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**COSTS OF PRODUCING FOOD GRAINS,  
FEED GRAINS, OILSEEDS,  
AND COTTON, 1974-76**

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**United States Department of Agriculture  
Economic Research Service  
Agricultural Economic Report No. 338**

## **ABSTRACT**

This report presents regional and national estimates of variable, machinery ownership, and general farm overhead costs per acre and per unit for crop years 1974, 1975, and projections for 1976. Estimates of the land and management cost components are not included. Cost estimates are included for food grains, feed grains, oilseeds, and cotton crops.

Production costs were higher in 1974 than in previous years because of rapidly rising input prices and generally poor yields for most crops in most regions. In 1975 production costs per acre showed a continued but slowed increase varying from 6 percent for flaxseed to 25 percent for corn. However, yields increased from 3 to 26 percent and thereby held per unit costs near the 1974 levels. In fact, cost estimates per bushel for barley, soybeans, and flaxseed actually declined in 1975. Cotton costs were the exception, increasing by almost 24 percent in 1975.

Given projected yield levels, unit costs in 1976 would be only slightly higher than in 1975. Projected favorable yields and falling input prices, especially for fertilizer, are responsible for the smaller rate of increase indicated.

**KEYWORDS:** Farm production, commodity production costs, agricultural costs, costs and returns, enterprise budgets.

## PREFACE

The Agriculture and Consumer Protection Act of 1973 directed the Secretary of Agriculture to study the costs of producing major agricultural commodities and to annually update estimates of these costs. To initiate this program, the Economic Research Service conducted a nationwide survey of producers with the cooperation of the Statistical Reporting Service in early 1975 to obtain data with which to estimate production costs for 1974. A report of that study entitled *Costs of Producing Selected Crops in the United States, 1974*, was published in December 1975 as Committee Print 63-092, Senate Committee on Agriculture and Forestry. In addition to providing cost estimates for a specific year, the survey provided information on farmers' production practices, kinds and quantities of production inputs used, types and sizes of machinery and equipment utilized, and other items related to crop production.

This information was incorporated into a series of budgets contained in the firm enterprise data system (FEDS) to provide a basis for updating the annual production costs until another major survey of crops is conducted for 1978. This report presents the first set of cost estimates generated by FEDS.

Even though the 1974 survey provided the basis for the 1974 estimates, the preliminary 1975, and projected 1976 costs reported here, resulting costs generated by FEDS and presented here are not strictly comparable. Some variation results from differences in procedures, geographic coverage (FEDS estimates represent a larger proportion of U.S. production than the survey), the fact that FEDS costs are based on planted acres rather than the harvested acres used for the survey estimates, and some additional minor differences in assumptions. In addition, no management or land charge is included in the 1974 and 1975 estimates or projections for 1976.

To compare the survey and FEDS estimates for 1974, and the 1974 survey estimates and the 1975 preliminary and 1976 projections reported here, some recombination of the data is necessary. The sum of the variable and machinery ownership expenses shown here is more nearly comparable to the "total direct costs" shown in the Committee Print. Alternatively by adding a management charge and land allocation to the costs reported here, the total obtained would be comparable, *though not strictly so*, to the costs shown in the Committee Print.

To illustrate the comparisons, national average estimates for "all wheat" are shown on the next page for 1974-76. The estimates for 1974 (COPS) were taken from the 1974 study report (table A-1), and the FEDS 1974, 1975 preliminary and 1976 projected costs, with the exception of the management and land allocation components, are from tables 26-28 included here. To approximate total costs, the management charge for these years is computed as 7 percent of the value of gross sales as in the 1974 study. The net share rent land allocation was calculated as 33.7 percent of gross returns, the 1974 study average. Including approximations for these components, the resulting illustrative total costs may be obtained, enabling a rough comparison of the production costs.

### Related Reports on Costs of Production

*Costs of Producing Selected Crops in the United States, 1974*. Prepared for the Senate Committee on Agriculture and Forestry by the Economic Research Service, U.S. Department of Agriculture. Committee Print 63-092, December 1975.

*Costs of Producing Selected Crops in the United States, 1974: A Summary*. ERS-620, Economic Research Service, U.S. Department of Agriculture, December 1975.

Krenz, Ronald, et al. "Costs of Producing Major Crops: Easing in 1976." *Agricultural Outlook*, Economic Research Service, USDA, April 1976.

"Cost of Production Self-calculator Guide," *Agricultural Outlook*, Economic Research Service, USDA, May 1976.

Walter, Alan S. and Gail D. Garst. "Costs of Production for Soybeans, Peanuts, and Flaxseed for 1974, 1975 and 1976." *Fats and Oils Situation*, ERS, USDA, April 1976.

*Cost of Producing Milk in the United States, 1974*. Prepared for the Senate Committee on Agriculture and Forestry by the Economic Research Service, U.S. Department of Agriculture. Committee Print, scheduled for publication in June 1976.

**Illustrative cost comparison for all wheat,  
COPS and FEDS, 1974-76, United States**

Item	Actual		Preliminary	Projected
	1974 (COPS)	1974 (FEDS)	1975 (FEDS)	1976 (FEDS)
	<i>Dollars</i>			
Operating expenses	N/A	1.30	1.30	1.29
Machinery ownership	N/A	.46	.48	.50
<b>Total direct</b>	<b>1.58</b>	<b>1.76</b>	<b>1.78</b>	<b>1.79</b>
Overhead	.20	.19	.19	.19
Management <sup>1</sup>	.26	.26	.24	.23
<b>Total (excl. land)</b>	<b>2.04</b>	<b>2.21</b>	<b>2.21</b>	<b>2.21</b>
Land allocation (net share rent basis) <sup>2</sup>	1.27	1.27	1.18	1.10
<b>Total</b>	<b>3.31</b>	<b>3.48</b>	<b>3.39</b>	<b>3.31</b>
Yield (bu./acre) <sup>3</sup>	27.1	24.7	28.4	29.7
Price (dol./bu.) <sup>4</sup>	3.71	3.71	3.49	3.25

Note N/A = not available.

<sup>1</sup>Calculated as 7 percent of gross per acre value or alternatively 7 percent of price.

<sup>2</sup>The net share rent land allocation shown for this illustration is calculated as follows: Obtain gross returns per acre (yield times price) and then obtain landlord's net share (the 1974 survey average was 33.7 percent). For example for 1975, 28.4 bu. times \$3.49 equals \$99.12 gross returns. 33.7 percent of this amount is \$33.40 or \$1.18 per bushel (33.40 divided by 28.4).

<sup>3</sup>The yield for COPS of 27.1 is per harvested acre and those for FEDS are per planted acre. The 1975 yield estimate is preliminary and the 1976 yield is a projection.

<sup>4</sup>The 1974 price is the survey average. The 1975 price is from "Crop Values," SRS, USDA, CRPR 2-1-1 (76), Jan. 29, 1976. For 1976, a price of \$3.25 is assumed for this illustration.

## CONTENTS

	<i>Page</i>
Preface .....	i
Summary .....	iv
Introduction .....	1
Objectives and Procedures .....	2
Data for 1974 .....	3
Data for 1975 .....	3
Projections for 1976 .....	4
Data Comparisons .....	4
Summary of Cost Estimates .....	4
Cotton .....	7
Corn .....	10
Grain Sorghum .....	13
Barley .....	16
Oats .....	19
Wheat .....	22
Soybeans .....	32
Flaxseed .....	35
Peanuts .....	36
Rice .....	39

## SUMMARY

Production costs (variable, machinery ownership, and general farm overhead costs) were higher in 1974 than in previous years because of rapidly rising input prices and generally poor yields for most crops and regions. In 1975, production costs per acre continued upward, from 6 percent for flaxseed to 25 percent for corn. However, yields increased from 3 to 26 percent, thereby holding per unit costs near the same levels as in 1974. In fact, estimated costs per bushel for barley, soybeans, and flaxseed actually declined in 1975. Cotton costs per bale were the exception, increasing almost 24 percent in 1975.

If the projected alternative yield levels used for this study are realized, unit costs in 1976 could increase further but at much slower rates than in 1975. Projected favorable yields and falling input prices, especially for fertilizer, are mainly responsible for the smaller rate of increase indicated.

Costs per acre and per unit of production for 1974, 1975, and projections for 1976 are shown regionally and nationally. Information from the Economic Research Service Cost of Production Survey for 1974 is utilized in a system of crop enterprise budgets in estimating specified production costs (land and management charges are not included) for food grains, feed grains, oilseeds, and cotton crops. Survey data are supplemented by price and yield data for 1974, 1975, and 1976 reported by the Statistical Reporting Service, USDA.

This system of crop budgets is used to annually update estimates and provide projections for the coming crop year. The system has proved to be workable in terms of providing estimates comparable to those obtained from the Cost of Production Survey and at a reasonable cost in a short

time period. This report contains the first set of estimates obtained with this procedure.

All cost estimates of agricultural production are subject to error. Costs are extremely variable among farmers. Not only do farmers pay different prices for their inputs, they also use widely different production techniques and realize different yields. Among individual farmers there could easily be a 50-percent variation on either side of the regional and national average estimates presented here.

For 1976 projections, a range in yields is used to demonstrate the effect of variations in the regional and national average yields upon unit production costs. This range in per unit costs by no means covers the complete range of costs that individual farmers may experience. These estimates are based on a considerable number of projections for both yields and prices. Therefore, they should only be used as guides, and any application of these estimates should be confined to situations amenable to the assumptions of this study.

Estimated costs of producing 10 major crops

Crop	Unit	1974	1975	1976
<i>Dollars</i>				
Cotton lint <sup>1</sup> .....	lbs.	.331	.409	.361 - .453
Corn .....	bu.	1.46	1.48	1.40 - 1.56
Grain sorghum ....	do.	1.46	1.55	1.45 - 1.67
Barley .....	do.	1.50	1.47	1.47 - 1.61
Oats .....	do.	.97	1.08	.99 - 1.15
Wheat <sup>2</sup> .....	do.	1.88	1.91	1.79 - 2.04
Soybeans .....	do.	2.41	2.34	2.40 - 2.59
Flax .....	do.	5.29	4.47	4.26 - 5.31
Peanuts .....	lbs.	.089	.092	.091 - .098
Rice .....	cwt.	---	5.88	5.82 - 6.22

<sup>1</sup> Costs after value of cottonseed is subtracted. <sup>2</sup> Costs after value of wheat pasture is subtracted.

# COSTS OF PRODUCING FOOD GRAINS, FEED GRAINS, OILSEEDS, and COTTON, 1974-76

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## INTRODUCTION

During the past few years, farmers, consumers, and policymakers have become increasingly conscious of farm production costs. The upsurge of interest has been brought about by rapidly increasing prices paid by farmers for production inputs and by widely fluctuating product prices.

Cost of production information has always been useful to farmers. Their decisions relative to what and how much to produce may be significantly enhanced by accurate cost data. Consumers, facing rapidly rising food prices, desire to know the justification for rapid increases in food costs. How much of the price increase is associated with increased farm costs? How much with other costs? How much may be due to larger profit rates of processors and handlers?

Policymakers are also exhibiting a keener interest in production costs. Reflecting this concern, the Agriculture and Consumer Protection Act of 1973 requires the Department of Agriculture to provide the Congress with annual estimates of the costs of producing cotton, feed grains, wheat, and milk. The law also establishes target prices for cotton, feed grains, and wheat and a procedure for adjusting target prices on the basis of the Index of Prices Paid for Production Items, Interest, Taxes, and Wage Rates and changes in the 3-year moving average yield for individual crops. Although the law does not relate the target price levels specifically to cost of production, it does provide for adjustment of target prices according to changes in price levels of input items.

In fulfilling the cost of production requirement in the 1973 Act, the Economic Research Service (ERS) undertook a nationwide survey of production costs for cotton, corn, grain sorghum, barley, winter wheat, durum wheat, other spring wheat, soybeans, peanuts, flaxseed, and milk. The results of this survey of crop costs were submitted to the Senate Committee on Agriculture and Forestry in a report entitled, *Costs of Producing Selected Crops in the United States, 1974*, December 1975. The results were summarized and published in a briefer

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<sup>1</sup>Krenz, Garst, and Micheel are Agricultural Economists, in the Agricultural Policy Analysis Program Area, Commodity Economics Division, Economic Research Service, and Fawcett and Rogers are with the Department of Agricultural Economics, Oklahoma State University, all located in Stillwater, Okla. This study is the result of the substantial efforts of a number of individuals in the Grains and Feeds, Oil Crops, Fibers, and Agricultural Policy Analysis Program Areas in addition to the authors listed.

report, *Costs of Producing Selected Crops in the United States, 1974: A Summary*, ERS-620, ERS, USDA, December 1975. Estimates of milk production costs will be released in a separate report in the near future.

This report presents estimates of crop production costs for 1974, utilizing to a great extent the results of the ERS survey, but with coverage

extended to additional geographical areas and to include rice and oats. Using this data base, preliminary estimates are made for 1975 and projections are made for 1976. A condensed summary of the findings appeared in an article, "Costs of Producing Major Crops: Easing in 1976," in the April 1976 issue of *Agricultural Outlook*, a periodic report of ERS.

## OBJECTIVES AND PROCEDURES

The ERS cost of production survey constitutes one of the major components in the process of estimating costs of producing major crops. However, such surveys are extremely expensive and cannot feasibly be conducted for all commodities each year. Major agricultural commodity groups will be surveyed on a 4-year rotation. The survey for 1974 crop costs was conducted in early 1975, a survey of meat animals is now underway to obtain 1975 costs; fruits, vegetables, tobacco, and sugar beets will be surveyed for 1976 costs, poultry and dairy for 1977, and crops will be surveyed again for 1978 costs. In addition, there is a considerable lag from the time production occurs until the surveys can be taken and the final estimates made available. For these reasons a second component in the cost estimating procedure was established. This report describes the second component and presents the first set of estimates made with this procedure.

