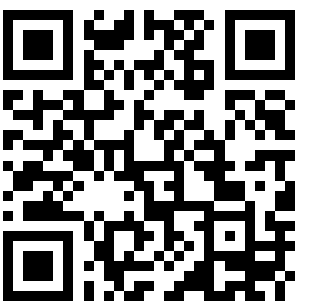


# 1979 Handbook of Agricultural Charts



United States Department of Agriculture

Agriculture Handbook No. 561

OUTLOOK '80
Agriculture in a World Setting

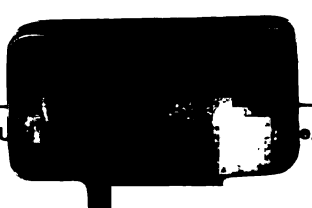
The craft of chart-making at USDA goes back more than 50 years. The Handbook of Agricultural Charts—issued each fall at the annual USDA Outlook Conference in Washington, D.C. —has been published in one form or another since 1933. Chartbooks for some commodities, however, have been printed regularly since 1929.

Since 1862, when President Lincoln created USDA, one of the Department's key missions has been to gather and disseminate information. In the early years, the Department used tables to present data . . . then moved on to charts and maps, for weather information in particular.

Jacob R. Dodge, a prime mover in developing statistics, labored to portray agricultural information in ways the farmers and the public could easily understand. In 1915 came the dot map—a device to show distribution of production. That idea was conceived by Oliver E. Baker in his Graphic Summary of American Agriculture.

Thereafter, charts and graphs were used more and more, especially by the U.S. Bureau of Markets in its Market Reporter. Economic trends have come alive through maps, charts, and graphs in this year's Handbook of Agricultural Charts.

With pleasure, the dozens of USDA specialists who worked on this project present you with the final product. We hope you will find it useful in your work, and we welcome your comments and suggestions. Write U.S. Department of Agriculture, ESCS, Information Services Branch, Room 0054, Washington, D.C. 20250.



For sale by the Superintendent of Documents, U[illegible]e, Washington, D.C. 20402

# CONTENTS




## 1979 AGRICULTURAL CHARTBOOK COMMITTEE

*Economics, Statistics, and Cooperatives Service Information*
Martin Schubkegel, Editor
Debra Ritter, Assistant Editor
Susan Yanero, Susan DeGeorge, Jim Morrison, Graphic Coordinators
Walter Patrick, Joan Bazemore, Technical Aids
Pete Manzelli, Cover Symbol Design
Dolores Burrell, Sheila Turner, Debbie Perrell, Shawn Irving, Francina Edwards, Composition

*Office of Governmental and Public Affairs*
Claude W. Gifford, Editorial Advisor
Jim Vechery, Technical Advisor
Harris Goldman, Design Advisor

*Agency Economic Advisory Board*
Alan Bird, Tom Frey, Denis Dunham, Don Durost, Tom Warden, Economics, Statistics, and Cooperatives Service
Johnny Braden, Food and Nutrition Service
Cynthia Jennings, Cynthia Cromwell Junker Science and Education Administration
Lynn Krawczyk, Foreign Agricultural Service

Washington, D. C. 20250

October 1979

# INTRODUCTION

Welcome to the *1979 Handbook of Agricultural Charts.* You'll find almost 300 charts, on everything from cost of farm inputs to world agricultural trade to food stamps. Tables, background, and explanatory text are also included.

In reading the charts, please note that all years are calendar years unless otherwise indicated. Current-year figures shown on the charts and tables for crops reflect the midpoint of a range of likely prospects for supplies and use.

But since there is still considerable uncertainty surrounding the final outcome of supply-use balances for crops, you should refer to upcoming USDA releases to stay abreast of outlook developments.

USDA's Economics, Statistics, and Cooperatives Service also offers several publications that regularly update agricultural economic information. They include:

*Agricultural Outlook*, a monthly magazine which gives statistical updates and economic analyses of the food and agriculture scene. (A free copy and subscription information will be sent upon request.)

Situation reports (periodic commodity-specific reports):

*Livestock and Meat; Poultry and Eggs; Dairy; Feed; Rice; Wheat; Sugar and Sweetener; Fats and Oils; Cotton and Wool; Fruit; Vegetable, and Tobacco.*

Other periodic reports: *Agricultural Finance Outlook; Farm Real Estate Market Developments; Outlook for U.S. Agricultural Exports; World Agricultural Situation; Agricultural Supply and Demand Report; and National Food Review.*

*Farmer Cooperatives*, a monthly magazine reporting research and technical assistance activities of ESCS Cooperatives Divisions and other developments among agricultural cooperatives (free copy and subscription information available on request).

*Statistics of Farmer Cooperatives,* an annual compilation of national data about the business activity of agricultural marketing, supply, and related service cooperatives.

*Farmers' Newsletter*, a free service to producers. Six different titles, each published at least five times a year, offer the special information farmers need to make production and marketing decisions: Wheat, Livestock, Feed Grains, Soybeans, Cotton, General Topics. Specify titles when ordering.

To receive any of the above publications, write to ESCS Publications, 0054-South Bldg., USDA, Washington, D.C. 20250.

ESCS's Crop Reporting Board publishes a full schedule of production and stocks estimates covering 150 crops and 50 livestock and related products, as well as summaries of prices, labor, farm numbers, and other topics. For a complete listing, release dates, and how to order, write for a Crop Reporting Board Catalog, free from the Crop Reporting Board, Room 0054-South, USDA, Washington, D.C. 20250.

Do you see any charts in this year's Handbook which you would like to order as prints or slides? If so, see page 143 for information on how to order.

