37	4	45	4	14	6,520	36	37	27	
Missouri:	499	33	53	2	3	9	18	1,452	5 <u>4</u>	4	42	
Corn Belt:	8,296	21	51	2	23	3	14	14,115	5ô	24	20	
North Dakota:	1,974	4	4	46	43	3	6	2,088	5	61	34	
South Dakota:	2,704	4	5	29	57	5	12	3,311	8	51	41	
Nebraska:		28	22	12	3ó	2	7	2,562	3.9	18	43	
Kansas:	422	64	29	5	1	1	12	901	75	4	21	
Northern Plains:	6,313	13	10	29	44	4	9	8,862	23	39	38	
: Virginia::	90	26	65			9	27	110	47	1	52	
West Virginia:		21	32			47	13	41	21	1	78	
North Carolina:		27	60			13	21	356	68	1	31	
Kentucky:		26	57			17	13	56	32	1	67	
Tennessee:		20	68			12	23	180	53	2	45	
Appalachian:		25	61			14	22	743	5ó	1	43	

		:	P	ercentage of	acreage, 1	.960		:	Percentage of acreage, 1950			
State and region	1960 acreage	From standir		bined	row by	: : : Threshed	: : Combined.	:	: Combined		Threshed or cut	
	harvested	:	: Pull- type	: Self- propelled	: Pull-	and all other	by custom operator				ripe and fed un- threshed	
		Percent	Percent	Percent	Percent	Percent	Percent	1,000 acres	Percent	Percent	Percent	
South Carolina		44	49			7	12	448	60	2	38	
Georgia		28	57			15	7	340	66		34	
Florida:		48	49			3	6	9	47		53	
Alabama:		22	69			9	9	72	61	11	38	
Southeast:	511	35	\$5			10	10	869	62	1	37	
Mississippi	160	63	35			2	16	139	83	3	14	
Arkansas:								165	64	1	35	
Louisiana:		49	48			3		4.5	64	2	34	
Delta States:	200	60	38			2	16	349	71	2	27	
Oklahoma	447	67	24	4	2	3	32	473	51	12	37	
Texas:	942	63	31	3	1	2	28	1,228	69	7	24	
Southern Plains-:	1,389	65	29	3	1	2	29	1,701	64	8	28	
Montana	251	44	20	24	6	6	5	326	34	10		
Idaho:	161	5 6	29	6	6	3	22	216	78	2	20	
Wyoming:	92	49	19	14	15	3	17	152	61	7	32	
Colorado:	137	41	20	22	9	8	23	169	48	9	43	
New Mexico:	12	51	49				20	28	42	10	48	
Arizona:		40	60				30	10	70		30	
Utah:	26	44	32	9		15	39	51	51		49	
Nevada:	2	37	36	27			26	6	80		20	
Mountain	690	47	24	17	7	5	ló	958	53	7	40	
Washington:	117	61	18	5	1	15	19	172	5ó	9	35	
Oregon:		69	24	5	1	1	30	344	75	15	10	
California:		48	43	4	5		8	196	80	9	11	
Pacific		60	29	5	2	4	19	712	72	12	16	
United States-:	26,528	21	35	12	26	6	15	39,306	42	2ΰ	32	

Table 10.--Oats: Percentage of acreage harvested by specified methods, by crop acreage and region, 1960

:	: :		Percentage o	of acreage-		
	:	Combine	d	:	CT11	
Crop acreage and region	From standin	g crop by	From wind	lrow by	Threshed and all	Combined by custom
	Self- : propelled :	Pu11- type	: Self- : propelled :		other	operator
:	Percent	Percent	Percent	Percent	Percent	Percent
Under 10 acres	: : 17	70			13	47
10 to 24 acres		68			9	34
25 to 49 acres		66			8	16
50 to 99 acres		62			5	7
Northeast		42 69			10	36
Under 10 acres		52	4	10	15	36
10 to 24 acres		45	7	20	12	22
25 to 49 acres		31	11	34	9	13
50 to 99 acres		17 4	22 32	45 53	5 2	9 7
Lake States	· 	30	14	33	9	15
Under 10 acres	17	69	4	4	6	34
10 to 24 acres	: 19	61	3	13	4	22
25 to 49 acres		50	3	23	3	13
50 to 99 acres		40	2	33	1	8
Corn Belt		31 51	<u>1'</u>	35 23	3	14
	· · · · · · · · · · · · · · · · · · ·					
Under 10 acres	: 45	37	6	6	6	25
10 to 24 acres:	34	26	16	19	5	13
25 to 49 acres		12	25	39	4	15
50 to 99 acres		6	32	50	4	8
100 acres and over		<u>5</u>	35 29	<u>53</u> 44	<u>2</u> 4	<u>6</u> 9
:						
Under 10 acres	17	64			19	37
10 to 24 acres		62			14	22
25 to 49 acres		60			7	12
50 to 99 acres		56			2	5
Appalachian		45 61			14	<u>1</u> 22
:						
Under 10 acres		59		~	25	33
10 to 24 acres		56			19	20
25 to 49 acres		55			12	6
50 to 99 acres:		54			4	5
100 acres and over		50 55			10	10
Journeast	• 55	55	==	· · ·-	TO	10