The primary objectives of this component are to provide a means of annually updating the cost estimates between the years when surveys are taken, to provide more up-to-date estimates of cost of production, and if possible, to provide projections of costs for the upcoming crop year. These cost estimates should be more timely and less expensive to prepare than those resulting from formal surveys. It is anticipated that a series of cost estimates similar to those reported here will be made and reported each year.

This second component consists of a series of computerized crop enterprise budgets serviced by a series of budget generators and aggregation programs.<sup>2</sup> Crop enterprise budgets for 1974 were developed for 10 crops in the major producing

States. In general, only one budget per crop for each State was developed. However, in States where alternative production technologies such as irrigation and summer fallow are used, additional budgets were developed.

The crops included in this study and the number of budgets used to estimate costs for each crop are as follows:

Crops	Number of budgets
Cotton	18
Corn	23
Grain Sorghum	17
Barley	17
Wheat	
Durum	6
Spring	7
White	6
Soft winter	10
Hard winter	25
Soybeans	22
Peanuts	9
Flaxseed	3
Oats	13
Rice	7

These 183 budgets were developed for, and processed by, a redesigned version of the Oklahoma Budget Generator.<sup>3</sup> Three sets of these budgets were developed to represent costs in 1974, 1975, and 1976. The exception was rice, for which only 1975 and 1976 budgets were prepared.<sup>4</sup>

<sup>2</sup>This system of budgets and cost estimating procedures is operated by the staff of the firm enterprise data system (FEDS), an ERS research group stationed at Oklahoma State University. However, the estimates so derived should not be confused with the FEDS research budgets. The research budgets are developed using similar procedures but are estimates for smaller production areas and are updated annually but without projections for the year ahead. These budgets are available in printed form for specific areas of the country.

<sup>3</sup>The Oklahoma Budget Generator was originally written by Rodney L. Walker and Darrel D. Kletke. For a discussion of the most recent version, see Kletke, Darrel D. *Operation Manual for the Oklahoma State University Enterprise Budget Generator*, Research Report P-179, Oklahoma State University, June 1975.

<sup>4</sup>The cost of production survey did not include rice or oats. The FEDS staff developed budgets for oats and the rice budgets were developed by rice analysts in the field staff of the Grains and Feeds Program Area of the Commodity Economics Division. Rice budgets were designed to reflect 1975 conditions and no attempt was made to respecify them to a 1974 level.



Budgets were developed to include the variable production, machinery ownership, and general farm overhead costs only. An attempt was made to include estimates of the cost of crop failure (abandonment) by developing the budgets on the basis of planted acres. Estimates of land and management costs were intentionally excluded.

Variable costs include seed, fertilizer, chemicals, custom operations, labor, fuel and lubricants, repairs, interest, and miscellaneous costs. Machinery ownership costs include charges for replacement, interest, insurance, and taxes. General farm overhead includes such costs as record-keeping, farm utilities, general farm maintenance, and similar items that are difficult to allocate to a specific enterprise.

Cost estimates in this report are weighted averages of all the budgets developed for each commodity. Acreage planted to each crop in each State for 1974 is used as the weighting factor in all 3 years with one exception. Because the cotton acreage decreased substantially in 1975 with significant regional shifts in production, acreage weights for cotton in 1975 and 1976 are the 1975 acreage estimates of USDA's Statistical Reporting Service (SRS) for cotton in each State. Although there were changes in acreages of other crops between 1974 and 1976, there were no significant regional shifts. Hence, the 1974 acreage estimates are used.

### Data for 1974

Budgets developed for 1974 were based primarily upon data obtained from the ERS cost of production survey. Survey data provided information on machinery types, sizes, and field operations performed. Further, the survey data provided information on quantities of fertilizer applied, quantities of seed used, and cost of farm chemicals. Additionally, estimates of general farm overhead costs were obtained directly from the survey.

The survey data were supplemented with data from a variety of other published and unpublished sources. To the greatest extent possible, data on yields, fertilizer prices, seed prices, machinery prices, and some custom rates came from SRS reports. Various other sources were used for the remaining custom rates, ginning costs for cotton, and drying costs for corn and grain sorghum. In addition, machinery price data available through SRS were limited in coverage and had to be supplemented. Machinery dealers' price lists, manufacturers' suggested list prices, personal interviews and contacts with equipment dealers, and in-house estimates were all used in estimating machinery and implement costs.

Since the 1974 ERS cost of production survey did not cover any production areas in the Northeast, budgets representing those production areas had to be developed. All budgets in this region were constructed under the direction of George Frick.<sup>5</sup> This set of budgets was subject to the same assumptions and procedures as the other budgets that incorporated survey data.

### Data for 1975

Budgets for 1975 were based on the machinery types, sizes, operations, and the input use levels of the 1974 budgets. All yields, input prices, and costs related to yields such as grain drying and cotton ginning were specified at 1975 levels using appropriate indices and available price data. Yield estimates for 1975 were based on the SRS November preliminary yield data.

Although the assumption that input levels remained constant from 1974 to 1975 greatly simplified the study, it also served to somewhat limit the accuracy of the resulting estimates. However, there were offsets. For example, although there is some indication that per acre fertilizer application rates declined in response to higher fertilizer prices, a larger percentage of acres received fertilizer.

Machinery prices were adjusted on the basis of 1975 changes in the national farm machinery price index of SRS from 1974. (See table 1.) Other indexes

Table 1—Price Indexes for Selected Production Items

	1974	1975	1976
	(1910-14=100)		
Items used for production . . .	494	539	552
Motor supplies . . . . .	292	318	345
Farm machinery . . . . .	769	950	1,055
Fertilizer . . . . .	299	343	320
Farm supplies <sup>1</sup> . . . . .	409	475	515
Wages . . . . .	<sup>2</sup> 1,454	1,601	1,750
Custom rates . . . . .	100	121	135
Drying costs . . . . .	100	113	123

<sup>1</sup> Used as a base for projecting all pesticide costs. <sup>2</sup> The wage index for 1974 was converted from a 1967=100 to a 1910-14=100 index.

of prices paid were applied to 14 different categories of overhead costs. These indexes were then averaged to provide a single index that was used to update the 1974 estimates of overhead costs to 1975.

<sup>5</sup>ERS Agricultural Economist stationed at the University of New Hampshire, Durham, N.H.

## Projections for 1976

Budgets were developed to represent 1976 conditions using many of the same procedures as for 1975. However, two differences should be noted. First, 1976 yields per acre were projected at alternative levels, which appeared to be reasonable in the fall of 1975, instead of the single point yield estimates used for the other years.<sup>6</sup> Second, the prices of all inputs except seed were projected on the basis of prices paid indexes. (See table 1.) Seed prices were assumed to be the same in 1976 as in 1975, except for rice, which was assumed to decline 15 percent. The value of cottonseed was assumed to be the same as in 1975. The 1976 machinery prices and overhead costs were projected using the prices paid indexes in the same manner as for the 1975 budgets.

### Data Comparisons

Index numbers of prices paid for several categories of inputs used in specifying 1975 and projecting 1976 costs are presented in table 1. Numbers listed for 1974 are those published in *Agricultural Prices: Annual Summary 1974*. Numbers listed for 1975 and 1976 are estimates by ERS in the fall of 1975.

"Custom rates" index numbers are assumed to consist of 86 percent machinery, 8 percent fuel, and 6 percent labor costs; "drying costs" are assumed to consist of 65 percent fuel, 25 percent machinery, and 10 percent labor costs.

The U.S. averages of fuel and fertilizer prices and interest and wage rates are listed in table 2. In

<sup>6</sup>Actual yields per acre for 1976 may vary considerably from these indications depending upon weather conditions during the remainder of the 1976 season.

Table 2—U.S. average input prices

	Unit	1974	1975	1976 <sup>1</sup>
Gasoline .....	Gal.	.436	.484	.525
Diesel .....	Gal.	.338	.376	.408
Liquid petroleum (LP) gas .....	Gal.	.302	.304	.330
Electricity .....	KWH	.0266	.0308	.0334
Natural gas .....	Thous. cu. ft.	.525	.743	.806
Short-term interest rate <sup>2</sup> ...	Pct.	9.63	9.1	8.75
Long-term interest rate <sup>2</sup> ...	Pct.	8.14	8.7	9.0
Labor .....	Dol./Hr	2.29	2.52	2.76
Nitrogen (N) .....	Lb.	.153	.203	.189
Phosphate (P <sub>2</sub> O <sub>5</sub> ) .	Lb.	.167	.237	.221
Potash (K <sub>2</sub> O) .....	Lb.	.068	.085	.079
Lime applied .....	Ton	7.00	9.03	8.42

<sup>1</sup> Estimated using indexes from table 1 and 1975 base year. Motor supplies Index used for gasoline, diesel, LP gas, electricity and natural gas; wages Index used for labor rates; and fertilizer index used for N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O and lime. <sup>2</sup> In 1975 and 1976, national averages were used for all States.

the cost estimating procedures, prices of all input items were varied according to differences by States reported for 1974 by SRS. With the exception of natural gas prices, all fuel price estimates for 1974 and 1975 are taken from *Agricultural Prices*. Gasoline and diesel prices are midyear estimates excluding 4 cents and 2 cents Federal excise tax per gallon, respectively. Liquid petroleum and electricity prices are annual averages. Natural gas rates reflect average prices paid by industrial users in July of each year. Interest rates shown are the national averages of Production Credit Associations' rates (short-term) and the Federal Land Bank rates (long-term). Wage rates are the U.S. average annual wage rates per hour excluding room and board. Fertilizer prices are the April 15 prices for compounds in their primary nutrient form, weighted by quantities sold in those forms in 1974.

## SUMMARY OF COST ESTIMATES

Cost estimates for 1974, 1975, and projections for 1976 are summarized in table 3. These costs refer only to variable, machinery ownership, and overhead costs as discussed earlier in this report. No estimates for land, management, or risk are included.

In general, costs per unit of output in 1974 were higher than in prior years because of poor yields per acre and rapidly rising input prices. Per acre costs for 1975 were considerably higher and per unit costs showed slight increases even with higher yields because of continued input price inflation. For 1976, both the projected costs per acre and the

midpoints of per unit costs generally show smaller increases than previously.

Over the 3-year period, specified costs per acre increased most for those crops with the highest proportion of chemical and fertilizer inputs. Costs of producing corn increased the most (32 percent) and flaxseed the least (13 percent).

Specified costs per unit of output depend upon both per acre costs and yields. Between 1974 and 1975, per unit costs increased most for cotton, almost 24 percent. But because of relatively large yield increases in 1975 over 1974, per unit costs of barley, soybeans, and flaxseed actually declined.

**Table 3—Summary of specified costs and yields for 10 major crops,  
U.S. averages**

Crop	Unit	1974	1975	1976
<b>Cost per acre</b>				
Cotton .....	Acre	\$ 175.32	\$ 202.17	\$ 217.61
Corn .....	do.	101.94	126.88	134.25
Grain sorghum .....	do.	63.07	77.45	81.80
Barley .....	do.	50.50	59.64	62.59
Oats .....	do.	40.11	48.13	50.78
Wheat .....	do.	47.99	56.04	58.44
Soybeans .....	do.	55.19	65.30	69.57
Flax .....	do.	40.32	42.90	45.69
Peanuts .....	do.	216.22	241.11	255.73
Rice .....	do.	---	268.42	274.01
<b>Yield per planted acre</b>				
Cotton lint .....	lb.	399.8	412.5	405.7 - 491.8
Corn .....	bu.	69.6	85.8	86.3 - 96.2
Grain sorghum .....	do.	43.1	49.9	48.9 - 56.5
Barley .....	do.	33.6	40.7	38.8 - 42.5
Oats .....	do.	41.5	44.4	44.0 - 51.3
Wheat .....	do.	24.7	28.4	27.8 - 31.6
Soybeans .....	do.	23.0	27.9	26.9 - 28.9
Flax .....	do.	7.6	9.6	8.6 - 10.7
Peanuts .....	lb.	2,433.2	2,612.7	2,614.2 - 2,810.4
Rice .....	Cwt.	---	45.60	44.06 - 47.06
<b>Cost per unit of output</b>				
Cotton lint <sup>1</sup> .....	lb.	\$ 0.331	\$ 0.409	\$ 0.361 - 0.453
Corn .....	bu.	1.46	1.48	1.40 - 1.56
Grain sorghum .....	do.	1.46	1.55	1.45 - 1.67
Barley .....	do.	1.50	1.47	1.47 - 1.61
Oats .....	do.	.97	1.08	.99 - 1.15
Wheat <sup>2</sup> .....	do.	1.88	1.91	1.79 - 2.04
Soybeans .....	do.	2.41	2.34	2.40 - 2.59
Flax .....	do.	5.29	4.47	4.26 - 5.31
Peanuts .....	lb.	.089	.092	.091 - 6.22
Rice .....	Cwt.	---	5.88	5.82 - 6.22

<sup>1</sup> Cost after value of cottonseed is subtracted. <sup>2</sup> Cost after value of wheat pasture is subtracted.

During the 3 years, specified per unit costs (using the midpoint of the projected 1976 costs) varied from a decrease of about 10 percent for flaxseed to an increase of about 23 percent for cotton lint.