# THE FARM



# INCOME

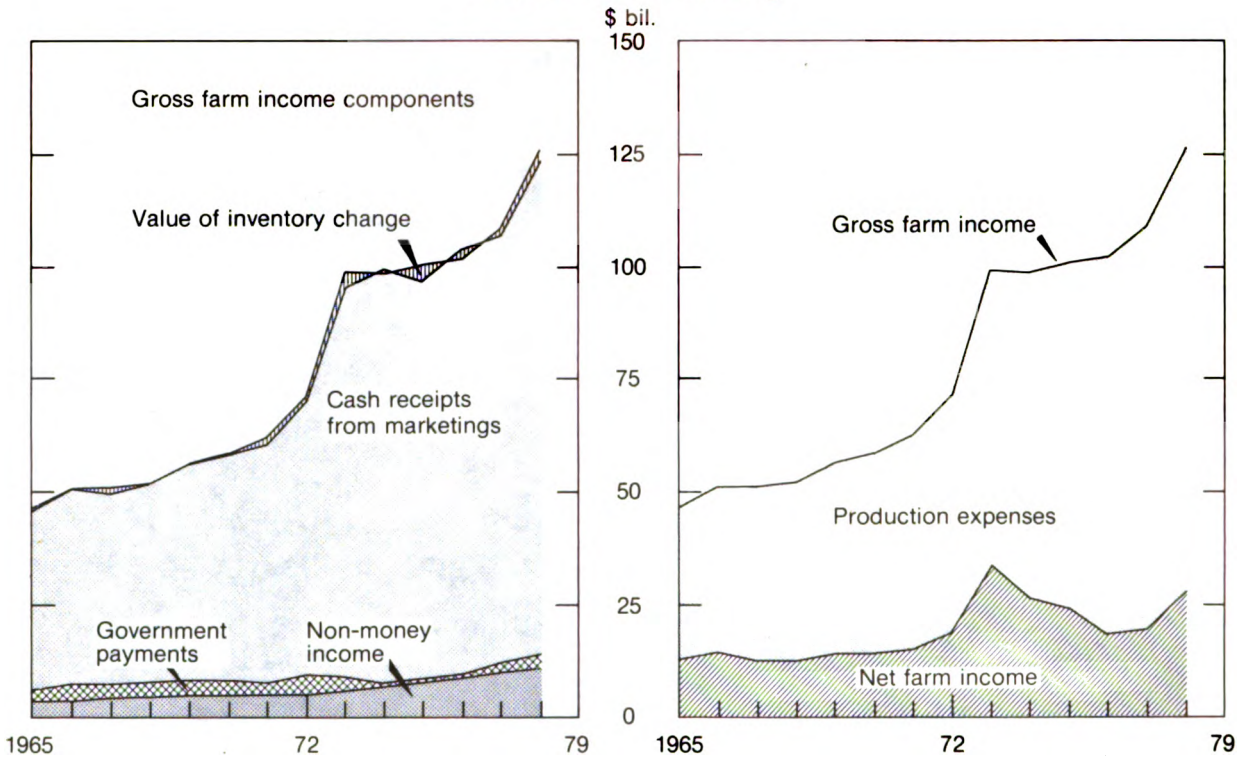
Gross income from farming has climbed erratically over the last several years, but production expenses have risen persistently—thus creating a volatile change in net income from farming.

Following years of fairly steady growth, cash receipts jumped during the early 1970's as the result of reduced crop supplies worldwide and economic conditions. Higher grain prices aggravated the downturn in the cattle cycle. Reduced livestock feeding and increased grain supplies in the mid-1970's put downward pressure on crop prices. Gross income stagnated.

Livestock prices jumped sharply in 1978 and crop prices started a modest upturn.

Chart 1

**Income from Farming**




**Income From Farming**

| | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|---|---|---|---|
| | | | | *Billion dollars* | | | | |
| Gross income | 62.0 | 71.0 | 98.9 | 98.3 | 100.3 | 101.8 | 108.5 | 126.0 |
| Marketing receipts | 52.9 | 61.2 | 87.1 | 92.4 | 88.2 | 94.8 | 95.7 | 111.0 |
| Value of inventory change | 1.4 | .9 | 3.4 | -1.6 | 3.4 | -2.4 | 1.1 | 1.1 |
| Government payments | 3.1 | 4.0 | 2.6 | .5 | .8 | .7 | 1.8 | 3.0 |
| Nonmoney and other income | 4.6 | 5.0 | 5.8 | 7.0 | 7.9 | 8.7 | 10.0 | 10.8 |
| Production expenses | 47.4 | 52.3 | 65.6 | 72.2 | 75.9 | 83.1 | 88.8 | 98.1 |
| Net farm income | 14.6 | 18.7 | 33.3 | 26.1 | 24.5 | 18.7 | 19.8 | 27.9 |

Data from *Farm Income Statistics* 1979 (ESCS). Details may not add to totals due to rounding.