Table 10.--Oats: Percentage of acreage harvested by specified methods, by crop acreage and region, 1960--Continued

	:		Percentage	of acreage-	-	
	:	Combined		:	m	0 1-1
Crop acreage and region	From standing	g crop by	crop by : From windrow by		Threshed and all	Combined by custom
	Self- : propelled :	Pull- type	Self- propelled	: Pull- : type :	other	operator
	<u>Percent</u>	Percent	Percent	Percent	Percent	Percent
Under 10 acres	20	65			15	39
10 to 24 acres	: 36	54			10	31
25 to 49 acres:	56	40			4	25
50 to 99 acres:	75	25				12
100 acres and over	86	14				11
Delta States	60	38			2	16
Under 10 acres	36	51	2	3	8	38
10 to 24 acres		41	3	3	5	36
25 to 49 acres		35	3	2	2	33
50 to 99 acres:	: 66	28	5	1	<u>1</u> /	32
100 acres and over	75	20_	5			21
Southern Plains	65	29	3	1	2	29
Under 10 acres	35	35	10	11	9	41
10 to 24 acres		27	17	9	8	26
25 to 49 acres		21	21	8	7	14
50 to 99 acres		18	17	8	5	6
100 acres and over		10	15	4	1	1
Mountain		24	17	7	5	16
Under 10 acres	41	41	11		7	51
10 to 24 acres		32	7	3	5	39
25 to 49 acres	· ·	23	6	2	5	27
50 to 99 acres		18	4	2	1	22
100 acres and over:	· -	17	3	1	1	8
Pacific		29	5	2	4	19
United States	21	35	12	26	6	15

^{1/} Less than 0.5 percent.

Table 11.--Oats: Percentage of acreage harvested by specified methods, by crop acreage, United States, 1960

: :	Percentage of acreage										
: Crop acreage, :		Cor	mbined		: Threshed	: Combined					
United States :	From standing crop by		From win	ndrow by	: and all : other	<pre>: by custom : operator</pre>					
:	Self- propelled	: Pull- : type	: Self- : propelled	: Pull- : type		:					
:	Percent	Percent	Percent	Percent	Percent	Percent					
Under 10 acres:	17	62	3	5	13	37					
: 10 to 24 acres:	20	51	5	15	9	22					
25 to 49 acres:	21	39	9	25	6	14					
: 50 to 99 acres:	23	23	15	35	4	10					
: 100 acres and over: :	29	17	21	32	1	7					
: United States:	21	35	12	26	6	15					

Table 12.--Barley: Acreage harvested and percentage of the arreage harvested by specified methods, by State and region, 1950 and 1960

								:	Percentage of acr	eage, 1950	
State and region acre	: 1960	:	Combine	ed				: 1950	: Combined		: : Threshed
State and region	: acreage : harvested	From standin	g crop by	From wi	From windrow by:		Combined by custom	acreage harvested	:		or cut
	:	: Self- : : propelled :	Pull- type	: Self- : propelled:	Pull- :	:	operator	: :	As standing grain	WINGIOW	fed un- threshed
	1,000 acres	Percent	Percent	Percent	Percent	Percent	Percent	1,000 acres	Percent	Percent	Percent
New York		47	53				19	81	72		28
New Jersey	-: 24	43	50			2	31				
Pennsylvania	: 168	35	62			3	27	182	76	2	22
Delaware	: 16	46	50			4	27				
Maryland	.: 94	48	50			2	32	85	80		20
Others	:							38	84		16
Northeast	328	41	56			3	28	386	77	1	22
Michigan	69	37	59			4	14	115	50	21	29
Wisconsin		24	50	2	22	2	16	219	44	18	38
Minnesota	: 892	5	1	46	46	2	8	1,252	2	77	21
Lake States	994	8	7	41	42	2	9	1,58ó	11	65	24
Ohio	: 54	32	ó5			3	14				
Indiana		38	61	~~~		1	13				
Illinois	-	44	54			2	7				
Towa		9	51		37	3	16	53	24	66	10
Missouri	-	46	43	4	3	4	15	80	76	2	22
Others								92	76	15	9
Corn Belt		39	52	2	4	3	13	225	64	22	14
North Dakota	3,456	6	3	60	30	1	7	2,146	7	79	14
South Dakota	. ,	18	8	30	42	2	9	1,148	14	64	22
Nebraska		47	17	24	10	2	21	310	59	21	20
Kansas	-	7.5	11	12	1	1	15	254	90	5	5
Northern Plains		20	5	48	26	1	9	3,858	19	65	16
Virginia	115		55			7	25	89	53		47
West Virginia		21	70			9	30				
North Carolina		31	61			8	22				
Kentucky		33	60			7	16	73	69	2	29
Tennessee	- 12	25	71			4	23	64	85		15
Others	•							49	74	1	25
ULINCES	297	33			-	-		• • • • • • • • • • • • • • • • • • • •		-	