Although direct comparisons of these cost estimates (hereafter called "FEDS" estimates) and cost of production (COP) survey estimates are not strictly valid, the two sets of cost estimates are relatively close. Some variation results from differences in procedures and the geographic coverage. While the COP estimates include only production from farms with acreages above a specified minimum, FEDS estimates attempt to represent costs for all farms through use of SRS average yields and prices. Further, the quantities of production on which the two sets of costs are based differ substantially. The COP survey covered only major geographic production areas whereas FEDS estimates represent almost all of U.S. production, hence including more areas of minor production. Finally, the *COP estimates are based on costs per harvested acre and FEDS estimates are based on planted acres*. This difference, though small in most instances, becomes significant in areas with high rates of crop failures.

As a consequence of these differences, the FEDS estimates would be expected to be somewhat higher than the COP estimates, an expectation borne out by the comparison of results shown in table 4. The COP estimates exceed FEDS estimates in only two instances. For grain sorghum, the per unit cost estimates are almost identical. For flaxseed, the yields reported by survey respondents were significantly lower than the SRS yield estimates.

Table 4—Comparison of COP and FEDS cost estimates per unit, 1974

	Unit	COP <sup>1</sup>	FEDS
<b>Cotton</b>			
Yield lint .....	lb.	410	400
Cost per lb. of lint and seed .....	dol.	0.428	0.439
<b>Corn</b>			
Yield .....	bu.	74.3	69.6
Cost per bu. ....	dol.	1.43	1.46
<b>Grain sorghum</b>			
Yield .....	bu.	44.0	43.0
Cost per bu. ....	dol.	1.47	1.46
<b>Barley</b>			
Yield .....	bu.	35.7	33.6
Cost per bu. ....	dol.	1.40	1.50
<b>Oats</b>			
Yield .....	bu.	( <sup>2</sup> )	41.5
Cost per bu. ....	dol.	( <sup>2</sup> )	0.97
<b>All wheat</b>			
Yield .....	bu.	27.1	24.7
Cost per bu. ....	dol.	1.78	1.95
<b>Soybeans</b>			
Yield .....	bu.	24.7	23.0
Cost per bu. ....	dol.	2.40	2.41
<b>Flaxseed</b>			
Yield .....	bu.	7.1	7.6
Cost per bu. ....	dol.	5.41	5.29
<b>Peanuts</b>			
Yield .....	lb.	2,959	2,433
Cost per lb. ....	dol.	0.079	0.089

<sup>1</sup> COP cost estimates presented here include the total direct cost and overhead cost only. Specified in this way, they include the identical cost components that the FEDS estimates include.

<sup>2</sup> The COP survey did not include oats.

# COTTON

For the 3 years, specified costs per acre and yields were consistently highest in the Southwest (Arizona, California, and New Mexico) and lowest in the Southern Plains (Oklahoma and Texas). (See tables 5-7.) However, costs per pound of lint were consistently lowest in the Southwest where cotton is irrigated. Costs per pound were generally highest in the Southeast (Alabama, Georgia, and South Carolina) where high levels of fertilization and chemical use are required.

Cotton yields were about 15 percent lower in 1974 than the 1973 average yields. In both the

Southern Plains and the Delta region (Arkansas, Louisiana, Mississippi, and bordering areas in Missouri and Tennessee), yields were especially low in 1974, accounting for the relatively higher per unit costs in those regions. Though both the cost per acre and per pound of lint showed substantial increases in 1975, the rate of increase in 1976 is expected to be less if normal yields are attained. But it should be noted that the range in alternative yields projected for 1976 provides a rather wide range of possible per unit costs.

**Table 5—Cotton: specified production costs, 1974**

	Southeast	Delta	Southern Plains	Southwest	United States
<i>Dollars</i>					
Cost per acre					
Variable					
Seed .....	5.62	4.83	5.07	5.39	5.09
Fertilizer .....	31.88	18.55	11.66	46.73	20.45
Lime .....	3.29	.97	---	---	.68
Chemicals <sup>1</sup> .....	47.26	27.89	12.90	47.77	25.90
Custom operations <sup>2</sup> .....	17.22	8.42	9.31	51.81	15.08
All labor .....	11.75	12.68	10.06	40.14	14.79
Fuel and lubricants .....	7.79	7.50	6.49	9.13	7.29
Repairs .....	10.44	13.67	5.90	14.45	10.03
Ginning .....	21.80	22.89	18.40	59.57	25.31
Miscellaneous expenses .....	---	---	---	<sup>3</sup> 6.47	.79
Interest .....	4.70	2.78	2.77	8.75	3.72
Total variable cost .....	161.75	120.18	82.56	290.21	129.13
Machinery ownership cost					
Replacement .....	27.00	32.14	15.79	27.76	23.92
Interest .....	11.59	14.14	7.98	13.30	11.08
Taxes and insurance .....	2.67	3.10	2.50	3.05	2.79
Total ownership cost .....	41.26	49.38	26.27	44.11	37.79
General farm overhead .....	6.96	8.37	6.38	19.13	8.40
Grand total .....	209.97	177.93	115.21	353.45	175.32
<i>Pounds</i>					
Yield of lint per acre .....	431.5	374.0	237.5	1,019.0	399.8
<i>Dollars</i>					
Costs per pound of seed cotton					
Variable .....	.375	.321	.347	.285	.323
Machinery ownership .....	.096	.132	.111	.043	.095
General farm overhead .....	.016	.022	.027	.019	.021
Total of above .....	.487	.475	.485	.347	.439
Value of cottonseed .....	.100	.103	.097	.126	.108
Costs per pound of lint .....	.387	.372	.388	.221	.331
<i>Percent</i>					
Percent of U.S. production .....	11.4	30.4	25.2	30.4	97.5

See footnotes at end of table 7.

Table 6—Cotton: specified production costs, 1975

	Southeast	Delta	Southern Plains	Southwest	United States
	<i>Dollars</i>				
Cost per acre					
Variable					
Seed .....	5.67	6.95	6.99	7.64	6.79
Fertilizer .....	42.25	26.95	16.84	53.11	26.40
Lime .....	3.23	.99	---	---	.58
Chemicals <sup>1</sup> .....	52.91	31.98	15.10	55.44	28.24
Custom operations <sup>2</sup> .....	19.37	9.93	11.37	60.75	17.52
All labor .....	13.11	13.89	10.80	43.38	15.94
Fuel and lubricants .....	8.59	8.22	7.44	10.88	8.17
Repairs .....	12.99	16.90	7.54	17.92	12.00
Ginning .....	22.07	29.59	20.52	67.07	29.05
Miscellaneous expenses .....	---	---	---	<sup>3</sup> 7.94	.94
Interest .....	5.27	3.19	3.36	9.49	4.21
Total variable cost .....	185.46	148.59	99.66	333.62	149.84
Machinery ownership cost					
Replacement .....	33.14	39.61	20.28	34.42	28.77
Interest .....	11.64	13.75	8.86	13.50	11.09
Taxes and insurance .....	2.95	3.31	2.98	3.27	3.10
Total ownership cost .....	47.63	56.67	32.14	51.19	42.96
General farm overhead .....	7.76	9.33	7.11	21.33	9.37
Grand total .....	240.85	214.58	138.91	406.14	202.17
	<i>Pounds</i>				
Yield of lint per acre .....	375.4	421.4	264.1	1,015.8	412.5
	<i>Dollars</i>				
Costs per pound of seed cotton					
Variable .....	.494	.353	.377	.328	.363
Machinery ownership .....	.127	.134	.122	.050	.104
General farm overhead .....	.021	.022	.027	.021	.023
Total of above .....	.642	.509	.526	.399	.490
Value of cottonseed .....	.072	.081	.076	.091	.081
Costs per pound of lint .....	.570	.428	.450	.308	.409
	<i>Percent</i>				
Percent of U.S. production .....	7.2	30.2	32.1	30.4	99.9

See footnotes at end of table 7.

Table 7—Cotton: specified production costs, 1976

	Southeast	Delta	Southern Plains	Southwest	United States
	<i>Dollars</i>				
Cost per acre					
Variable					
Seed .....	5.67	6.95	6.69	7.64	6.79
Fertilizer .....	39.40	25.14	15.70	49.55	24.62
Lime .....	3.23	.99	---	---	.58
Chemicals <sup>1</sup> .....	57.38	34.68	16.38	60.12	30.63
Custom operations <sup>2</sup> .....	21.57	11.06	12.67	66.71	19.41
All labor .....	14.42	15.16	12.45	46.61	17.46
Fuel and lubricants .....	9.32	8.92	8.07	11.80	8.87
Repairs .....	14.35	18.67	8.34	19.79	13.26
Ginning .....	25.58	35.13	26.83	69.38	34.17
Miscellaneous expenses .....	---	---	---	<sup>3</sup> 8.82	1.04
Interest .....	5.20	3.15	3.35	9.44	4.18
Total variable cost .....	196.12	159.85	110.48	349.86	161.01
Machinery ownership cost					
Replacement .....	36.62	43.77	22.43	38.03	31.80
Interest .....	11.94	14.11	9.26	13.85	11.46
Taxes and insurance .....	3.04	3.53	3.24	3.49	3.34
Total ownership cost .....	51.60	61.41	34.93	55.37	46.60
General farm overhead .....	8.29	9.96	7.59	22.77	10.00
Grand total .....	256.01	231.22	153.00	428.00	217.61
	<i>Pounds</i>				
Yield of lint per acre .....	364.2 - 448.5	428.1 - 512.4	280.5 - 364.8	934.2 - 1,018.5	407.5 - 491.8
	<i>Dollars</i>				
Costs per pound of seed cotton					
Variable .....	.437 - .538	.312 - .373	.303 - .393	.344 - .374	.327 - .395
Machinery ownership .....	.115 - .142	.120 - .143	.096 - .125	.054 - .059	.095 - .114
General farm overhead .....	.018 - .023	.019 - .023	.021 - .027	.022 - .024	.020 - .025
Total of above .....	.570 - .703	.451 - .539	.420 - .545	.420 - .457	.442 - .534
Value of cottonseed .....	.072 - .072	.081 - .081	.076 - .076	.091 - .091	.081 - .081
Costs per pound of lint .....	.498 - .631	.370 - .458	.344 - .469	.329 - .366	.361 - .453

<sup>1</sup> Includes herbicide, insecticide, and rodenticide materials not otherwise indicated water custom operations." <sup>2</sup> Includes custom application of crop chemicals, custom harvesting and hauling. <sup>3</sup> Includes drying, storage, and transportation.

Note: The costs shown do not include land and management charges which, depending upon the crop and region of the country, may account for one-fourth to three-fifths of all costs.

# CORN

Cost estimates for corn in 1974, 1975, and projections for 1976 are shown in tables 8, 9, and 10.<sup>7</sup> Specified cost levels per acre were consistently highest in the Southwest irrigated region and lowest in the Northern Plains. Yields were similarly highest in the Southwest.

As might be anticipated, costs per unit were lowest in the Lake States-Corn Belt region where

most of the corn is produced, and were highest in the region requiring the largest relative fertilizer and chemical input, the Southeast. Despite the low 1974 yields relative to 1973, the Lake States-Corn Belt region exhibited the lowest cost per bushel at \$1.41. Costs in 1975 decreased slightly to \$1.38 and will likely increase only slightly in 1976 to about \$1.40 per bushel in this region. Per bushel costs in the other regions exhibited pronounced increases in 1975 but may moderate in 1976 if yields are favorable.

<sup>7</sup>Regions identified for corn are defined as follows: Northeast—New York and Pennsylvania; Lake States-Corn Belt—Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin; Northern Plains—Kansas, Nebraska, South Dakota, and an adjacent area in Colorado;

Southeast—Alabama, Georgia, South Carolina, and adjacent areas in Kentucky, North Carolina, and Tennessee; and Southwest—California.

**Table 8—Corn: specified production costs, 1974**

	Northeast	Lake States and Corn Belt	Northern Plains	Southeast	Southwest	United States
	<i>Dollars</i>					
Cost per acre						
Variable						
Seed .....	6.24	6.59	6.26	5.93	10.54	6.48
Fertilizer .....	30.20	33.13	18.25	39.31	38.80	31.24
Lime .....	---	.84	.02	2.01	---	.80
Chemicals <sup>1</sup> .....	4.93	8.98	6.72	9.82	13.18	8.60
Custom operations <sup>2</sup> .....	12.70	9.29	7.59	9.37	7.18	9.09
All labor .....	18.49	7.29	8.29	7.09	23.95	7.78
Fuel and lubricants .....	8.96	4.61	8.56	4.81	6.90	5.40
Repairs .....	8.69	4.02	4.15	4.13	8.84	4.19
Miscellaneous expenses <sup>3</sup> .....	---	---	---	---	5.11	.02
Interest .....	2.47	2.96	2.08	3.08	4.58	2.82
Total variable cost .....	92.68	77.71	61.92	85.55	119.08	76.42
Machinery ownership cost						
Replacement .....	18.48	10.09	13.37	9.90	13.09	10.83
Interest .....	9.89	5.16	6.73	5.24	7.69	5.56
Taxes and Insurance .....	2.33	1.22	2.54	1.25	1.78	1.47
Total ownership cost .....	30.70	16.47	22.64	16.29	22.56	17.86
General farm overhead .....	8.00	7.72	7.37	6.65	13.18	7.66
Grand total .....	131.38	101.90	91.93	108.59	154.82	101.94
	<i>Bushels</i>					
Yield per acre .....	78.88	72.10	60.57	63.60	106.00	69.62
	<i>Dollars</i>					
Costs per bushel						
Variable .....	1.18	1.08	1.02	1.35	1.13	1.10
Machinery ownership .....	.39	.23	.38	.26	.21	.25
General farm overhead .....	.10	.10	.12	.10	.12	.11
Total of above .....	1.67	1.41	1.42	1.71	1.46	1.46
	<i>Percent</i>					
Percent of U.S. production .....	2.70	69.00	13.70	8.90	0.60	94.70

See footnotes at end of table 10.