# INCOME

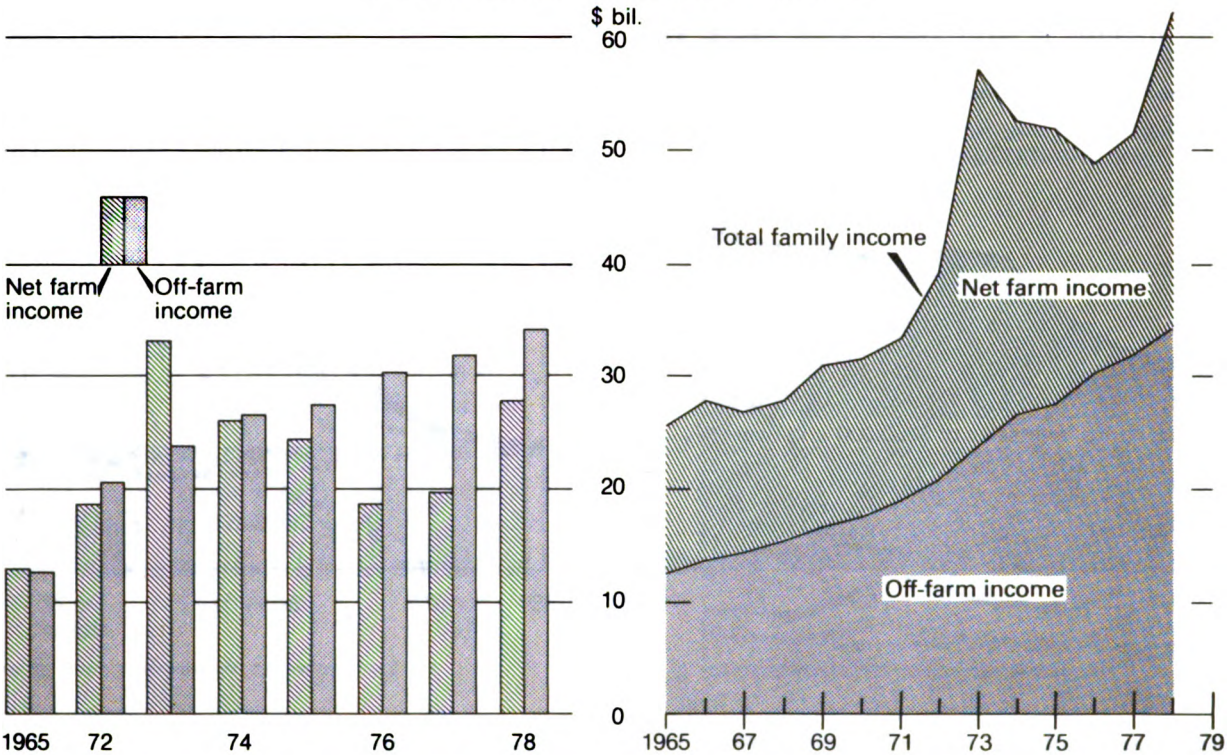
U.S. farm operators earned a total family income of $62 billion from farm and off-farm sources in 1978, an increase of 20 percent over total income in 1977. Most of this income came from off-farm sources, but the biggest gain was from farming.

Farm operator families and a largely overlapping group—defined as people living on farms—earned nearly 60 percent of their income from off-farm sources during the last few years.

But most of the off-farm income is earned by families who operate the smaller farms, while most of the net farm income is earned by families operating larger farm units.

Chart 2

**Income of Farm Operator Families**




Net farm income includes an adjustment for changes in yearend crop and livestock inventories. Represents return to operator families' labor, capital, and management.
Data from Farm Income Statistics, 1979 (ESCS). Totals may not add due to rounding.

**Income of Farm Operator Families**

| | 1965 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|---|---|---|---|
| | | | | *Billion dollars* | | | | |
| Net farm income[1] | 12.9 | 18.7 | 33.3 | 26.1 | 24.5 | 18.7 | 19.8 | 27.9 |
| Off-farm income | 12.7 | 20.6 | 23.8 | 26.5 | 27.5 | 30.3 | 31.9 | 34.3 |
| Total family income | 25.6 | 39.3 | 57.1 | 52.6 | 51.9 | 49.0 | 51.6 | 62.2 |

[1] Represents return to operator families' labor, capital, and management.

Data from *Farm Income Statistics*, 1979 (ESCS). Totals may not add due to rounding.

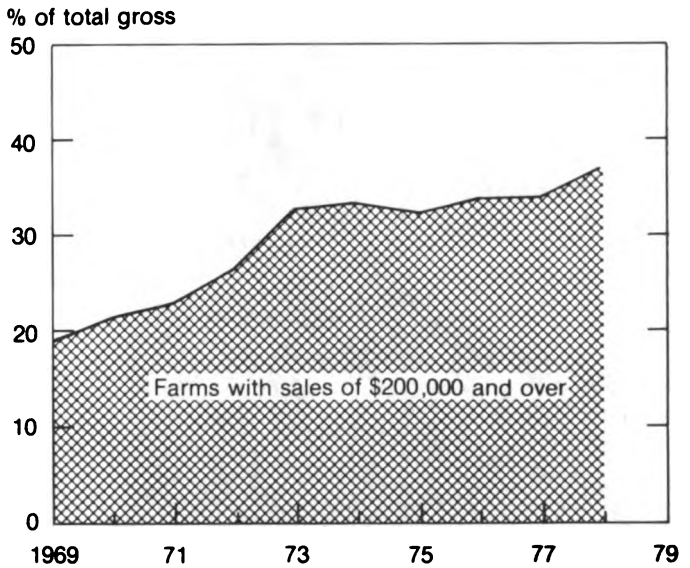
# INCOME

Gross farm income in 1978 was more than four times the 1969 level for farms with sales of $200,000 and over. Moving from about $11 billion to $46 billion during that period, gross farm income for this group of farms also increased its share of the total gross for all farms—from about 20 percent to 37 percent.

The number of farms in the United States has been declining steadily, and those that remain have become larger. In 1978, farms numbered under 2.7 million, about 89 percent of the 1969 total of 3 million. Farms with sales of $200,000 and over were about four times as numerous (63,000) in 1978 as they were in 1969 (16,000).

**Chart 3**

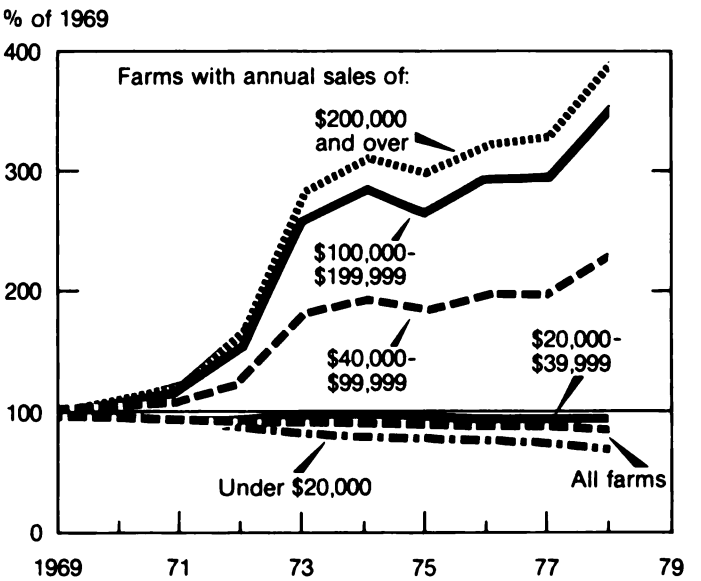
### Big Farms' Share of Gross Farm Income is Growing