Table 12.--Barley: Acreage harvested and percentage of the acreage harvested by specified methods, by State and region, 1950 and 1960 -- Continued

	: :	: :	Pei	centage of	acreage, 1	960		: :	Percenta	ge of acr	eage, 1950
	: : : 1960	: 	Combine	•		: :		: :	: Combin	ned	Threshed or cut
State and region	: acreage	From standi	ng crop by	: From win	drow by	Threshed	Combined	1950	:	From	ripe and
	: harvested :		: Pull- type	: Self- : propelled:	Pull-	and all other:	by custom operator	acreage harvested	: As : standing: grain :	rrom	fed un- threshed
	: : 1,000 : acres	Percent	Percent	Percent	Percent	Percent	Percent	1,000 acres	Percent	Percent	Percent
Southeast and Delta	: 40	30	69			1	2	27	81		19
0klahoma	: 664	77	18	1	1	3	28	52	92	· ·	4
Texas	:405	73 75	27				35	125	98		1
Southern Trains	1,069		21	1	1	2	31	177	96		2
Montana	: 1,704	82	12	6			11	852	80	10	10
Idaho	: 561	75	16	7	1	1	14	424	91	4	5
Wyoming		45	34	12	9		28	151	77	4	19
Colorado	: 545	58	11	27	3	1	23	489	78	5	17
New Mexico	: 40	66	33	1			27				
Arizona		81	19				68	157	95	1	4
Utah		72	20	5		3	45	141	82	1	17
Ne va da		50	50				67				
Others								51	93_	11	6
Mountain	: 3,255 :	75	14	9	1	1	19	2,265	83	6	11 '
Washington		74	22	3		1	8	254	95	1	4
Oregon		70	29			1	9	337	94	1	5
California		86	11	1	2		30	1,765	98		1
Pacific	: 2,704 :	80	17	2	1	1/	21	2,356	97	1	2
United States	13,930	49	14	22	13	2	16	11,155	52	34	14

^{1/} Less than 0.5 percent.

Table 13.--Barley: Percentage of acreage harvested by specified methods, by crop acreage and region, 1960

	: :		Percentage	of acreage-	-	
	:	Combined	1	:	T11	0-1:1
Crop acreage and region	From standi	ng crop by	From win	drow by	Threshed and all	Combined by custom
	Self- propelled	: Pull- : type	Self- propelled	: Pull- : type :	other	operator
	Percent	Percent	Percent	Percent	Percent	Percent
Under 10 acres	30	66			4	33
10 to 24 acres		58			2	28
25 to 49 acres		47				26 23
50 to 99 acres 100 acres and over		32 25				
Northeast	41	56			3	28
Under 10 acres	13	53	5	20	9	20
10 to 24 acres		25	14	40	6	12
25 to 49 acres		7	28	51	4	10
50 to 99 acres			44	46	2	10
100 to 199 acres			53	41		9
200 acres and over Lake States		7	6 <u>2</u> 41	33 42	2	9
Lake States	•		41	42 		
Under 10 acres	28	65		2	5	25
10 to 24 acres		54	2	4	3	14
25 to 49 acres		43		7	1	5
50 acres and over Corn Belt		<u>27</u> 52	15 2	4	3	13
colli belt						
Under 10 acres	46	28	6	15	5	12
10 to 24 acres	43	20	14	20	3	19
25 to 49 acres		10	28	29	2	16
50 to 99 acres		6	40	32	1	9
100 to 199 acres 200 acres and over		3 2	58 68	26 19	1/	6 5
Northern Plains		5	48	26	1	9
						
Under 10 acres	: 17	70			13	34
10 to 24 acres	27	65 5.5			8	24
25 to 49 acres 50 to 99 acres		55			2	15
100 to 199 acres		32 27	~			6
200 acres and over		20				
Appalachian		60			7	22
Under 10 acres	9	83			8	13
10 to 24 acres		63 77				
25 to 49 acres		70				
50 to 99 acres		57				
100 to 199 acres	: 55	45				
200 acres and over		34				
Southeast and Delta	: 30	69			1	2
	` 					

Table 13.--Barley: Percentage of acreage harvested by specified methods, by crop acreage and region, 1960--Continued

:		:	Percentage of	f acreage-	-	
Coop company and marion :		Combined			Threshed	: Combined
Crop acreage and region	From standi	ng crop by	From wind	drow by	and all	by custom
:	Self- propelled	: Pull- : type	: Self- : propelled	Pull- type	other	operator
:	Percent	Percent	Percent	Percent	Percent	Percent
Under 10 acres:	51	37		5	7	42
10 to 24 acres:	62	34			4	39
25 to 49 acres:	69	25	3	1	2	37
50 to 99 acres:	77	21		1	1	35
100 to 199 acres:	84	16				26
200 acres and over:	88	12				
Southern Plains:	75	21	1	1	2	31
						
Under 10 acres:	52	32	5	6	5	50
10 to 24 acres:	58	23	11	5	3	41
25 to 49 acres:	63	20	14	2	1	29
50 to 99 acres:	69	17	13	1		20
100 to 199 acres:	80	12	8			11
200 acres and over:	84	9	7			7
Mountain:	75	14	9	1	1	19
			Ja. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.			
Under 10 acres:	48	39	6	~~-	7	43
10 to 24 acres:	58	34	4	1	3	37
25 to 49 acres:	65	31	3		1	29
50 to 99 acres:	72	26	2			22
100 to 199 acres:	76	21	2	1		19
200 to 299 acres:	80	18	1	1		16
300 acres and over:	87	11	1	1		5
Pacific:	80	17	2	1	<u>1</u> /	21
: United States:	49	14	22	13	2	16

^{1/} Less than 0.5 percent.