**Table 9—Corn: specified production costs, 1975**

	Northeast	Lake States and Corn Belt	Northern Plains	Southeast	Southwest	United States
	<i>Dollars</i>					
Cost per acre						
Variable						
Seed .....	8.22	9.52	9.00	8.33	13.04	9.29
Fertilizer .....	47.00	46.65	25.64	52.87	45.71	43.81
Lime .....	---	.84	.02	2.01	---	.80
Chemicals <sup>1</sup> .....	5.73	10.43	7.80	11.41	15.30	9.98
Custom operations <sup>2</sup> .....	14.25	7.27	8.52	10.17	8.98	7.95
All labor .....	20.36	8.52	9.12	7.81	26.40	8.91
Fuel and lubricants .....	9.64	5.33	9.19	5.33	8.41	6.08
Repairs .....	10.77	5.35	5.14	5.12	10.96	5.45
Miscellaneous expenses .....	---	---	---	---	<sup>3</sup> 6.29	.02
Interest .....	3.26	3.75	2.63	3.78	5.10	3.56
Total variable cost .....	119.23	97.66	77.06	106.83	140.19	95.85
Machinery ownership cost						
Replacement .....	22.92	14.01	16.55	12.27	16.23	14.48
Interest .....	10.33	5.96	7.51	5.41	7.81	6.28
Taxes and insurance .....	2.49	1.46	2.94	1.35	1.91	1.73
Total ownership cost .....	35.74	21.43	27.00	19.03	25.95	22.49
General farm overhead .....	8.92	8.61	8.21	7.41	14.69	8.54
Grand total .....	163.89	127.70	112.27	133.27	180.83	126.88
	<i>Bushels</i>					
Yield per acre .....	80.13	92.25	73.58	62.13	96.00	85.78
	<i>Dollars</i>					
Costs per bushel						
Variable .....	1.49	1.06	1.05	1.72	1.46	1.12
Machinery ownership .....	.45	.23	.37	.31	.27	.26
General farm overhead .....	.11	.09	.11	.12	.15	.10
Total of above .....	2.05	1.38	1.53	2.15	1.88	1.48

See footnotes at end of table 10.

**Table 10—Corn: specified production costs, 1976**

	Northeast	Lake States and Corn Belt	Northern Regions	Southeast	Southwest	United States
	<i>Dollars</i>					
<b>Cost per acre</b>						
<b>Variable</b>						
Seed .....	8.22	9.52	9.00	8.33	13.04	9.29
Fertilizer .....	43.86	43.50	23.95	49.34	42.68	40.86
Lime and gypsum .....	---	.84	.02	2.01	---	.80
Chemicals <sup>1</sup> .....	6.21	11.30	8.46	12.37	16.59	10.82
Custom operations <sup>2</sup> .....	15.28	11.24	10.31	11.43	10.10	11.20
All labor .....	22.25	9.75	9.98	8.55	28.85	10.05
Fuel and lubricants .....	10.46	6.11	9.96	5.79	9.12	6.84
Repairs .....	11.90	6.24	5.68	5.65	12.11	6.25
Miscellaneous expenses .....	---	---	---	---	<sup>3</sup> 6.99	.03
Interest .....	3.14	3.57	2.56	3.59	5.03	3.40
<b>Total variable cost .....</b>	<b>121.32</b>	<b>102.07</b>	<b>79.93</b>	<b>107.06</b>	<b>144.51</b>	<b>99.54</b>
<b>Machinery ownership cost</b>						
Replacement .....	25.32	16.70	18.32	13.56	17.93	16.86
Interest .....	10.60	6.58	7.92	5.55	8.01	6.80
Taxes and Insurance .....	2.66	1.68	3.22	1.43	2.04	1.93
<b>Total ownership cost .....</b>	<b>38.58</b>	<b>24.96</b>	<b>29.46</b>	<b>20.54</b>	<b>27.98</b>	<b>25.59</b>
<b>General farm overhead .....</b>	<b>9.52</b>	<b>9.20</b>	<b>8.77</b>	<b>7.92</b>	<b>15.69</b>	<b>9.12</b>
<b>Grand total .....</b>	<b>169.42</b>	<b>136.23</b>	<b>118.16</b>	<b>135.52</b>	<b>188.18</b>	<b>134.25</b>
	<i>Bushels</i>					
<b>Yield per acre .....</b>	<b>77.7 - 87.7</b>	<b>92.6 - 102.6</b>	<b>77.8 - 87.8</b>	<b>58.1 - 68.1</b>	<b>93.0 - 103.0</b>	<b>86.3 - 96.2</b>
	<i>Dollars</i>					
<b>Costs per bushel</b>						
Variable .....	1.38 - 1.56	1.00 - 1.10	.91 - 1.03	1.57 - 1.84	1.41 - 1.55	1.03 - 1.15
Machinery ownership .....	.44 - .50	.24 - .27	.34 - .38	.30 - .35	.27 - .30	.27 - .30
General farm overhead .....	.11 - .12	.09 - .10	.10 - .11	.12 - .14	.15 - .17	.10 - .11
<b>Total of above .....</b>	<b>1.93 - 2.18</b>	<b>1.33 - 1.47</b>	<b>1.35 - 1.52</b>	<b>1.99 - 2.33</b>	<b>1.83 - 2.02</b>	<b>1.40 - 1.56</b>

<sup>1</sup> Includes herbicide, insecticide, and rodenticide materials not otherwise included under custom operations. <sup>2</sup> Includes custom application of crop chemicals, custom harvesting and hauling, corn shelling and all grain drying. <sup>3</sup> Irrigation water.

Note: The costs shown do not include land and management charges which, depending upon the crop and region, may account for one-fourth to three-fifths of all costs.

# GRAIN SORGHUM

Specified costs per acre, yields, and per bushel costs were lowest in the Northern Plains and highest in the Southwest.<sup>8</sup> (See tables 11-13.) But in the Southern Plains where the majority of grain sorghum is produced, costs were slightly higher than in the Northern Plains and yields were significantly higher because of a larger percentage of

irrigated production. The high yields and per acre costs in the Southwest reflected production that is almost completely irrigated. Costs per bushel in the Northern Plains reflected the smallest increase between 1974 and 1975, rising only from \$1.48 to \$1.50 per bushel. In 1976, per bushel costs in this region could decline to approximately \$1.35 per bushel if yields rise as projected. In contrast, per unit costs for both the Southern Plains and the Southwest increased substantially in 1975 and may remain fairly constant in 1976. Since yields in 1976 are projected to rise slightly, average costs per bushel for the United States exhibit only a 7-percent increase between 1974 and 1976.

<sup>8</sup>Regions for the production of grain sorghum are defined as follows: Northern Plains—Kansas, Nebraska, South Dakota, and adjacent areas in Colorado and Missouri; Southern Plains—Oklahoma and Texas plus adjacent areas in Arkansas and New Mexico; and the Southwest—Arizona and California.

**Table 11—Grain sorghum: specified production costs, 1974**

	Northern Plains	Southern Plains	Southwest	United States
	<i>Dollars</i>			
Cost per acre				
Variable				
Seed .....	1.70	1.69	3.65	1.75
Fertilizer .....	14.22	11.84	26.80	13.29
Lime .....	.02	---	---	.01
Chemicals <sup>1</sup> .....	3.29	2.47	8.86	3.00
Custom operations <sup>2</sup> .....	3.97	5.00	8.61	4.66
All labor .....	5.42	7.76	22.43	7.15
Fuel and lubricants .....	3.70	6.47	7.06	5.28
Repairs .....	2.46	4.34	7.09	3.60
Miscellaneous expenses .....	---	---	<sup>3</sup> 5.62	.16
Interest .....	1.18	1.32	3.29	1.32
Total variable cost .....	35.96	40.89	93.41	40.22
Machinery ownership cost				
Replacement .....	7.72	13.11	11.39	10.72
Interest .....	3.91	6.62	6.67	5.44
Taxes and insurance .....	1.09	2.14	1.54	1.66
Total ownership cost .....	12.72	21.87	19.60	17.82
General farm overhead .....	4.98	4.90	8.69	5.03
Grand total .....	53.66	67.66	121.70	63.07
	<i>Bushels</i>			
Yield per acre .....	36.20	47.21	69.16	43.05
	<i>Dollars</i>			
Costs per bushel				
Variable .....	.99	.87	1.35	.93
Machinery ownership .....	.35	.46	.28	.41
General farm overhead .....	.14	.10	.13	.12
Total of above .....	1.48	1.43	1.76	1.46
	<i>Percent</i>			
Percent of U.S. production .....	34.5	55.8	4.2	94.5

See footnotes at end of table 35.

Table 12—Grain sorghum: specified production costs, 1975

	Northern Plains	Southern Plains	Southwest	United States
	<i>Dollars</i>			
<b>Cost per acre</b>				
<b>Variable</b>				
Seed .....	2.72	3.23	7.23	3.12
Fertilizer .....	20.15	15.86	32.85	18.20
Lime .....	.02	.0	---	.01
Chemicals <sup>1</sup> .....	3.82	2.86	10.28	3.49
Custom operations <sup>2</sup> .....	4.18	6.04	10.37	5.36
All labor .....	5.99	8.69	24.72	7.97
Fuel and lubricants .....	4.04	7.18	8.29	5.85
Repairs .....	3.07	5.51	8.79	4.54
Miscellaneous expenses .....	---	---	<sup>3</sup> 6.92	.19
Interest .....	1.47	1.60	3.81	1.60
Total variable cost .....	45.46	50.97	113.26	50.33
<b>Machinery ownership cost</b>				
Replacement .....	9.67	16.78	14.13	13.62
Interest .....	4.19	7.38	6.77	5.98
Taxes and Insurance .....	1.21	2.50	1.65	1.91
Total ownership cost .....	15.07	26.66	22.55	21.51
General farm overhead .....	5.55	5.46	9.69	5.61
<b>Grand total</b> .....	66.08	83.09	145.50	77.45
	<i>Bushels</i>			
Yield per acre .....	44.19	53.34	71.24	49.87
	<i>Dollars</i>			
<b>Costs per bushel</b>				
Variable .....	1.03	.96	1.59	1.01
Machinery ownership .....	.34	.50	.32	.43
General farm overhead .....	.13	.10	.13	.11
Total of above .....	1.50	1.56	2.04	1.55

See footnotes at end of table 35.

Table 13—Grain sorghum: specified production costs, 1976

	Northern Plains	Southern Plains	Southwest	United States
	<i>Dollars</i>			
<b>Cost per acre</b>				
<b>Variable</b>				
Seed .....	2.72	3.22	7.23	3.12
Fertilizer .....	18.93	14.80	30.66	17.04
Lime .....	.02	---	---	.01
Chemicals <sup>1</sup> .....	4.14	3.10	11.15	3.78
Custom operations <sup>2</sup> .....	5.96	6.74	11.54	6.54
All labor .....	6.56	9.51	27.01	8.72
Fuel and lubricants .....	4.39	7.80	8.99	6.35
Repairs .....	3.40	6.10	9.71	5.03
Miscellaneous expenses .....	---	---	<sup>3</sup> 7.70	.22
Interest .....	1.43	1.57	3.79	1.57
Total variable cost .....	47.55	52.84	117.78	52.38
<b>Machinery ownership cost</b>				
Replacement .....	10.72	18.60	15.61	15.10
Interest .....	4.35	7.75	6.94	6.25
Taxes and insurance .....	1.31	2.71	1.76	2.08
Total ownership cost .....	16.38	28.06	24.31	23.43
<b>General farm overhead</b> .....	5.93	5.84	10.35	5.99
<b>Grand total</b> .....	69.86	86.74	152.44	81.80
	<i>Bushels</i>			
<b>Yield per acre</b> .....	48.5 - 56.1	50.1 - 57.7	69.5 - 77.1	48.9 - 56.5
	<i>Dollars</i>			
<b>Costs per bushel</b>				
Variable .....	.85 - .98	.92 - 1.05	1.53 - 1.69	.93 - 1.07
Machinery ownership .....	.29 - .34	.48 - .56	.32 - .35	.41 - .48
General farm overhead .....	.11 - .12	.10 - .12	.13 - .15	.11 - .12
Total of above .....	1.25 - 1.44	1.50 - 1.73	1.98 - 2.19	1.45 - 1.67

See footnotes at end of table 35.

# BARLEY

Estimates of barley production costs for 1974, 1975, and projections for 1976 are shown in tables 14, 15, and 16.<sup>9</sup> Although barley production is concentrated in the Northern Plains, estimated per

bushel costs are lowest in the Northwest. Specified costs per acre were consistently highest in the Northeast but yields there were also considerably above the U.S. average.

Cost estimates per bushel for 1974 ranged from \$1.26 in the Northwest to \$1.67 per bushel in the Northern Plains. Yields in the Northern Plains were particularly disappointing in 1974. National average costs per bushel declined in 1975. With the alternative yield levels projected, per bushel cost in 1976 may increase slightly in all regions except the Northeast where costs per bushel could decline.

<sup>9</sup>States included in the regional estimates are: Northeast—Pennsylvania; Northern Plains—Montana, North Dakota, South Dakota, and Wyoming; Southern Plains—Colorado and Oklahoma; Southwest—Arizona and California; and Northwest—Idaho, Oregon, and Washington.