Gross Farm Income before adjustment for inventory change

**Chart 4**

### Percent Change in Farms by Size of Sales




**Gross Farm Income[1]**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Farms with annual sales: | | | | |
| $200,000 and over | 31,255 | 35,319 | 36,362 | 45,961 |
| Under $200,000 | 65,683 | 68,859 | 71,116 | 78,953 |
| All farms | 96,938 | 104,178 | 107,478 | 124,914 |
| | *Percentage of total* | | | |
| Farms with annual sales: | | | | |
| $200,000 and over | 32.2 | 33.9 | 33.8 | 36.8 |
| Under $200,000 | 67.8 | 66.1 | 66.2 | 63.2 |

[1] Before adjustment for inventory change.

**Number of Farms**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Thousands* | | | |
| Farms with annual sales: | | | | |
| $200,000 and over | 48 | 52 | 53 | 63 |
| $100,000-199,000 | 94 | 103 | 104 | 124 |
| $40,000-99,999 | 316 | 338 | 340 | 390 |
| $20,000-39,999 | 324 | 323 | 320 | 323 |
| Under $20,000 | 1,985 | 1,922 | 1,889 | 1,772 |
| | *Percentage of 1969* | | | |
| Farms with annual sales: | | | | |
| $200,000 and over | 300.0 | 325.0 | 331.3 | 393.8 |
| $100,000-199,999 | 268.6 | 294.3 | 297.1 | 354.3 |
| $40,000-99,999 | 185.9 | 198.8 | 200.0 | 294.1 |
| $20,000-39,999 | 98.2 | 97.9 | 97.0 | 97.9 |
| Under $20,000 | 81.1 | 78.5 | 77.1 | 72.4 |

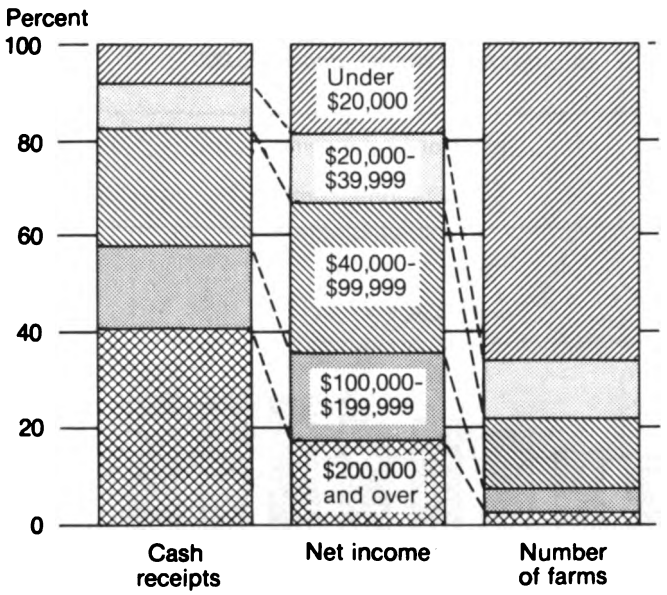
# INCOME

In 1978, farms with sales of $200,000 and over represented only about 2 percent of all farms, yet accounted for 40 percent of cash receipts and 18 percent of net income.

Those with sales of $100,000-$199,999 made up 5 percent of farms, 17 percent of cash receipts, and 18 percent of net income. Farms with sales of under $20,000 represented 66 percent of all farms but received only 8 percent of cash receipts and 18 percent of net income. Net income per farm has changed dramatically for farms with annual sales of $200,000 and over—rising from $60,000 in 1971 to nearly $150,000 in 1973. Income dropped to just over $40,000 in 1977, then rose to $78,000 in 1978.

Chart 5

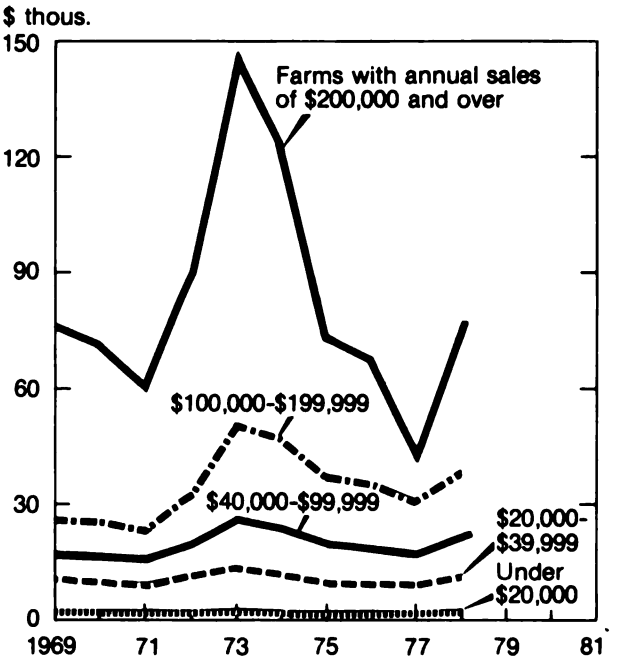
## Cash Receipts, Net Income, and Farms By Sales Classes




1978 data. Net income before adjustment for inventory change.

Chart 6

## Net Income per Farm By Sales Classes




Net income before adjustment for inventory change.
Data from Farm Income Statistics. August or September 1979.