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Table 14.--Barley: Percentage of acreage harvested by specified methods, by crop acreage, United States, 1960

: :			Percentage	of acreage		
: Crop acreage,		Com	bined			:
United States :	From stand:	ing crop by	From win	drow by	and all	Combined by custom
<u> </u>	Self- propelled	: Pull- : type	Pull-type Self- itype Pull- itype other Percent Percent Percent Percent 56 2 5 7 36 7 10 5 20 15 17 2 9 24 19 1/ 7 31 13 5 35 7	operator		
:	Percent	Percent	<u>Percent</u>	<u>Percent</u>	Percent	Percent
Under 10 acres:	30	56	2	5	7	31
10 to 24 acres:	42	36	7	10	5	24
25 to 49 acres:	46	20	15	17	2	20
50 to 99 acres:	48	9	24	19	<u>1</u> /	15
100 to 199 acres:	49	7	31	13		10
: 200 acres and over: :	53	5	35	7		10
: United States:	49	14	22	13	2	16

^{1/} Less than 0.5 percent.

Table 15.--Rye: Acreage harvested and percentage of the acreage harvested by specified methods, by State and region, 1950 and 1960

:	: :	: :	Per	centage of	acreage, 1	960		: :	Percenta	ige of acre	eage, 1950
:	1960	:	Combine	:d		:	: :	: : 1950	Combin	ned	Threshed
State and region	acreage	From standin	ng crop by	From win	drow by	: Threshed	Combined	acreage	:		or cut
	harvested	Self-: propelled:	Pul1-	: Self- : propelled:	type	and all other	by custom operator	harvested:	As : standing: grain :	windrow	ripe and fed un- threshed
	1,000 acres	Percent	Percent	Percent	Percent	Percent	Percent	1,000 acres	Percent	Percent	Percent
Michigan	34	40	60				20	60	62	4	34
Wisconsin:	23	35	61	4			17	92	31	5	64
Minnesota		16	10	36	36	2	19	162	12	32	5ó
Lake States:	115	27	35	19	18	1	19	314	27	19	54
Ohio	25	35	62			3	10				
Indiana:	59	44	55			1	14	59	85	6	9
Illinois:	63	45	53			2	11	50	94		6
Iowa:		51	47		1	1	19				
Missouri:		55	41			4	40				
Others:								76	80	6	14
Corn Belt:	195	46	52		1/	2	13	185	86	4	10
North Dakota:	303	2	1	65	32		13	220	9	76	15
South Dakota:	222	1 5	2	40	42	1	9	420	11	67	22
Nebraska:	175	58	30		4	8	28	224	67	9	24
Kansas:	140	76	22	2			_18_	42	89	5	6
Northern Plains:	840	29	11	34	24	2	21	906	28	52	20
Northeast:	65	43	55			2	26	73	88		12
Appalachian:	50	46	5 1			3	18	84	66	1	33
Southeast:	23	58	41			1	22	9	89		11
Southern Plains:		73	27				30	73	96	2	2
Mountain:	107	82	16			2	33	59	76	2	22
Pacific:		80	18			2	4	50	62	22	35
All other regions -:	403	669	229			2	19	348	79	1	20
United States:	1,553	42	22	20	14	2	20	1,753	4-1	31	25

^{1/} Less than 0.5 percent.

Table 16.--Rye: Percentage of acreage harvested by specified methods, by crop acreage and region, 1960