**Table 14—Barley: specified production costs, 1974**

	Northeast	Northern Plains	Southern Plains	Southwest	Northwest	United States
<i>Dollars</i>						
Cost per acre						
Variable						
Seed .....	5.65	4.15	4.40	7.91	6.36	5.06
Fertilizer .....	12.06	7.24	8.90	8.44	10.06	8.03
Chemicals <sup>1</sup> .....	.09	1.32	.90	1.07	1.23	1.23
Custom operations <sup>2</sup> .....	1.79	1.26	3.13	7.28	1.94	2.32
All labor .....	10.67	5.16	7.41	8.25	5.62	5.90
Fuel and lubricants .....	6.39	4.04	5.82	3.58	4.87	4.24
Repairs .....	5.43	3.34	3.41	4.01	4.47	3.66
Miscellaneous expenses .....	--	.11	--	<sup>3</sup> 1.01	--	.22
Interest .....	2.35	.72	1.17	1.88	.88	.96
Total variable cost .....	44.43	27.34	35.14	43.43	35.43	31.62
Machinery ownership cost						
Replacement .....	9.89	9.04	7.84	6.25	7.47	8.37
Interest .....	5.05	4.72	5.22	3.53	4.96	4.62
Taxes and insurance .....	1.18	1.12	1.16	.82	1.10	1.08
Total ownership cost .....	16.12	14.89	14.22	10.60	13.53	14.07
General farm overhead .....	6.28	4.17	4.21	8.38	5.30	4.84
Grand total .....	66.83	46.40	53.57	62.41	54.26	50.53
<i>Bushels</i>						
Yield per acre .....	51.10	27.75	34.48	46.26	43.16	33.56
<i>Dollars</i>						
Costs per bushel						
Variable .....	.87	.98	1.02	.94	.83	.94
Machinery ownership .....	.32	.54	.41	.23	.31	.42
General farm overhead .....	.12	.15	.12	.18	.12	.14
Total of above .....	1.31	1.67	1.55	1.35	1.26	1.50
<i>Percent</i>						
Percent of U.S. production .....	2.80	45.70	4.50	17.10	16.90	87.00

See footnotes at end of table 35.

Table 15—Barley: specified production costs, 1975

	Northeast	Northern Plains	Southern Plains	Southwest	Northwest	United States
	<i>Dollars</i>					
Cost per acre						
Variable						
Seed .....	6.55	5.20	3.45	7.24	5.59	5.48
Fertilizer .....	22.05	10.26	10.43	10.11	13.51	10.99
Chemicals <sup>1</sup> .....	.11	1.54	1.05	1.25	1.43	1.43
Custom operations <sup>2</sup> .....	2.15	1.52	3.78	8.72	2.34	2.80
All labor .....	11.75	5.70	8.16	9.09	6.18	6.51
Fuel and lubricants .....	7.02	4.34	6.26	4.30	5.31	4.63
Repairs .....	6.74	4.15	4.22	4.97	5.53	4.54
Miscellaneous expenses .....	--	.12	--	<sup>3</sup> 1.25	--	.25
Interest .....	3.20	.87	1.26	1.99	.98	1.11
Total variable cost .....	59.57	33.70	38.61	48.92	40.87	37.74
Machinery ownership cost						
Replacement .....	12.26	11.24	9.68	7.75	9.26	10.39
Interest .....	5.18	5.02	5.74	3.59	5.53	4.93
Taxes and insurance .....	1.26	1.22	1.29	.88	1.25	1.18
Total ownership cost .....	18.70	17.48	16.71	12.22	16.04	16.50
General farm overhead .....	7.00	4.65	4.70	9.34	5.91	5.40
Grand total .....	85.27	55.83	60.02	70.48	62.82	59.64
	<i>Bushels</i>					
Yield per acre .....	47.0	37.25	38.73	49.20	48.07	40.72
	<i>Dollars</i>					
Costs per bushel						
Variable .....	1.26	.90	1.00	.99	.86	.93
Machinery ownership .....	.40	.47	.43	.25	.33	.41
General farm overhead .....	.15	.13	.12	.19	.12	.13
Total of above .....	1.81	1.50	1.55	1.43	1.31	1.47

See footnotes at end of table 35.

Table 16—Barley: specified production costs, 1976

	Northeast	Northern Plains	Southern Plains	Southwest	Northwest	United States
	<i>Dollars</i>					
Cost per acre						
Variable						
Seed .....	6.55	5.18	3.44	7.24	5.58	5.48
Fertilizer .....	20.57	9.56	9.74	9.44	12.60	10.25
Lime .....	---	---	---	---	---	---
Chemicals <sup>1</sup> .....	.11	1.67	1.14	1.35	1.55	1.55
Custom operations <sup>2</sup> .....	2.40	1.69	4.21	9.68	2.61	3.11
All labor .....	12.83	6.25	8.91	9.93	6.77	7.12
Fuel and lubricants .....	7.61	4.72	6.80	4.67	5.75	5.03
Repairs .....	7.44	4.59	4.67	5.49	6.12	5.02
Miscellaneous expenses .....	---	.11	---	<sup>3</sup> 1.39	---	.27
Interest .....	3.04	.85	1.25	1.97	.96	1.10
Total variable cost .....	60.55	34.62	40.16	51.16	41.94	38.93
Machinery ownership cost						
Replacement .....	13.54	12.45	10.75	8.56	10.24	11.50
Interest .....	5.31	5.19	6.06	3.68	5.88	5.13
Taxes and insurance .....	1.34	1.30	1.39	.93	1.35	1.27
Total ownership cost .....	20.19	18.94	18.20	13.17	17.47	17.90
General farm overhead .....	7.48	5.54	5.01	9.98	6.31	5.76
Grand total .....	88.22	59.10	63.37	74.31	65.72	62.59
	<i>Bushels</i>					
Yield per acre .....	49.1 - 52.8	36.1 - 39.8	37.7 - 41.4	46.0 - 49.7	42.2 - 45.9	38.8 - 42.5
	<i>Dollars</i>					
Costs per bushel						
Variable .....	1.15 - 1.24	.87 - .96	.97 - 1.07	1.03 - 1.11	.91 - .99	.91 - 1.00
Machinery ownership .....	.38 - .41	.47 - .52	.44 - .48	.27 - .29	.38 - .41	.42 - .46
General farm overhead .....	.14 - .15	.14 - .15	.12 - .13	.20 - .22	.14 - .15	.14 - .15
Total of above .....	1.67 - 1.80	1.48 - 1.63	1.53 - 1.68	1.50 - 1.62	1.43 - 1.55	1.47 - 1.61

See footnotes at end of table 35.



# OATS

National average costs per acre for oats rose approximately 27 percent between 1974 and 1976 (tables 17-19).<sup>10</sup> At the same time, costs per bushel rose only about 10 percent because of realized and

projected yield increases. Per bushel costs in the Northern Plains showed a steady decline, offsetting part of the slight increase in the Lake States-Corn Belt and substantial increase in the Northeast.

<sup>10</sup>Regions identified for production are as follows: Northeast—New York and Pennsylvania; Lake States-Corn Belt—Illinois, Indiana, Iowa, Michigan, Minnesota,

Ohio, and Wisconsin; and Northern Plains—Montana, Nebraska, North Dakota, and South Dakota.

**Table 17—Oats: specified production costs, 1974**

	Northeast	Lake States and Corn Belt	Northern Plains	United States
	<i>Dollars</i>			
<b>Cost per acre</b>				
<b>Variable</b>				
Seed .....	5.52	4.50	3.54	4.19
Fertilizer .....	16.39	6.19	4.27	6.06
Lime .....	---	1.09	---	.59
Chemicals <sup>1</sup> .....	.38	.28	.29	.29
Custom operations <sup>2</sup> .....	4.41	1.01	.78	1.12
All labor .....	10.68	6.10	3.64	5.41
Fuel and lubricants .....	5.98	3.81	2.51	3.43
Repairs .....	4.71	3.20	2.59	3.05
Miscellaneous expenses .....	---	---	.23	.09
Interest .....	1.23	.63	.41	.58
<b>Total variable cost .....</b>	<b>49.30</b>	<b>26.81</b>	<b>18.26</b>	<b>24.81</b>
<b>Machinery ownership cost</b>				
Replacement .....	9.08	7.88	6.02	7.22
Interest .....	4.51	3.96	2.96	3.60
Taxes and insurance .....	1.08	.95	.71	.86
<b>Total ownership cost .....</b>	<b>14.67</b>	<b>12.79</b>	<b>9.69</b>	<b>11.68</b>
General farm overhead .....	5.02	4.45	2.57	3.62
<b>Grand total .....</b>	<b>68.99</b>	<b>44.05</b>	<b>30.52</b>	<b>40.11</b>
	<i>Bushels</i>			
Yield per acre .....	51.13	48.96	29.64	41.50
	<i>Dollars</i>			
<b>Costs per bushel</b>				
Variable .....	.96	.55	.61	.60
Machinery ownership .....	.29	.26	.33	.28
General farm overhead .....	.10	.09	.09	.09
<b>Total of above .....</b>	<b>1.35</b>	<b>.90</b>	<b>1.03</b>	<b>.97</b>
	<i>Percent</i>			
Percent of U.S. production .....	6.7	57.1	24.9	88.6

See footnotes at end of table 35.

**Table 18—Oats: specified production costs, 1975**

	Northeast	Lake States and Corn Belt	Northern Plains	United States
	<i>Dollars</i>			
<b>Cost per acre</b>				
<b>Variable</b>				
Seed .....	6.17	5.16	4.37	4.91
Fertilizer .....	25.02	8.65	5.98	8.60
Lime .....	---	1.09	---	.59
Chemicals <sup>1</sup> .....	.44	.33	.34	.34
Custom operations <sup>2</sup> .....	5.32	1.21	.94	1.36
All labor .....	11.76	6.80	4.01	6.01
Fuel and lubricants .....	6.49	4.19	2.71	3.75
Repairs .....	5.84	4.03	3.22	3.82
Miscellaneous expenses .....	---	---	.23	.09
Interest .....	1.54	.76	.49	.70
<b>Total variable cost .....</b>	<b>62.58</b>	<b>32.22</b>	<b>22.29</b>	<b>30.17</b>
<b>Machinery ownership cost</b>				
Replacement .....	11.25	10.08	7.47	9.12
Interest .....	4.78	4.27	3.14	3.86
Taxes and insurance .....	1.16	1.04	.77	.94
<b>Total ownership cost .....</b>	<b>17.19</b>	<b>15.39</b>	<b>11.38</b>	<b>13.92</b>
General farm overhead .....	5.60	4.96	2.87	4.04
<b>Grand total .....</b>	<b>85.37</b>	<b>52.57</b>	<b>36.54</b>	<b>48.13</b>
	<i>Bushels</i>			
Yield per acre .....	48.89	48.96	37.25	44.35
	<i>Dollars</i>			
<b>Costs per bushel</b>				
Variable .....	1.28	.66	.60	.68
Machinery ownership .....	.35	.31	.30	.31
General farm overhead .....	.11	.10	.08	.09
<b>Total of above .....</b>	<b>1.74</b>	<b>1.07</b>	<b>.98</b>	<b>1.08</b>

See footnotes at end of table 35.

Table 19—Oats: specified production costs, 1976

	Northeast	Lake States and Corn Belt	Northern Plains	United States
	<i>Dollars</i>			
Cost per acre				
Variable				
Seed .....	6.18	5.16	4.37	4.91
Fertilizer .....	23.34	8.07	5.58	8.03
Lime .....	---	1.09	---	.60
Chemicals <sup>1</sup> .....	.48	.36	.37	.37
Custom operations <sup>2</sup> .....	5.93	1.35	1.04	1.51
All labor .....	12.86	7.54	4.38	6.62
Fuel and lubricants .....	7.04	4.63	2.94	4.11
Repairs .....	6.45	4.52	3.55	4.26
Miscellaneous expenses .....	---	---	.23	.09
Interest .....	1.51	.75	.48	.69
Total variable cost .....	63.79	33.47	22.94	31.19
Machinery ownership cost				
Replacement .....	12.43	11.41	8.25	10.23
Interest .....	4.90	4.49	3.22	4.02
Taxes and insurance .....	1.24	1.15	.82	1.03
Total ownership cost .....	18.57	17.05	12.29	15.28
General farm overhead .....	5.98	5.30	3.06	4.31
Grand total .....	88.34	55.82	38.29	50.78
	<i>Bushels</i>			
Yield per acre .....	46.8 - 54.1	47.5 - 54.8	38.7 - 46.0	44.0 - 51.3
	<i>Dollars</i>			
Costs per bushel				
Variable .....	1.18 - 1.36	.61 - .70	.50 - .59	.61 - .70
Machinery ownership .....	.34 - .40	.31 - .36	.27 - .32	.30 - .35
General farm overhead .....	.11 - .13	.10 - .11	.06 - .08	.08 - .10
Total of above .....	1.63 - 1.89	1.02 - 1.17	.83 - .99	.99 - 1.15

See footnotes at end of table 35.

## WHEAT

Results for durum, other spring, and white wheats are in tables 20-22. Results for soft winter and hard winter wheat are in tables 23-28. A single total for all wheat is included in tables 26, 27, and 28.

Production of durum wheat is found in North and South Dakota, Minnesota, and Montana. In 1974, yields of 19.8 bushels per harvested acre, compared with 27.2 bushels in 1973, resulted in costs per bushel of \$2.71. Normal yields in 1974 would have resulted in a cost of less than \$2.00 per bushel. With significant increases in yields in 1975 and projected increases for 1976, per bushel costs exhibit a steady decline through 1976 despite steadily increasing costs per acre.

Other spring wheat is grown in the same general areas as is durum wheat, and the yields and costs specified in this study follow similar trends as for durum wheat. Per bushel costs are less than for durum wheat, however.

White wheat is raised primarily in Idaho, Oregon, and Washington. Yields are relatively high and costs per bushel low. Though costs per acre increased at about the same rate as yields between 1974 and 1975, the yield level is projected to decline in 1976, resulting in an increase in costs per bushel to about \$1.61.