### Cash Receipts, Net Income and Farms by Sales Classes, 1978

| | Cash receipts | Net income[1] | Farms |
|---|---|---|---|
| | *Million dollars* | | *Thousands* |
| Farm with annual sales: | | | |
| $200,000 and over | 45,029 | 4,932 | 63 |
| $100,000 - $199,999 | 19,063 | 4,856 | 124 |
| $ 40,000 - $99,999 | 27,413 | 8,438 | 390 |
| $20,000 - $39,999 | 10,492 | 3,794 | 323 |
| Under $20,000 | 9,045 | 4,798 | 1,772 |
| All farms | 111,042 | 26,818 | 2,672 |
| | *Percentage of total sales* | | |
| Farms with annual sales: | | | |
| $200,000 and over | 40.5 | 18.4 | 2.4 |
| $100,000 - $199,999 | 17.2 | 18.1 | 4.6 |
| $40,000 - $99,999 | 24.7 | 31.5 | 14.6 |
| $20,000 - $39,999 | 9.4 | 14.2 | 12.1 |
| Under $20,000 | 8.2 | 17.8 | 66.3 |
| All farms | 100.0 | 100.0 | 100.0 |

[1] Before adjustment for inventory change.

### Net Income Per Farm by Sales Classes

| | 1976 | 1977 | 1978 |
|---|---|---|---|
| | *Thousand farms* | | |
| Farms with annual sales: | | | |
| $200,000 and over | 52 | 53 | 63 |
| $100,000 - $199,999 | 103 | 104 | 124 |
| $40,000 - $99,999 | 338 | 340 | 390 |
| $20,000 - $39,999 | 323 | 320 | 323 |
| Under $20,000 | 1,922 | 1,889 | 1,772 |
| | *Dollars* | | |
| Net income[1] for farms with annual sales: | | | |
| $200,000 and over | 67,500 | 41,378 | 78,286 |
| $100,000 - $199,999 | 35,756 | 31,510 | 39,161 |
| $40,000 - $99,999 | 19,033 | 17,672 | 21,636 |
| $20,000 - $39,999 | 9,909 | 9,590 | 11,745 |
| Under $20,000 | 2,196 | 2,199 | 2,708 |

[1] Before adjustment for inventory change.

# INCOME

In 1978, all farm families together received 56 percent of their total income from off-farm sources.

Families with sales less than $5,000 earned most of their income from off-farm sources, about 90 percent.

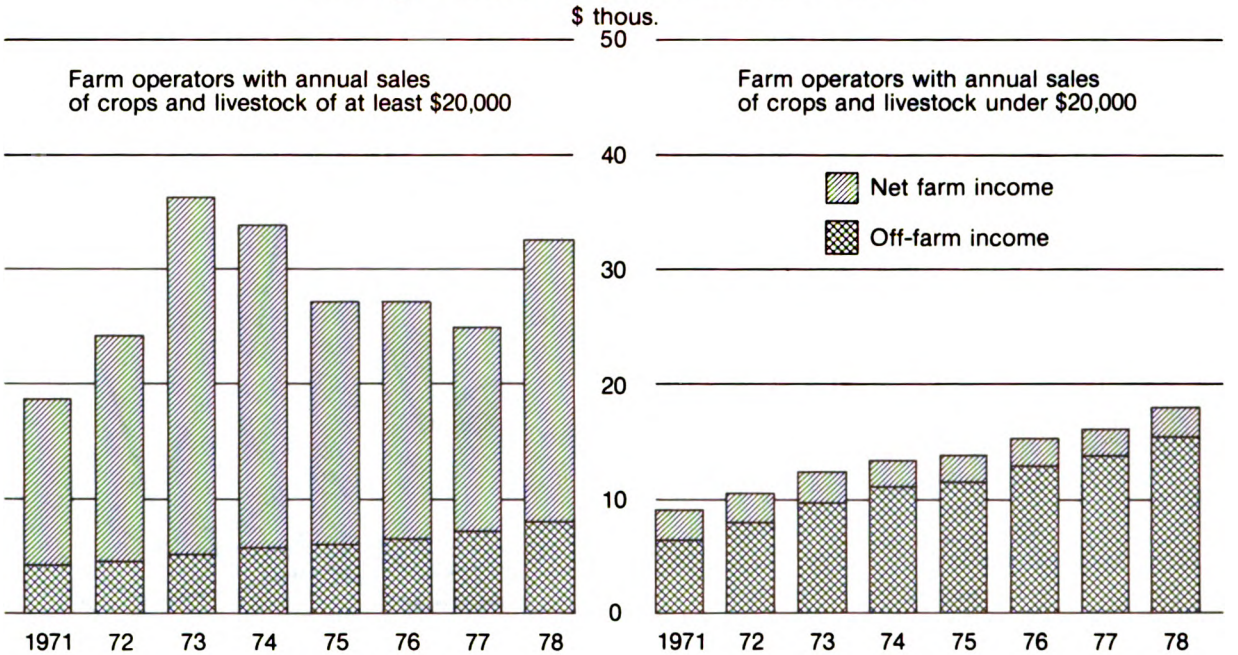
Generally, families with larger farms depend less heavily on off-farm sources of income.

For example, farm families with sales of $100,000 and over received only 17 percent of their total income from off-farm sources.