	:]	Percentage o	f acreage				
:		Combined	1		Threshed	: Combined		
Crop acreage and region	From standi	ng crop by	From win	drow by	and all	by custom		
	Self- propelled	: Pull- : type	Self- propelled	: Pull- : type :	other	operator		
:	Percent	Percent	Percent	Percent	Percent	Percent		
Under 5 acres	22	59	3	8	8	35		
5 to 9 acres	: 28	48	9	11	4	27		
10 to 19 acres	: 31	39	13	15	2	22		
20 to 29 acres	: 30	29	22	18	1	16		
30 to 49 acres	: 23	20	34	23		14		
50 to 99 acres	: 12	11	40	37				
100 acres and over	:							
Lake States	27	35	19	18	1	19		
•	`= ==== :							
Under 5 acres	: 27	64		2	7	23		
5 to 9 acres	: 32	62		1	5	20		
10 to 19 acres	: 40	57		1	2	19		
20 to 29 acres	: 55	44			1	18		
30 to 49 acres	: 59	41				15		
50 to 99 acres	: 61	39				10		
100 acres and over	65	35						
Corn Belt	: 46	52		1/	2	18		
,								
Under 5 acres	: 49	38		8	5	8		
5 to 9 acres	: 45	35	2	14	4	13		
10 to 19 acres	: 43	27	9	18	3	19		
20 to 29 acres	: 37	23	16	23	1	20		
30 to 49 acres	: 29	14	30	27		21		
50 to 99 acres	: 28	10	36	26		16		
100 acres and over		3	49	23		1.5		
Northern Plains	: 29 :	11	34	24	2	21		
**	:				10	20		
Under 5 acres	: 25	65			10	20		
5 to 9 acres	: 31	62			7	25		
10 to 19 acres	: 43	54			3	30		
20 to 29 acres		46			1	24		
30 to 49 acres		35				14		
50 to 99 acres		25				11		
100 acres and over		23				9		
All other	: 69 :	29			2	19		
United States	: : 42	22	20	14	2	20		

/ Less than 0.5 percent.

Table 17.--Rye: Percentage of acreage harvested by specified methods, by crop acreage.

United States, 1960

:			Percentag	ge of acreage			
: Crop acreage,		Сол	bined		:	Combined by custom	
United States	From stand	ing crop by	: From wi	indrow by	Threshed and all		
:	Self- propelled	: Pull- : type	: Self- : propelled	: Pull- : type	other	operator	
: :	<u>Percent</u>	Percent	Percent	Percent	Percent	Percent	
Under 5 acres:	27	59		4	10	23	
5 to 9 acres:	33	56	1	5	5	22	
: 10 to 19 acres:	37	44	6	10	3	21	
20 to 29 acres:	40	33	13	13	1	20	
30 to 49 acres:	42	19	20	19	<u>1</u> /	18	
50 to 99 acres:	45	12	26	17		16	
100 acres and over:	55	6	28	11		9	
: United States:	42	22	20	14	2	20	

¹/ Less than 0.5 percent.

Table 18 .-- Sorghum: Acreage harvested and percentage of the acreage harvested by specified methods, by State and region, 1950 and 1960

		:	Pero	entage of a	creage, 19	160		:		tage of e, 1950
State and region	1960 acreage	: :	Combined		:	Threshed	: Combined	1950 acreage	: :	: Threshed
	harvested	From standir		From winds	:	and all	by custom operator	harvested	Combined	<pre>: with : stationary</pre>
	: :	: Self- : propelled	: Pull- : type	: Self- : propelled			: operator :	: ::	: :	: thresher
	:							1,000		
:	1,000 acres	Percent	Percent	Percent	Percent	Percent	Percent	acres	Percent	Percent
Indiana								2	75	25
Illinois	: 14	51	47			2	14			
Iowa	43	48	45			7	16			
Missouri	452	54	39			7	19	30	50	50
Corn Belt	509	53	40			7	19	32	52	48
South Dakota	180	59	30	3	5	3	21	94	85	15
Nebraska:	1,796	7 4	21			5	24	194	90	10
Kansas	4,296	82	12	3		3	19	1,943	95	5
Northern Plains	6,272	79	15	2	<u>1</u> /	4	20	2,231	94	6
Oklahoma		71	2 6	2		1	42			
Texas		79	20	1		1/	56			
Southern Plains	7,583	79	20	1		1/	55	7,236	100	
Colorado		79	20			1	21			
New Mexico:	237	79	21				22			
Arizona:		80	19			1	53			
Mountain	730	79	20	1/	1/	1	26	626	95	5
North Carolina	84	33	63			4	16	23	90	10
Tennessee:	32	2 7	67			6	17	6	40	60
South Carolina:	7	52	43			5	18	8	90	10
Alabama:	20	44	52			4	10	34	40	60
Mississippi:								5	40	60
Arkansas:	19	46	38			16	26	29	30	70
Louisiana:								2	30	70
California:		95	3	1	11		19	114	95	5
All other States:	395	70	26	1	1	2	18	221	74	26
United States	15,489	77	19	2	1/	2	37	10,346	98	2

^{1/} Less than 0.5 percent.

Table 19.--Sorghum: Percentage of acreage harvested by specified methods, by crop acreage and region, 1960