Soft winter wheat is raised primarily in the eastern half of the United States with the Lake States-Corn Belt being the major production region. Differences in per acre costs among regions in tables 23-25 can be explained by the higher rates of fertilization in the Southeast.<sup>11</sup> These producers apply \$5 to \$6 more fertilizer per acre but do not obtain yields comparable to the Lake States-Corn Belt region. Hence, per bushel costs are lowest in the Lake States-Corn Belt and highest in the Southeast.

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<sup>11</sup>States included in regional identifications are: Northeast—New York and Pennsylvania; Lake States-Corn Belt—Illinois, Indiana, Michigan, Missouri, and Ohio; and Southeast—Kentucky, North Carolina, and Tennessee.

Costs per bushel rose sharply in 1975 in the Northeast and Southeast where yields were lower than in 1974. For 1976, costs per bushel are anticipated to remain stable or drop slightly, with the U.S. average in the range of \$1.92-\$2.14 per bushel.

Hard winter wheat is grown throughout the Great Plains from Montana to Texas and in Arizona and California.<sup>12</sup> Pasturing hard winter wheat is a common practice in the Southern Plains and in the southern part of the Central Plains. In estimating the value of wheat pasture, a variety of data sources was used. Unpublished data available from previous ERS studies, State extension publications, and personal interviews were used to estimate the percentage of wheat pastured, the average number of animal unit months (AUMs) of grazing in each area, and the average values for grazing per AUM. A value of \$10 per AUM was used in all areas. From these estimates, a value of wheat grazing "per bushel" was computed.

Specified costs per acre are approximately equivalent for the three Plains areas. Acre costs in the Southwest are considerable higher, reflecting a higher proportion of irrigation. Costs per bushel are consistently lower in the Northern Plains, while yields are consistently highest in the irrigated Southwest. U.S. average costs per bushel of hard winter wheat are projected to increase a modest 7 percent between 1974 and 1976.

Costs for all wheat (tables 26-28, last column) follow cost patterns similar to the winter wheat totals. Per bushel costs increased slightly in 1975 and are expected to remain stable in 1976, while acre costs increased sharply in 1975 but will likely level off in 1976.

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<sup>12</sup>Regional estimates of hard winter wheat costs are presented for the Central Plains, defined as Colorado, Kansas, Nebraska, and South Dakota; the Southern Plains, defined as New Mexico, Oklahoma, and Texas; the Northern Plains, defined as Idaho, Montana, and Wyoming; and the Southwest, defined as Arizona and California.

Table 20—Durum, spring wheat and white wheats: specified production costs, 1974

	All Regions Durum	All Regions Spring Wheat	All Regions White Wheat
	<i>Dollars</i>		
Cost per acre			
Variable			
Seed .....	11.26	7.89	6.87
Fertilizer .....	4.54	7.53	10.27
Lime .....	--	--	--
Chemicals <sup>1</sup> .....	1.63	1.61	2.43
Custom operations <sup>2</sup> .....	1.72	1.96	2.03
All labor .....	5.65	5.05	5.04
Fuel and lubricants .....	3.98	3.51	3.36
Repairs .....	3.43	3.21	3.60
Miscellaneous expenses .....	.10	--	--
Interest .....	1.21	1.00	2.06
Total variable cost .....	33.52	31.76	35.66
Machinery ownership cost			
Replacement .....	8.80	7.86	6.86
Interest .....	4.47	3.96	3.62
Taxes and insurance .....	1.07	.95	.85
Total ownership cost .....	14.34	12.77	11.33
General farm overhead .....	4.77	4.51	5.68
Grand total .....	52.63	49.04	52.67
	<i>Bushels</i>		
Yield per acre .....	19.43	20.67	36.61
	<i>Dollars</i>		
Costs per bushel			
Variable .....	1.72	1.54	.97
Machinery ownership .....	.74	.62	.31
General farm overhead .....	.25	.21	.16
Total of above .....	2.71	2.37	1.44
	<i>Percent</i>		
Percent of U.S. production .....	99.3	85.6	59.5

See footnotes at end of table 35.

**Table 21—Durum, spring wheat and white wheats: specified production costs, 1975**

	All Regions Durum	All Regions Spring Wheat	All Regions White Wheat
	<i>Dollars</i>		
Cost per acre			
Variable			
Seed .....	10.80	7.74	6.32
Fertilizer .....	6.73	10.64	13.68
Lime .....	--	--	--
Chemicals <sup>1</sup> .....	1.89	1.87	2.82
Custom operations <sup>2</sup> .....	2.07	2.37	2.44
All labor .....	6.23	5.56	5.55
Fuel and lubricants .....	4.29	3.76	3.69
Repairs .....	4.25	3.98	4.46
Miscellaneous expenses .....	.09	--	--
Interest .....	1.33	1.13	2.32
Total variable costs .....	37.68	37.05	41.28
Machinery ownership cost			
Replacement .....	10.93	9.75	8.51
Interest .....	4.70	4.16	3.80
Taxes and insurance .....	1.15	1.01	.92
Total ownership cost .....	16.78	14.92	13.23
General farm overhead .....	5.32	5.03	6.33
Grand total .....	59.78	57.00	60.84
	<i>Bushels</i>		
Yield per acre .....	26.59	25.68	43.00
	<i>Dollars</i>		
Costs per bushel			
Variable .....	1.42	1.44	.96
Machinery ownership .....	.63	.58	.31
General farm overhead .....	.20	.20	.15
Total of above .....	2.25	2.22	1.42

See footnotes at end of table 35.

Table 22—Durum, spring wheat and white wheat: specified production costs, 1976

	All Regions Duram	All Regions Spring Wheat	All Regions White Wheat
	<i>Dollars</i>		
Cost per acre			
Variable			
Seed .....	10.80	7.74	6.32
Fertilizer .....	6.27	9.92	12.76
Lime .....	--	--	--
Chemicals <sup>1</sup> .....	2.05	2.03	3.06
Customs operations <sup>2</sup> .....	2.31	2.64	2.72
All labor .....	6.81	6.09	6.07
Fuel and lubricants .....	4.66	4.08	4.01
Repairs .....	4.70	4.40	4.93
Interest .....	1.33	1.13	2.23
Total variable cost .....	39.02	38.03	42.10
Machinery ownership cost			
Replacement .....	12.09	10.79	9.40
Interest .....	4.82	4.27	3.92
Taxes and insurance .....	1.22	1.08	.98
Total ownership cost .....	18.13	16.14	14.30
General farm overhead .....	5.68	5.27	6.76
Grand total .....	62.83	59.54	63.16
	<i>Bushels</i>		
Yield per acre .....	27.3 - 31.1	26.1 - 29.9	37.3 - 41.1
	<i>Dollars</i>		
Costs per bushel			
Variable .....	1.24 - 1.43	1.27 - 1.45	1.03 - 1.13
Machinery ownership .....	.58 - .66	.54 - .62	.35 - .38
General farm overhead .....	.18 - .21	.18 - .21	.16 - .18
Total of above .....	2.02 - 2.30	1.99 - 2.28	1.54 - 1.69

See footnotes at end of table 35.

Table 23—Soft winter wheat: specified production costs, 1974

	Northeast	Lake States and Corn Belt	Southeast	United States
	<i>Dollars</i>			
Cost per acre				
Variable				
Seed .....	13.64	12.58	12.32	12.61
Fertilizer .....	17.26	16.55	22.72	17.40
Lime .....	---	.62	2.80	.86
Chemicals <sup>1</sup> .....	.04	.30	.32	.28
Custom operations <sup>2</sup> .....	4.63	1.40	2.15	1.70
All labor .....	9.71	4.98	4.38	5.21
Fuel and lubricants .....	5.63	3.29	3.09	3.41
Repairs .....	4.31	2.68	3.10	2.84
Miscellaneous expenses .....	---	.00	---	.00
Interest .....	2.81	2.85	2.84	2.85
Total variable cost .....	58.03	45.25	53.72	47.16
Machinery ownership cost				
Replacement .....	8.84	6.39	7.24	6.66
Interest .....	4.43	3.29	3.68	3.41
Taxes and insurance .....	1.06	.77	.87	.79
Total ownership cost .....	14.33	10.45	11.79	10.86
General farm overhead .....	5.16	4.79	3.81	4.53
Grand total .....	77.52	60.49	69.42	62.55
	<i>Bushels</i>			
Yield per acre .....	36.21	33.56	27.24	32.91
	<i>Dollars</i>			
Costs per bushel				
Variable .....	1.60	1.35	1.97	1.43
Machinery ownership .....	.40	.31	.43	.33
General farm overhead .....	.14	.14	.14	.14
Total of above .....	2.14	1.80	2.54	1.90
	<i>Percent</i>			
Percent of U.S. production .....	7.2	80.7	11.1	99.0

See footnotes at end of table 35.



Table 24—Soft winter wheat: specified production costs, 1975

	Northeast	Lake States and Corn Belt	Southeast	United States
	<i>Dollars</i>			
Cost per acre				
Variable				
Seed .....	10.97	10.82	9.51	10.66
Fertilizer .....	26.89	23.24	31.13	24.50
Lime .....	---	.62	2.80	.86
Chemicals <sup>1</sup> .....	.04	.34	.37	.33
Custom operations <sup>2</sup> .....	5.59	1.67	2.57	2.04
All labor .....	10.69	5.68	4.83	5.89
Fuel and lubricants .....	6.13	3.72	3.44	3.84
Repairs .....	6.13	3.72	3.44	3.84
Miscellaneous expenses .....	---	.00	---	.00
Interest .....	3.31	3.13	3.12	3.14
Total variable cost .....	68.96	52.66	61.62	54.88
Machinery ownership cost				
Replacement .....	10.97	8.53	8.98	8.75
Interest .....	4.66	3.61	3.78	3.70
Taxes and insurance .....	1.14	.89	.94	.90
Total ownership cost .....	16.77	13.03	13.70	13.35
General farm overhead .....	5.75	5.34	4.25	5.05
Grand total .....	91.48	71.03	79.57	73.28
	<i>Bushels</i>			
Yield per acre .....	33.33	37.45	25.45	35.62
	<i>Dollars</i>			
Costs per bushel				
Variable .....	2.07	1.41	2.42	1.54
Machinery ownership .....	.50	.35	.54	.37
General farm overhead .....	.17	.14	.17	.14
Total of above .....	2.74	1.90	3.13	2.05

See footnotes at end of table 35.

Table 25—Soft winter wheat: specified production costs, 1976

	Northeast	Lake States and Corn Belt	Southeast	United States
	<i>Dollars</i>			
Cost per acre				
Variable				
Seed .....	10.97	10.82	9.51	10.66
Fertilizer .....	25.09	21.67	29.06	22.85
Lime .....	---	.62	2.80	.86
Chemicals <sup>1</sup> .....	.05	.37	.40	.36
Custom operations <sup>2</sup> .....	6.23	1.85	2.84	2.26
All labor .....	11.69	6.27	5.28	6.49
Fuel and lubricants .....	6.65	4.09	3.73	4.21
Repairs .....	5.90	3.85	4.25	4.03
Miscellaneous expenses .....	---	---	---	---
Interest .....	3.17	2.96	2.94	2.97
Total variable cost .....	69.75	52.50	60.81	54.69
Machinery ownership cost				
Replacement .....	12.12	9.60	9.92	9.80
Interest .....	4.78	3.77	3.88	3.85
Taxes and insurance .....	1.21	.96	1.00	.98
Total ownership cost .....	18.11	14.33	14.80	14.63
General farm overhead .....	6.15	5.70	4.54	5.40
Grand total .....	94.01	72.53	80.15	74.72
	<i>Bushels</i>			
Yield per acre .....	34.1 - 37.9	36.7 - 40.5	23.9 - 27.7	34.9 - 38.7
	<i>Dollars</i>			
Costs per bushel				
Variable .....	1.84 - 2.04	1.30 - 1.43	2.20 - 2.54	1.40 - 1.57
Machinery ownership .....	.48 - .53	.35 - .39	.53 - .62	.38 - .42
General farm overhead .....	.16 - .18	.14 - .16	.16 - .19	.14 - .15
Total of above .....	2.48 - 2.75	1.79 - 1.98	2.89 - 3.35	1.92 - 2.14

See footnotes at end of table 35.

Table 26—Hard winter wheat and all wheat: specified production costs, 1974

	Central Plains	Southern Plains	Northern Plains	Southwest	United States	All Wheat Total
	<i>Dollars</i>					
<b>Costs per acre</b>						
<b>Variable</b>						
Seed .....	4.74	5.07	4.46	11.79	5.04	7.13
Fertilizer .....	6.34	6.90	3.45	18.46	6.64	8.37
Lime .....	---	---	---	---	---	.12
Chemicals <sup>1</sup> .....	.36	.20	1.09	2.54	.43	.85
Custom operations <sup>2</sup> .....	3.93	3.17	2.99	9.82	3.74	2.88
All labor .....	4.72	3.94	4.31	10.32	4.57	4.85
Fuel and lubricants .....	3.07	3.23	2.96	4.33	3.15	3.32
Repairs .....	2.61	2.28	2.49	4.84	2.55	2.84
Miscellaneous expenses .....	---	---	---	1.56	.05	.03
Interest .....	1.40	1.25	1.26	2.48	1.37	1.53
Total variable costs .....	27.17	26.04	23.01	66.14	27.54	31.92
<b>Machinery ownership costs</b>						
Replacement .....	6.59	5.75	7.41	7.30	6.38	6.89
Interest .....	3.38	2.95	3.76	4.21	3.28	3.53
Taxes and insurance .....	.83	.87	.89	.97	.85	.87
Total ownership costs .....	10.80	9.57	12.06	12.48	10.51	11.29
General farm overhead .....	4.79	3.88	4.62	10.10	4.69	4.78
Grand total .....	42.76	39.49	39.69	88.72	42.74	47.99
	<i>Bushels</i>					
Yield per acre .....	27.07	14.67	26.98	51.11	23.28	24.65
	<i>Dollars</i>					
<b>Costs per bushel</b>						
Variable .....	1.00	1.78	.85	1.29	1.18	1.30
Machinery ownership .....	.40	.65	.45	.24	.45	.46
General farm overhead .....	.18	.26	.17	.20	.20	.19
Total of above .....	1.58	2.69	1.47	1.73	1.83	1.95
Value of wheat pasture .....	.06	.42	---	---	.13	.07
Cost per bushel .....	1.52	2.27	1.47	1.73	1.70	1.88
	<i>Percent</i>					
Percent of U.S. production .....	58.8	21.7	9.9	6.2	96.6	91.6

See footnotes at end of table 35.