---

**Chart 7**

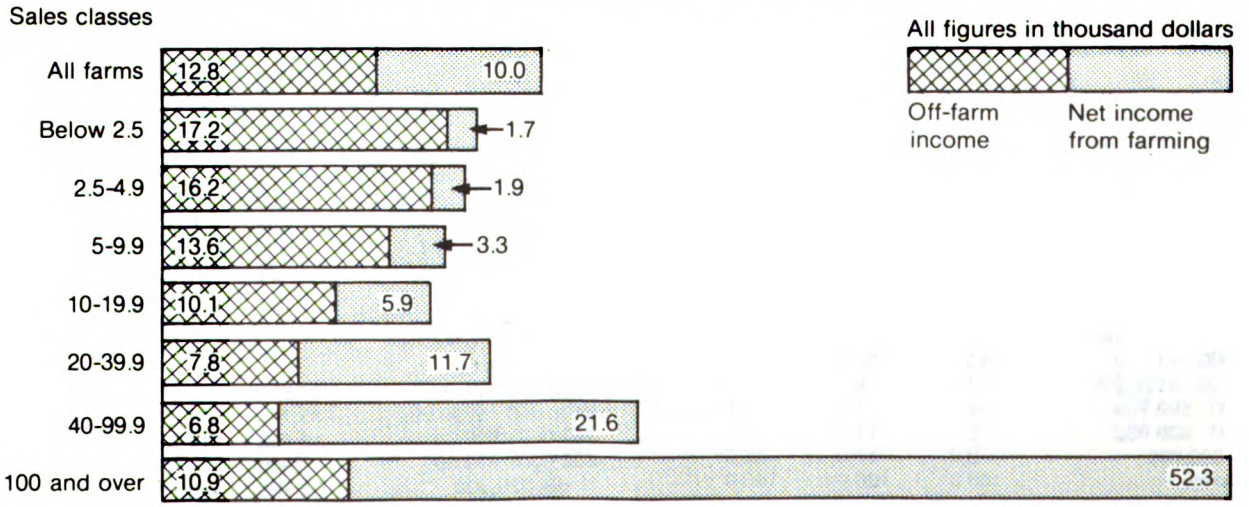
## Average Farm Family Income, All Sources




Net income before adjustment for inventory change.

**Chart 8**

## Farm and Off-farm Income per Farm Operator Family by Value of Farm Products Sold



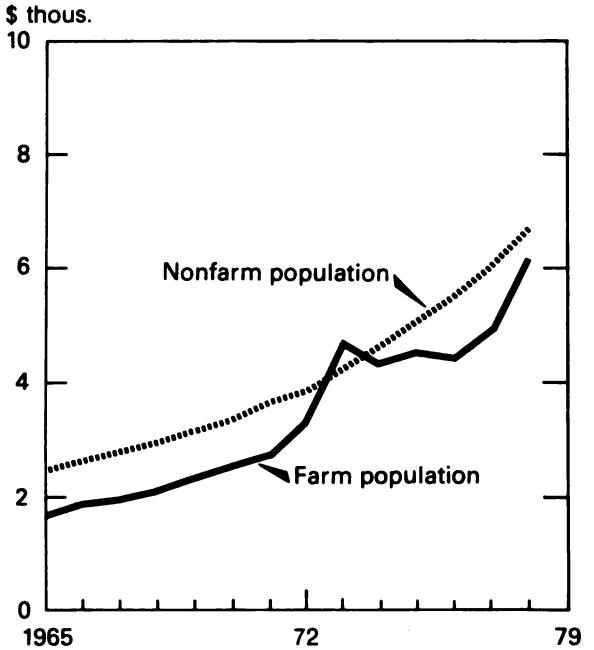

1978 data. Net income before adjustment for inventory change.

# INCOME

Per capita income of the farm population fluctuates more than that of the nonfarm population. However, during most years, a substantial proportion of people living on farms receives significant amounts of income from nonfarm sources, and this tends to reduce some of the difference in income of the two groups. Fluctuation in per capita income is mainly related to net returns from farming. While not all farm income goes to people living on farms, the bulk does. The net represents a return to farm operators for contributions of labor, capital and management. While such earnings do not always keep pace with inflation, operators who own or are buying farms have benefited from rising farm values.

Chart 9

## Disposable Income per Capita




Disposable personal income represents income from all sources less personal contributions for social insurance and personal tax and nontax payments.

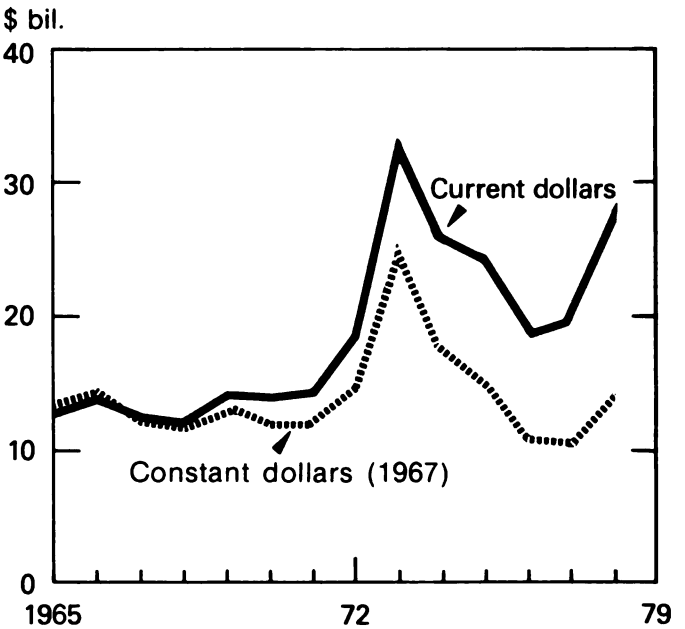
**Disposable Income Per Capita**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Dollars* | | | |
| Per capita income from all sources: | | | | |
| Total population | 5,088 | 5,505 | 6,018 | 6,673 |
| Farm population | 4,520 | 4,314 | 4,946 | 6,069 |
| Nonfarm population | 5,113 | 5,553 | 6,058 | 6,696 |
| | *Percent* | | | |
| Farm as percentage of nonfarm | 88.4 | 77.7 | 81.6 | 90.6 |

Data from *Farm Income Statistics,* 1979 (ESCS).