:	:	P	ercentage of	f acreage		
		Combined		:	Thurshad	: Combined
Crop acreage and region	From standi	ng crop by	From win	drow by	Threshed and all	Combined by custom
	Self- propelled	: Pull- : type	Self- propelled	: Pull- : type :	other	operator
	Percent	Percent	Percent	Percent	Percent	Percent
Under 5 acres	: : 19	66			15	33
5 to 9 acres:	: 28	58			14	23
10 to 19 acres:	39	51			10	22
20 to 29 acres:	52	43			5	18
30 to 49 acres:		28			8	16
50 to 99 acres:		21				10
100 acres and over:		15				8
Corn Belt:	: 53 :	40			7	19
Under 5 acres	25	62	1	1	11	20
5 to 9 acres		51	1	2	8	29
10 to 19 acres		36	ī	3	5	36
20 to 29 acres		27	1	1	6	30
30 to 49 acres		18	2		3	22
50 to 99 acres		11	3		1	20
100 acres and over		3	5		1	13
Northern Plains		15	2	1/	4	20
:						
Under 5 acres:		54			5	19
5 to 9 acres:		46		2	2	25
10 to 19 acres		38	2	1	1	33
20 to 29 acres:		34	2	1	<u>1</u> /	36
30 to 49 acres:		29	1	<u>1</u> /		46
50 to 99 acres:		25	1			54
100 acres and over: Southern Plains:		<u>14</u> 20	1		<u></u>	60 55
:						
Under 5 acres		61			13	54
5 to 9 acres:		55			9	49
10 to 19 acres:		47			7	47
20 to 29 acres:		37	~		4	44
30 to 49 acres:	: 66	32			2	31
50 to 99 acres:		26				23
100 acres and over:		15				16
Mountain:	79 	20	1/	1/	1	26
United States:	77	19	2	<u>1</u> /	2	37

^{1/} Less than 0.5 percent.

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Table 20.--Sorghum: Percentage of acreage harvested by specified methods, by crop acreage,
United States, 1960

: :	Percentage of acreage									
: Crop acreage,		Cor	nbined		: 001					
United States :	From standi	ng crop by	From wir	ndrow by	Threshed and all	Combined by custom				
<u> </u>	Self- propelled	: Pull- : type	: Self- : propelled	: Pull- : type	other	operator				
:	Percent	Percent	Percent	<u>Percent</u>	Percent	Percent				
Under 5 acres:	21	62	1	<u>1</u> /	16	23				
5 to 9 acres:	38	52	<u>1</u> /	1	9	26				
: 10 to 19 acres:	51	42	1	1	5	29				
20 to 29 acres:	62	32	1	2	3	31				
30 to 49 acres:	70	27	1	1	1	40				
: 50 to 99 acres:	80	19			1	40				
: 100 acres and over: :	86	11	2		1	43				
: United States:	77	19	2	1/	2	37				

^{1/} Less than 0.5 percent.

	:	: :	Pe	rcentage of	acreage, 1	960		: :	Percenta	age of acre	eage, 1950
	1960	From standing	Combine	_ 	ndrow by	: :		1950	Combin	ned	Threshed or cut
State and region	acreage harvested	•	Pu11-	: Self- : propelled:	Pu11-	Threshed and all other	Combined by custom operator	acreage harvested	As standing grain	Percent 5 1 27 24 1 1 2 8 2 3	ripe and fed un- threshed
	1,000 acres	Percent	Percent	Percent	Percent	Percent	Percent	1,000 acres	Percent	Percent	Percent
New Jersey		69	26			5	15				
Delaware		25	75				17	67	100		
Maryland		51	49				25	71	100		
Others								51	93		2
Northeast	-: 447 :	41	59				21	189	98	1	1
Michigan	: 221	44	55			1	16	114	100		
Wisconsin	-: 96	24	74			2	20	33	95		4
Minnesota		24	47	7	21	1	15	1,113	71		2
Lake States	-: 2,407 :	26	49	6	18	1	15	1,260	74	24	2
Ohio	1,499	37	62			1	12	1,090	99	1	
Indiana	-: 2,415	44	56				16	1,652	99	1	
Illinois	-: 4,973	50	50				14	3,989	98	2	
Iowa	-: 2,599	32	62	2	3	1	19	1,930	91	8	1
Missouri	-: 2,344	60	39			1	21	1,209	97	2	1
Corn Belt	-: 13,830 :	46	53	1/	1	1/	16	9,870	97	3	1/
Nebraska	: 164	55	39		5	1	20	50	91	9	
Kansas		72	28				17	39̂7	99		1
North Dakota	-:							41	79	21	
South Dakota								70	75	21	4
Northern Plains	-: 750 :	68	31		1	1/	18	558	94	5	1
Virginia	: 320	51	49				13	152	100		
West Virginia	-:							1	96	1	3
North Carolina	-: 545	54	46				26	297	99	1	
Kentucky	-: 199	56	44				6	126	95	1	3
Tennessee	-: 394	64	36				18	182	100		
Appalachian	1,458	5ó	44			1/	19	758	99	1/	1

Table 21.--Soybeans: Acreage harvested and percentage of the acreage harvested by specified methods, by State and region, 1950 and 1960 -- Continued