**Table 27—Hard winter wheat and all wheat: specified production costs, 1975**

	Central Plains	Southern Plains	Northern Plains	Southwest	United States	All Wheat Total
	<i>Dollars</i>					
Cost per acre						
Variable						
Seed .....	4.16	4.68	4.69	12.01	4.62	6.55
Fertilizer .....	8.98	9.41	4.95	22.36	9.17	11.67
Lime .....	.00	---	---	---	.00	.12
Chemicals <sup>1</sup> .....	.42	.23	1.26	2.95	.50	.98
Custom operations <sup>2</sup> .....	4.74	3.82	3.60	11.67	4.51	3.47
All labor .....	5.20	4.53	4.75	11.37	5.10	5.40
Fuel and lubricants .....	3.32	3.72	3.19	5.13	3.51	3.67
Repairs .....	3.23	3.01	3.09	6.00	3.22	3.57
Miscellaneous expenses .....	---	---	---	1.92	.06	.04
Interest .....	1.59	1.40	1.43	2.72	1.54	1.71
Total variable cost .....	31.64	30.80	29.96	76.13	32.23	37.18
Machinery ownership cost						
Replacement .....	8.18	7.88	9.19	9.06	8.18	8.76
Interest .....	3.54	3.47	3.91	4.27	3.57	3.79
Taxes and insurance .....	.89	1.05	.96	1.04	.96	.98
Total ownership costs .....	12.61	12.40	14.06	14.37	12.71	13.53
General farm overhead .....	5.34	4.33	5.16	11.27	5.23	5.33
Grand total .....	49.58	47.53	46.18	101.77	50.17	56.04
	<i>Bushels</i>					
Yield per acre .....	26.78	20.40	33.95	60.99	26.12	28.40
	<i>Dollars</i>					
Costs per bushel						
Variable .....	1.18	1.51	.80	1.25	1.23	1.30
Machinery ownership .....	.47	.61	.41	.24	.49	.48
General farm overhead .....	.20	.21	.15	.18	.20	.19
Total of above .....	1.85	2.33	1.36	1.67	1.92	1.97
Value of wheat pasture .....	.06	.30	---	---	.11	.06
Costs per bushel .....	1.79	2.03	1.36	1.67	1.81	1.91

See footnotes at end of table 35.

Table 28—Hard winter wheat and all wheat: specified production costs, 1976

	Central Plains	Southern Plains	Northern Plains	Southwest	United States	All Wheat Total
	<i>Dollars</i>					
Cost per acre						
Variable						
Seed .....	4.16	4.68	4.69	12.01	4.62	6.55
Fertilizer .....	8.45	8.78	4.62	20.87	8.59	10.91
Lime .....	---	---	---	---	---	---
Chemicals <sup>1</sup> .....	.46	.25	1.37	3.20	.55	1.07
Custom operations <sup>2</sup> .....	5.29	4.26	4.02	12.91	5.02	3.86
All labor .....	5.69	4.98	5.19	12.43	5.59	5.91
Fuel and lubricants .....	3.61	4.06	3.47	5.56	3.82	3.98
Repairs .....	3.57	3.35	3.42	6.63	3.57	3.95
Miscellaneous expenses .....	---	---	---	2.13	.06	.04
Interest .....	1.56	1.36	1.41	2.65	1.51	1.66
Total variable cost .....	32.79	31.72	28.19	78.39	33.33	38.05
Machinery variable costs						
Replacement .....	9.04	8.81	10.16	10.01	9.08	9.73
Interest .....	3.64	3.64	4.01	4.38	3.69	3.91
Taxes and insurance .....	.96	1.15	1.02	1.11	1.04	1.05
Total ownership cost .....	13.64	13.60	15.19	15.50	13.81	14.69
General farm overhead .....	5.70	4.62	5.51	12.03	5.59	5.69
Grand total .....	52.13	49.94	48.89	105.92	52.73	58.44
	<i>Bushels</i>					
Yield per acre .....	27.5 - 31.3	19.9 - 23.7	29.0 - 32.8	54.9 - 58.7	25.7 - 29.5	27.8 - 31.6
	<i>Dollars</i>					
Costs per bushel						
Variable .....	1.05 - 1.19	1.34 - 1.60	.86 - .97	1.34 - 1.43	1.13 - 1.30	1.20 - 1.37
Machinery ownership .....	.44 - .50	.57 - .68	.46 - .53	.26 - .28	.47 - .53	.47 - .53
General farm overhead .....	.18 - .21	.19 - .23	.17 - .19	.20 - .22	.19 - .22	.18 - .20
Total of above .....	1.67 - 1.90	2.10 - 2.51	1.49 - 1.69	1.80 - 1.93	1.79 - 2.05	1.85 - 2.10
Value of wheat pasture .....	.05 - .05	.28 - .28	---	---	.11 - .11	.06 - .06
Cost per bushel .....	1.62 - 1.85	1.82 - 2.23	1.49 - 1.69	1.80 - 1.93	1.68 - 1.94	1.79 - 2.04

See footnotes at end of table 35.

## SOYBEANS

Estimates of costs per acre and per bushel are in tables 29, 30, and 31. The Lake States-Corn Belt region<sup>13</sup> had the lowest costs per bushel. Costs per acre were lower only in the Northern Plains where yields are lower and where a very small proportion

of the soybeans are produced. The highest cost production region, both per acre and per bushel, was the Southeast. Again, the high expenditures on chemicals and fertilizer, coupled with relatively low yields, explained the high cost levels. The United States average cost per bushel was \$2.41 in 1974, \$2.34 in 1975, and may rise to \$2.50 in 1976.

<sup>13</sup>States included in the regional identifications are: Lake States-Corn Belt—Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin; Northern Plains—Kansas, Nebraska, and South Dakota; Southeast—Alabama, Georgia, Kentucky, North Carolina, South

Carolina, Tennessee, and Virginia; and Delta—Arkansas, Louisiana, and Mississippi.

**Table 29—Soybeans: specified production costs, 1974**

	Lake States and Corn Belt	Northern Plains	Southeast	Delta	United States
	<i>Dollars</i>				
Cost per acre					
Variable					
Seed .....	7.57	7.56	7.99	7.89	7.69
Fertilizer .....	3.45	1.06	10.16	3.45	4.37
Lime .....	.46	.32	1.80	.60	.69
Chemicals <sup>1</sup> .....	6.41	4.95	10.91	8.86	7.45
Custom operations <sup>2</sup> .....	1.72	2.38	3.94	.82	1.95
All labor .....	6.38	5.41	6.70	5.75	6.27
Fuel and lubricants .....	3.78	3.10	4.73	4.55	4.03
Repairs .....	3.28	2.52	3.74	3.72	3.39
Interest .....	1.21	.79	1.77	1.45	1.31
Total variable cost .....	34.26	28.09	51.74	37.11	37.15
Machinery ownership cost					
Replacement .....	6.99	7.42	8.12	10.40	7.77
Interest .....	3.65	3.73	4.40	5.73	4.12
Taxes and insurance .....	.85	.97	1.04	1.29	.96
Total ownership cost .....	11.49	12.12	13.56	17.42	12.85
General farm overhead .....	5.22	6.33	4.66	4.99	5.19
Grand total .....	50.97	46.54	69.96	59.52	55.19
	<i>Bushels</i>				
Yield per acre .....	24.16	21.34	21.85	20.14	22.97
	<i>Dollars</i>				
Costs per bushel					
Variable .....	1.42	1.32	2.37	1.84	1.62
Machinery ownership .....	.48	.56	.62	.86	.56
General farm overhead .....	.21	.30	.21	.26	.23
Total of above .....	2.11	2.18	3.20	2.96	2.41
	<i>Percent</i>				
Percent of U.S. production .....	63.4	4.6	14.4	14.4	96.9

See footnotes at end of table 35.

**Table 30—Soybeans: specified production costs, 1975**

	Lake States and Corn Belt	Northern Plains	Southeast	Delta	United States
	<i>Dollars</i>				
<b>Cost per acre</b>					
<b>Variable</b>					
Seed .....	8.60	7.84	8.36	9.21	8.63
Fertilizer .....	4.77	1.48	13.45	5.10	6.01
Lime .....	.46	.32	1.80	.60	.69
Chemicals <sup>1</sup> .....	7.45	5.75	12.67	10.29	8.66
Custom operations <sup>2</sup> .....	2.08	2.87	4.76	1.00	2.35
All labor .....	7.35	5.92	7.38	6.34	7.11
Fuel and lubricants .....	4.27	3.30	5.29	5.01	4.51
Repairs .....	4.28	3.13	4.64	4.61	4.33
Interest .....	1.35	.86	1.98	1.58	1.46
<b>Total variable cost .....</b>	<b>40.61</b>	<b>31.47</b>	<b>60.33</b>	<b>43.74</b>	<b>43.75</b>
<b>Machinery ownership cost</b>					
Replacement .....	9.62	9.20	10.06	12.90	10.23
Interest .....	4.15	3.97	4.50	5.62	4.44
Taxes and insurance .....	1.01	1.05	1.12	1.38	1.09
<b>Total ownership cost .....</b>	<b>14.78</b>	<b>14.22</b>	<b>15.68</b>	<b>19.90</b>	<b>15.76</b>
General farm overhead .....	5.82	7.06	5.19	5.56	5.79
<b>Grand total .....</b>	<b>61.21</b>	<b>52.75</b>	<b>81.20</b>	<b>69.20</b>	<b>65.30</b>
	<i>Bushels</i>				
Yield per acre .....	30.96	23.15	22.51	22.93	27.88
	<i>Dollars</i>				
<b>Costs per bushel</b>					
Variable .....	1.31	1.36	2.68	1.91	1.57
Machinery ownership .....	.48	.61	.70	.87	.57
General farm overhead .....	.19	.31	.23	.24	.20
<b>Total of above .....</b>	<b>1.98</b>	<b>2.28</b>	<b>3.61</b>	<b>3.02</b>	<b>2.34</b>

See footnotes at end of table 35.

**Table 31—Soybeans: specified production costs, 1976**

	Lake States and Corn Belt	Northern Plains	Southeast	Delta	United States
	<i>Dollars</i>				
<b>Cost per acre</b>					
<b>Variable</b>					
Seed .....	8.60	7.84	8.36	9.21	8.63
Fertilizer .....	4.45	1.39	12.55	4.77	5.61
Lime .....	.46	.32	1.80	.60	.69
Chemicals <sup>1</sup> .....	8.08	6.23	13.74	11.15	9.39
Custom operations <sup>2</sup> .....	2.32	3.20	5.30	1.11	2.62
All labor .....	8.11	6.44	8.07	6.93	7.82
Fuel and lubricants .....	4.68	3.58	5.74	5.44	4.91
Repairs .....	4.77	3.46	5.13	5.10	4.82
Miscellaneous expenses .....	---	---	---	---	---
Interest .....	1.37	.87	1.96	1.58	1.47
<b>Total variable cost .....</b>	<b>42.84</b>	<b>33.33</b>	<b>62.65</b>	<b>45.89</b>	<b>45.96</b>
<b>Machinery ownership cost</b>					
Replacement .....	11.07	10.17	11.12	14.25	11.57
Interest .....	4.42	4.09	4.61	5.77	4.66
Taxes and insurance .....	1.12	1.13	1.19	1.48	1.19
<b>Total ownership cost .....</b>	<b>16.61</b>	<b>15.39</b>	<b>16.92</b>	<b>21.50</b>	<b>17.42</b>
<b>General farm overhead .....</b>	<b>6.22</b>	<b>7.54</b>	<b>5.55</b>	<b>5.94</b>	<b>6.19</b>
<b>Grand total .....</b>	<b>65.67</b>	<b>56.26</b>	<b>85.12</b>	<b>73.33</b>	<b>69.57</b>
	<i>Bushels</i>				
<b>Yield per acre .....</b>	<b>30.0 - 32.0</b>	<b>23.2 - 25.2</b>	<b>21.5 - 23.5</b>	<b>21.4 - 23.4</b>	<b>26.9 - 28.9</b>
	<i>Dollars</i>				
<b>Costs per bushel</b>					
<b>Variable .....</b>	<b>1.34 - 1.43</b>	<b>1.32 - 1.44</b>	<b>2.67 - 2.91</b>	<b>1.96 - 2.14</b>	<b>1.59 - 1.71</b>
Machinery ownership .....	.52 - .55	.61 - .66	.72 - .79	.92 - 1.00	.60 - .65
General farm overhead .....	.19 - .21	.30 - .32	.24 - .26	.25 - .28	.21 - .23
<b>Total of above .....</b>	<b>2.05 - 2.19</b>	<b>2.23 - 2.42</b>	<b>3.63 - 3.96</b>	<b>3.13 - 3.42</b>	<b>2.40 - 2.59</b>

See footnotes at end of table 35.