Chart 10

## Net Farm Income




**Net Income From Farming**

| | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|
| | *Billion dollars* | | | |
| Current dollars | 14.6 | 18.7 | 33.3 | 26.1 |
| Real dollars (1967) | 12.1 | 14.9 | 25.1 | 17.7 |
| | 1975 | 1976 | 1977 | 1978 |
| | *Billion dollars* | | | |
| Current dollars | 24.5 | 18.7 | 19.8 | 27.9 |
| Real dollars (1967) | 15.2 | 11.0 | 10.9 | 14.3 |

# ASSETS AND FINANCES

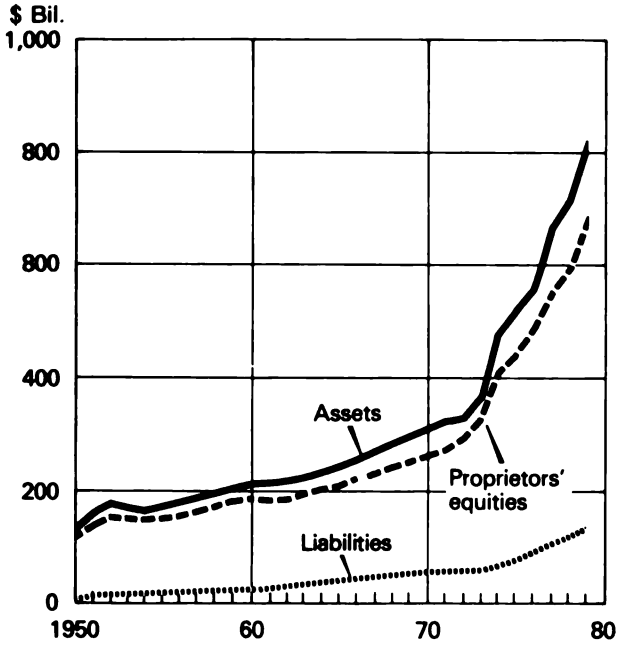
The value of farm assets at the beginning of 1979 was six times higher than in 1950. In the 23 years between 1950 and 1973, farm asset value grew from $135 billion to $395 billion; in the last 7 years it has doubled and totaled $820 billion on January 1, 1979. The rapid rise in the value of farmland led the way.

Farm debt and equity have roughly paralleled the rate of growth in farm assets since 1950.

The debt-to-asset ratio for farm real estate is traditionally much lower than the ratio for nonreal estate assets. Farmers' mounting use of credit for operating expenses and capital expenditures has caused the debt-to-asset ratio for nonreal estate items to trend upward.

Chart 11

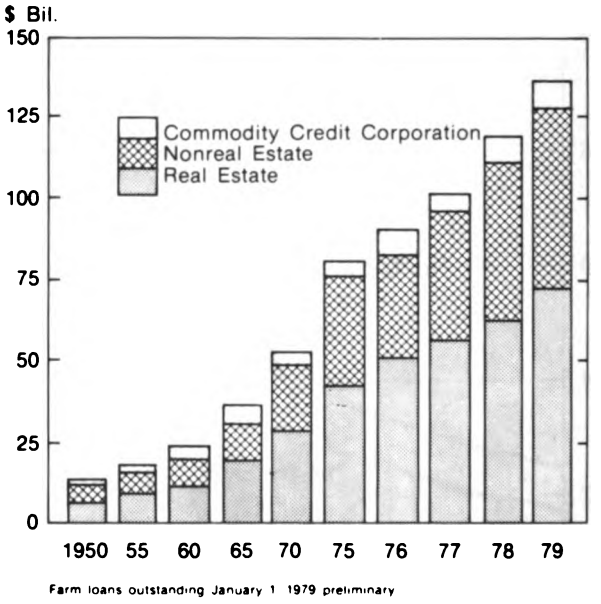
## U.S. Farm Balance Sheet




Data as of January 1. Data for 50 States beginning with 1960.

Chart 12

## Farm Debt




Farm loans outstanding January 1. 1979 preliminary

### U.S. Farm Balance Sheet

| | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|
| | *Billion dollars* | | | |
| Assets | 580.2 | 655.7 | 713.0 | 820.2 |
| Proprietors' equities | 489.4 | 553.1 | 593.7 | 682.7 |
| Liabilities | 90.8 | 102.6 | 119.3 | 137.5 |

Data as of January 1.

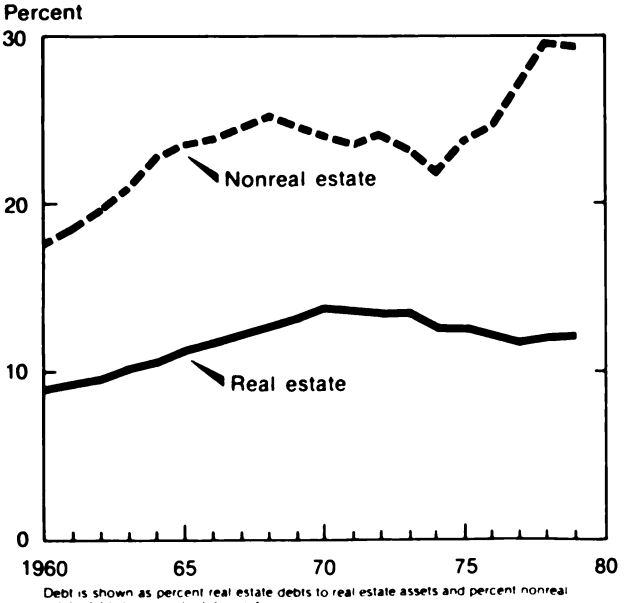
### Farm Debts as Percent of Assets

| | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|
| | *Percent* | | | |
| Real estate | 12.2 | 11.7 | 12.1 | 12.1 |
| Nonreal estate | 24.4 | 26.8 | 29.7 | 29.5 |

Data as of January 1.