	: :	: :	Pe	rcentage of	acreage, 1	960	:	:	Percenta	ge of acre	eage, 1950
	: : 1960	:	Combin	ed		:		: : 1950	Combin	ied	: Threshed
State and region	acreage	From standin	g crop by	From win	drow by	Threshed	Combined	acreage	:		or cut
	harvested:	: Self- : Self- : propelled :	Pull- type	: : Self- : :propelled:	I GII -	and all other	by custom operator	harvested	As standing grain		fed un- threshed
	: 1,000 : acres	Percent	Percent	Percent	Percent	Percent	Percent	1,000 acres	Percent	Percent	Percent
South Carolina	• • 499	72	27			1	15	67	98	1	1
Georgia	75	52	40			8	5				
Florida		61	33			6	14				
Alabama	: 133	73	26			1	20	68	99		
Others	:							35	93	2	5
Southeast	737	70	28			2	15	170	97	1	2
Mississippi	916	87	13				37	358	100		
Arkansas		71	28			1	38	581	96	3	1
Louisiana		66	34				31	40	100		
Delta States	3,541	75	25	****		1/	37	979	97	2	1
Southern Plains			~~=					23	97	3	
United States	23,170	50	4 6	1	3	<u>1</u> /	19	13,807	95	4	1

^{1/} Less than 0.5 percent.

Table 22.--Soybeans: Percentage of acreage harvested by specified methods, by crop acreage and region, 1960

	Percentage of acreage									
:		Combined	(Dlanca all and	Chid						
Crop acreage and region	From standi	ng crop by	From wind	lrow by	Threshed and all	Combined by custom				
:	Self- propelled	Pull- type	Self- propelled	Pull- : type :	other	operator				
:	Percent	Percent	Percent	Percent	Percent	Percent				
Under 10 acres	62	33			5	35				
10 to 24 acres:	56	41			3	32				
25 to 49 acres:	47	52			1	30				
50 to 99 acres:	39	61				23				
100 acres and over:	35	65				14				
Northeast:	41	59			1/	21				
Under 10 acres	7	68	1	19	5	30				
10 to 24 acres:		61	2	21	2	22				
25 to 49 acres:		55	5	20	1	17				
50 to 99 acres:		48	6	17		12				
100 to 199 acres:		·28	11	14		9				
Lake States:	26	49	6	18	1	15				
					<i>-</i>	40				
Under 10 acres:		71		3	5	43				
10 to 24 acres:		66	1	2	2	31				
25 to 49 acres:		62 5.5	1	2	1/	22				
50 to 99 acres:		55 35		1		14				
Corn Belt		35 53	1/	1	1/	8 16				
:										
Under 10 acres:		62			8	26				
10 to 24 acres:		49		2	4	31				
25 to 49 acres:		37		1	2	26				
50 to 99 acres:		27			<u>1</u> /	9				
100 to 199 acres:		10				4				
Northern Plains:	68	31		1	1/	18				
Under 10 acres:	23	69			8	42				
10 to 24 acres:	35	62			3	36				
25 to 49 acres:	43	56	~	-	1	25				
50 to 99 acres:		47			<u>1</u> /	13				
100 to 199 acres:		23				7				
Appalachian:	56	44			1/	19				

Table 22.--Soybeans: Percentage of acreage harvested by specified methods, by crop acreage and region, 1960--Continued

:	Percentage of acreage									
:		Combi	/Dl 1 1							
Crop acreage and region	From stand	ing crop by	Threshed and all	Combined by custom						
:	Self- propelled	: Pull- : type	: Self- : propelled :	Pull- : type :	other	operator				
	Percent	Percent	Percent	Percent	Percent	Percent				
Under 10 acres	15	71			14	20				
10 to 24 acres:		61			10	27				
25 to 49 acres:	50	46			4	29				
50 to 99 acres:	64	36				25				
100 to 199 acres:	83	17				7				
Southeast	70	28			2	15				
Under 10 acres:	35	54			11	42				
10 to 24 acres:		46			8	61				
25 to 49 acres:		39			3	57				
50 to 99 acres		34			2	40				
100 to 199 acres		23			1/	33				
Delta States		25			1/	37				
United States	50	46	1	3	1/	19				

^{1/} Less than 0.5 percent.

Table 23.--Soybeans: Percentage of acreage harvested by specified methods, by crop acreage, United States, 1960

; ;_			Percentage	e of acreage			
Cmon comocac		Com	: :				
Crop acreage, United States	From stand:	ing crop by	From wir	ndrow by	Threshed and all	Combined by custom	
· :	Self- propelled	: Pull- : type	: Self- : propelled	: Pull- : type	other:	operator	
: :	Percent	<u>Percent</u>	<u>Per cent</u>	Percent	Percent	Percent	
Under 10 acres:	22	69		4	5	39	
10 to 24 acres:	29	64		5	2	31	
25 to 49 acres:	35	59	<u>1</u> /	5	1	23	
50 to 99 acres	45	52	<u>1</u> /	3		15	
100 to 199 acres:	72	27		1		15	
United States:	50	46	1	3	1/	19	

^{1/} Less than 0.5 percent.