# FLAXSEED

Production of flaxseed is centered in North Dakota, Minnesota, and Montana. Yields of flaxseed are typically low, relative to other grain crops, and quite variable. Because of the low yields, 8.1 bushels per harvested acre in 1974, cost estimates per bushel are greatly affected by small yield changes. However, flaxseed production uses a

smaller proportion of fertilizers and chemicals than other crops, and input price increases in 1975 did not affect per acre costs to the same extent as for other crops. For 1974-76, per acre costs are anticipated to increase 13 percent while costs per bushel decline by about 10 percent if projected yields are realized. (See table 32.)

**Table 32—Flaxseed: specified production costs**

	1974	1975	1976
	<i>Dollars</i>		
Cost per acre			
Variable			
Seed .....	9.39	7.23	7.23
Fertilizer .....	1.03	1.42	1.32
Chemicals <sup>1</sup> .....	1.27	1.48	1.61
Custom operations <sup>2</sup> ..	1.26	1.52	1.69
All labor .....	4.73	5.21	5.70
Fuel and lubricants ...	3.08	3.30	3.58
Repairs .....	3.10	3.84	4.25
Miscellaneous expenses .....	.05	.05	.05
Interest .....	.72	.71	.72
Total variable cost .....	24.63	24.76	26.15
Machinery ownership cost			
Replacement .....	7.30	9.05	10.00
Interest .....	3.65	3.84	3.94
Taxes and insurance ..	.88	.94	1.00
Total ownership cost ...	11.83	13.83	14.94
General farm overhead ..	3.86	4.31	4.60
Grand total .....	40.32	42.90	45.69
	<i>Bushels</i>		
Yield per acre .....	7.63	9.60	8.6 - 10.7
	<i>Dollars</i>		
Costs per bushel			
Variable .....	3.23	2.58	2.44 - 3.04
Machinery ownership ...	1.55	1.44	1.39 - 1.74
General farm overhead ..	.51	.45	.43 - .53
Total of above .....	5.29	4.47	4.26 - 5.31
	<i>Percent</i>		
Percent of U.S. production .....	95.8		

See footnotes at end of table 35.

# PEANUTS

Cost estimates for peanuts are in tables 33, 34, and 35.<sup>14</sup> While per acre costs are approximately the same in both the Virginia-Carolina and Southeast regions, costs per acre in the Southern Plains are consistently lower. Yields are the lowest in the Southern Plains and the highest in the Southeast,

where the majority of peanuts are produced. Because of yield differentials, the Southeast has the lowest cost per pound and the Southern Plains the highest.

Cost estimates per pound are projected to increase from 8.9 cents in 1974 to 9.5 cents in 1976. This is a modest increase of only 6 percent in spite of an 18-percent increase in per acre costs. Again, the moderating factor is yields, projected to increase about 11 percent.

<sup>14</sup>Regional descriptions for peanuts are: Virginia and North Carolina; Southeast—Alabama, Florida, and Georgia; and Southern Plains—Oklahoma and Texas.

**Table 33—Peanuts: specified production costs, 1974**

	Virginia and North Carolina	Southeast	Southern Plains	United States
	<i>Dollars</i>			
Cost per acre				
Variable				
Seed .....	46.64	41.18	33.46	39.94
Fertilizer .....	9.19	13.45	12.83	12.49
Lime and Gypsum .....	14.82	13.62	.47	10.04
Chemicals <sup>1</sup> .....	59.29	50.72	33.97	47.45
Custom operations <sup>2</sup> .....	19.37	30.28	17.61	24.62
All labor .....	20.02	15.55	13.14	15.68
Fuel and lubricants .....	10.87	10.27	9.83	10.25
Repairs .....	9.48	10.52	6.97	9.31
Miscellaneous expenses .....	---	---	1.72	.50
Interest .....	4.66	4.67	3.65	4.38
Total variable cost .....	194.34	190.26	133.66	174.66
Machinery ownership cost .....				
Replacement .....	14.04	15.72	17.57	15.95
Interest .....	7.82	8.94	8.73	8.67
Taxes and insurance .....	1.92	2.16	2.75	2.29
Total ownership costs .....	23.78	26.82	29.05	26.91
General farm overhead .....	15.34	17.74	8.46	14.65
Grand total .....	233.46	234.82	171.17	216.22
	<i>Pounds</i>			
Yield per acre .....	2,552.	2,915.	1,478.	2,433.
	<i>Dollars</i>			
Costs per pound				
Variable .....	.076	.065	.090	.072
Machinery ownership .....	.009	.009	.020	.011
General farm overhead .....	.006	.006	.006	.006
Total of above .....	.091	.080	.116	.089
	<i>Percent</i>			
Percent of U.S. production .....	18.9	62.5	17.4	98.8

See footnotes at end of table 35.

Table 34—Peanuts: specified production costs, 1975

	Virginia and North Carolina	Southeast	Southern Plains	United States
	<i>Dollars</i>			
Cost per acre				
Variable				
Seed .....	43.10	38.50	30.69	37.08
Fertilizer .....	22.97	22.85	17.72	21.39
Lime and gypsum .....	4.02	8.02	---	4.97
Chemicals <sup>1</sup> .....	68.84	58.89	39.44	55.08
Custom operations <sup>2</sup> .....	21.78	36.78	21.89	29.73
All labor .....	21.56	17.14	14.45	17.17
Fuel and lubricants .....	12.04	11.42	10.77	11.35
Repairs .....	11.76	13.05	8.64	11.54
Miscellaneous expenses .....	---	---	1.72	.50
Interest .....	4.85	4.89	3.93	4.61
Total variable cost .....	210.92	211.54	149.25	193.42
Machinery ownership cost				
Replacement .....	17.41	19.49	21.77	19.77
Interest .....	8.13	9.14	9.53	9.07
Taxes and insurance .....	2.06	2.31	3.15	2.51
Total ownership costs .....	27.60	30.94	34.45	31.35
General farm overhead .....	17.10	19.78	9.43	16.34
Grand total .....	255.62	262.26	193.13	241.11
	<i>Pounds</i>			
Yield per acre .....	2,546	3,160	1,655	2,613
	<i>Dollars</i>			
Costs per pound				
Variable .....	.083	.067	.090	.074
Machinery ownership .....	.011	.010	.021	.012
General farm overhead .....	.006	.006	.006	.006
Total of above .....	.100	.083	.117	.092

See footnotes at end of table 35.

Table 35—Peanuts: specified production costs, 1976

	Virginia and North Carolina	Southeast	Southern Plains	United States
	<i>Dollars</i>			
Cost per acre				
Variable				
Seed .....	43.10	38.51	30.69	37.08
Fertilizer .....	11.35	16.11	16.08	15.23
Lime and gypsum .....	14.82	13.62	.47	10.04
Chemicals <sup>1</sup> .....	74.65	63.86	42.77	59.73
Custom operations <sup>2</sup> .....	24.82	41.30	24.58	33.45
All labor .....	23.16	18.74	15.78	18.68
Fuel and lubricants .....	13.07	12.40	11.68	12.31
Repairs .....	12.99	14.42	9.56	12.75
Miscellaneous expenses .....	---	---	1.72	.50
Interest .....	4.83	4.88	3.93	4.60
Total variable cost .....	222.79	223.84	157.26	204.37
Machinery ownership cost				
Replacement .....	19.24	21.54	24.08	21.85
Interest .....	8.34	9.38	10.02	9.37
Taxes and insurance .....	2.20	2.47	3.43	2.70
Total ownership costs .....	29.78	33.39	37.53	33.92
General farm overhead .....	18.27	21.13	10.08	17.44
Grand total .....	270.84	278.36	204.87	255.73
	<i>Pounds</i>			
Yield per acre .....	2,557. - 2,753.	3,166. - 3,362.	1,643 - 183.	2,614. - 2,810.
	<i>Dollars</i>			
Costs per pound				
Variable .....	.081 - .087	.067 - .071	.086 - .096	.073 - .078
Machinery ownership .....	.011 - .012	.010 - .011	.020 - .023	.012 - .013
General farm overhead .....	.006 - .007	.006 - .007	.005 - .006	.006 - .007
Total of above .....	.098 - .106	.083 - .089	.111 - .125	.091 - .098

<sup>1</sup> Includes herbicide, insecticide, and rodenticide materials not otherwise included under custom operations. <sup>2</sup> Includes custom application of crop chemicals, custom harvesting and hauling, and all grain drying. <sup>3</sup> Irrigation water.

Note: The costs shown do not include land and management charges which, depending upon the crop and region, may account for one-fourth to three-fifths of all costs.

# RICE

The major rice-growing States are Arkansas and Louisiana (Delta States), California, and Texas. As explained earlier, costs for only 1975 and 1976 are available. Although per acre cost variations among regions are small, yield differences are much larger. The larger yield variation translates into large variations in cost per hundredweight.

California has the highest yields and the lowest costs per hundredweight. Texas shows the highest costs per hundredweight, and the Delta States show the lowest per acre costs. U.S. average costs per hundredweight show a small increase from \$5.88 to about \$6.02 between 1975 and 1976.

**Table 36—Rice: specified production costs, 1975**

	Delta States	Texas	California	United States
	<i>Dollars</i>			
Cost per acre				
Variable				
Seed .....	29.21	27.47	24.55	28.00
Fertilizer .....	31.40	42.35	37.70	34.72
Chemicals <sup>1</sup> .....	17.76	24.76	10.23	17.72
Custom operations <sup>2</sup> .....	14.32	19.81	12.09	14.97
All labor .....	31.08	36.08	34.40	32.68
Fuel and lubricants .....	25.96	36.79	30.69	28.77
Repairs .....	16.38	10.16	18.35	15.54
Miscellaneous expenses <sup>3</sup> .....	25.61	34.89	30.71	28.38
Interest .....	5.21	8.35	5.83	5.94
Total variable cost .....	196.93	239.66	204.55	206.72
Machinery ownership cost				
Replacement .....	30.80	26.12	26.27	29.04
Interest .....	13.16	9.74	11.89	12.26
Taxes and insurance .....	2.44	2.22	2.93	2.48
Total ownership cost .....	46.40	38.08	41.09	43.78
General farm overhead .....	15.99	18.06	24.81	17.92
Grand total .....	259.32	295.80	270.45	268.42
	<i>Hundredweight</i>			
Yield per acre .....	41.96	45.87	57.30	45.60
	<i>Dollars</i>			
Costs per hundredweight				
Variable .....	4.69	5.22	3.57	4.53
Machinery ownership .....	1.11	.83	.72	.96
General farm overhead .....	.38	.39	.43	.39
Total of above .....	6.18	6.44	4.72	5.88
	<i>Percent</i>			
Percent of U.S. production .....	59.0	19.0	21.0	99.0

See footnotes at end of table 37.

**Table 37—Rice: specified production costs, 1976**

	Delta States	Texas	California	Total
	<i>Dollars</i>			
<b>Cost per acre</b>				
<b>Variable</b>				
Seed .....	25.71	21.03	24.55	24.57
Fertilizer .....	29.40	39.55	35.43	32.46
Chemicals <sup>1</sup> .....	19.25	26.88	11.10	19.39
Custom operations <sup>2</sup> .....	14.34	19.82	12.09	15.06
All labor .....	33.84	39.43	37.65	35.61
Fuel and lubricants .....	26.89	36.60	31.84	29.68
Repairs .....	17.67	11.29	20.39	16.85
Miscellaneous expenses <sup>3</sup> .....	26.41	33.93	30.57	28.62
Interest .....	5.01	7.84	5.75	5.70
<b>Total variable cost .....</b>	<b>198.52</b>	<b>236.37</b>	<b>209.37</b>	<b>207.94</b>
<b>Machinery ownership cost</b>				
Replacement .....	33.33	29.05	29.19	31.77
Interest .....	13.42	10.05	12.25	12.54
Taxes and insurance .....	2.57	2.38	3.15	2.62
<b>Total ownership cost .....</b>	<b>49.32</b>	<b>41.48</b>	<b>44.59</b>	<b>46.93</b>
<b>General farm overhead .....</b>	<b>17.08</b>	<b>19.29</b>	<b>26.50</b>	<b>19.14</b>
<b>Grand total .....</b>	<b>264.92</b>	<b>297.14</b>	<b>280.46</b>	<b>274.01</b>
	<i>Hundredweight</i>			
<b>Yield per acre .....</b>	<b>41.29 - 44.29</b>	<b>43.07 - 47.07</b>	<b>55.5 - 58.5</b>	<b>44.06 - 47.06</b>
	<i>Dollars</i>			
<b>Costs per hundredweight</b>				
<b>Variable .....</b>	<b>4.48 - 4.81</b>	<b>5.02 - 5.49</b>	<b>3.58 - 3.77</b>	<b>4.42 - 4.72</b>
Machinery ownership .....	1.11 - 1.19	.88 - .96	.76 - .80	1.00 - 1.07
General farm overhead .....	.39 - .41	.41 - .45	.45 - .48	.40 - .43
<b>Total of above .....</b>	<b>5.98 - 6.41</b>	<b>6.31 - 6.90</b>	<b>4.79 - 5.05</b>	<b>5.82 - 6.22</b>

<sup>1</sup> Includes herbicide, insecticide, and rodenticide materials not otherwise included under custom operations. <sup>2</sup> Includes custom application of crop chemicals, custom harvesting and hauling. <sup>3</sup> Includes drying, storage, and transportation.

Note: The costs shown do not include land and management charges which, depending upon the crop and region of the country, may account for one-fourth to three-fifths of all costs.