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Table 24.--Peanuts: Acreage harvested and percentage of the acreage harvested by specified methods, by State and region, 1950 and 1960

:	:	:	Perc	: :	Percentage of acreage, 1950					
State and region	1960 acreage	:	Combined		:	Threshed	: Combined	1950 acreage		Threshed
state and region	harvested	From standin	g crop by	From windrow by		and all	by custom	harvested	Combined	: with : stationary
: :		: Self- : propelled	: Pull- : type	<pre>Self- : propelled:</pre>		other	operator :	: :	:	thresher
:	1,000 acres	Percent	Percent	Percent	Percent	Percent	Percent	1,000 acres	Percent	Percent
: North Carolina:	176	15	40			45	48			
Appalachian:								379		100
South Carolina:								19		100
Georgia:	4 75	6	44			50	9	728	5	95
Florida:	47		78			22	12	72		100
Alabama:	191		54			46		335		100
Southeast:								20		100
Oklahoma	110		25		70	5	21	212	50	50
Texas:	285		10	2	80	8	45	490	63	37
: ::New Mexico	6		9		85	6		7	50	50
: : United States :	1,290	4	3 7	2/	24	35	22	2,262	20	80

^{1/} For selected States in 1960; harvesting data obtained from Virginia, a major producing area, was inconclusive and could not be used in these tabulations.

²/ Less than 0.5 percent.

Table 25.--Flaxseed: Acreage harvested and percentage of the acreage harvested by specified methods, by State, 1950 and 1960

		:	Percentage of acreage, 1960						Percentage of acreage, 1950			
	1960	: :	Combine			:	:	1950	: Combined		:	
State	acreage harvested	·	ng crop by	<u> </u>		Threshed and all	Combined by custom	acreage harvested	·	:	: Threshed : with	
	: 121 VCS VCG	: Self-	: Pull- : type	: Self- : propelled:	Pull-	other	operator	:	: As : standing: grain :		<pre>:stationary : thresher :</pre>	
	1,000 acres	Percent	Percent	Percent	Percent	Percent	Percent	1,000 acres	Percent	Percent	Percent	
Minnesota	584	5	2	42	49	2	12	1,217	5	79	16	
North Dakota	1,955	6	3	55	34	2	7	1,909	20	75	5	
South Dakota	601	9	4	36	48	3	16	503	10	80	10	
All other <u>1</u> /	168	61	24	10	5		36	461	79	19	2	
United States	; ; ; 3,308	9	4	48	37	2	11	4,090	21	70	9	

^{1/} Only for States reporting. Includes Texas, Montana and Iowa.

Table 26.—Dry edible beans and field peas: Acreage harvested and percentage of acreage harvested by specified methods, by State, 1960

	:	:	Percentage o		: :			
	: Acreage	:	Combin	Threshed	Combined by custom			
State	: harvested	From standi	ng crop by	From win	drow by	and all other	operator	
	:	Self- propelled	Pull-type	Self- : Pull-type propelled :			:	
	: Acres	Percent	Percent	Percent	Percent	Percent	Percent	
Michigan	: 494, 2 48	48	38			14	26	
Idaho	: 2 58,76 3	25	8	40	2 7	6-10 Part #70	25	
Colorado	204 ,687	24	2	23	49	2	12	
Washington	: 233,118	55	16	15	9	5	14	
California	250,153	19	12	15	54	Note Sens Serve	32	
All Other	: 303,892	24	33	21	15	7	25	
United States	:1,744,861	34	22	1 7	21	6	24	

Table 27.—Alfalfa and clover seed (Red and Alsike): Acres harvested and percentage of acreage harvested by specified methods, by State and region, 1960

:		•	Percentage of	•	:			
:	: Acreage	:	Combin	Threshed	Combined by system			
State and region	harvested	From standing crop by		From win	drow by	other	by custom operator	
		Self- propelled	Pull-type	Self-: Pull-typ		:	: :	
	<u>Acres</u>	Percent	Percent	Percent	Percent	Percent	Percent	
Ohio	191,413	33	65			2	31	
Indiana	170,066	3 0	65		many hours hours	5	15	
Illinois	·	20	67		<u> </u>	13	20	
Iowa	106,442	5	28	2	62	3	11	
Missouri	143,251	25	35	2	25	13	12	
Corn Belt	816,568	24	55	1	13	7	19	
North Dakota	14,121	46	7	26	16	5	9	
South Dakota	•	30	10	29	30	1	1	
Nebraska		40	13	12	29	6	7	
Kansas	•	33	7	29	22	9	1 7	
Northern Plains		35	10	22	26	7	9	
Washington	20,292	3 8	3	46	5	8	1 7	
Oregon	•	2 8	17	49	4	2	27	
California	•	48	4	44	4	-	26	
Pacific		45	5	45	4	1	29	
A11 other	456,418	31	38	12	13	6	14	
United States-	1,776,819	30	39	11	14	6	1 7	

Table 28.--All grass seed: Percentage of acreage harvested by specified methods, by region, 1960

:	Percentage of acreage								
Danier		(D) 1 1							
Region	From standin	ng crop by	From wind	irow by	Threshed and				
:	Self- propelled	: Pull- : type	: Self- : propelled	: Pull- : type	all other				
: :	Percent	Percent	Percent	Percent	Percent				
Corn Belt	16	70	7		7				
Northern Plains:	47	31	13	9	ang ned see				
A11 other	59	32	5	744 est	4				
United States:	44	43	7	2	4				

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