Chart 13

## Farm Debts as Percent of Assets




Debt is shown as percent real estate debts to real estate assets and percent nonreal estate debts to nonreal estate assets.
Data as of January 1

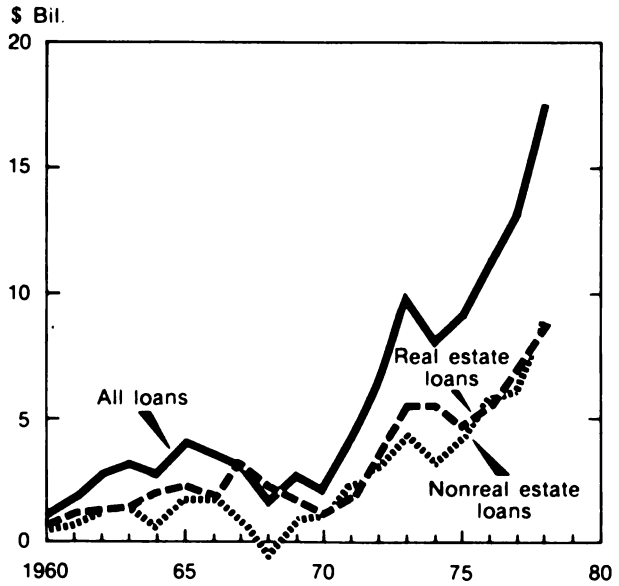
# ASSETS AND FINANCES

The average investment in farmland, machinery, livestock, and other assets per farm at the beginning of 1979 was $310,000—more than double in 1973, nearly triple that of 1970, and 13 times the investment in 1950. Indebtedness per farm increased at about the same rate as assets, going from $2,200 in 1950 to $52,100 at the beginning of 1979.

Capital gains on farm physical assets (change in value less net investment) have shown dramatic changes in the 1970's. The capital gains on farm real estate have greatly overshadowed those on other physical assets. Although capital gains on farm property are largely "unrealized" (not spendable income), they are an important part of the total wealth of the farming sector.

Chart 14

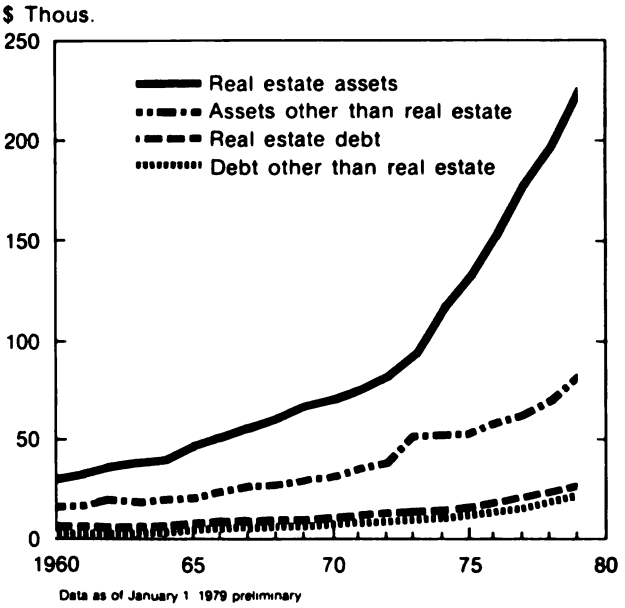
### Annual Change in Farm Debt




Difference between debt outstanding at beginning and end of year. Excludes Commodity Credit Corporation loans. 1979 preliminary.

Chart 15

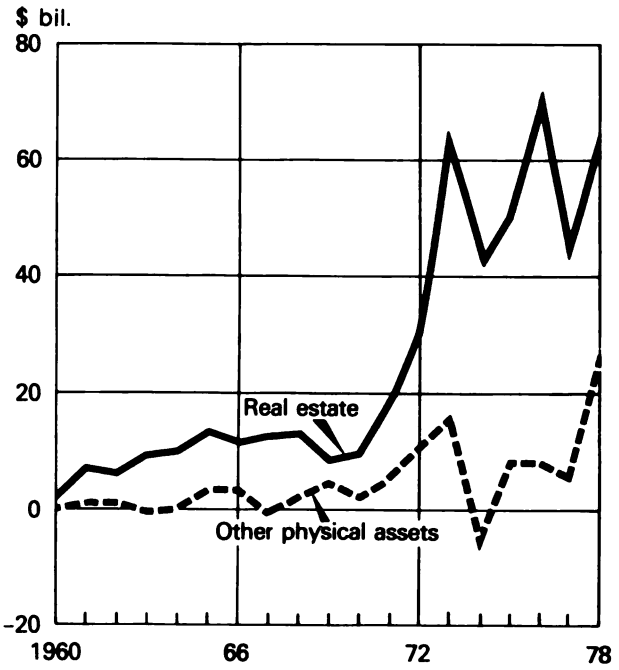
### Farm Assets and Debts per Farm




Data as of January 1. 1979 preliminary.

Chart 16

### Change in Farm Values Minus Yearly Improvements




Change in value less yearly improvements; mostly unrealized.
Other assets include machinery and motor vehicles, livestock and poultry, and crops stored on farms.

**Farm Assets and Debts Per Farm**

| | 1972 | 1973 | 1974 | 1975 |
|---|---|---|---|---|
| | *Thousand dollars* | | | |
| Assets: | | | | |
| Real estate | 83.8 | 94.7 | 117.3 | 133.2 |
| Nonreal estate | 38.9 | 45.2 | 53.9 | 53.9 |
| Debts: | | | | |
| Real estate | 11.3 | 12.6 | 14.8 | 16.7 |
| Nonreal estate | 9.4 | 10.4 | 11.8 | 12.8 |
| | 1976 | 1977 | 1978 | 1979[1] |
| | *Thousand dollars* | | | |
| Assets: | | | | |
| Real estate | 152.3 | 178.8 | 196.8 | 227.4 |
| Nonreal estate | 59.6 | 63.1 | 70.0 | 83.7 |
| Debts: | | | | |
| Real estate | 18.7 | 20.9 | 23.8 | 20.8 |
| Nonreal estate | 14.5 | 17.0 | 27.4 | 24.7 |

[1] Preliminary.

# ASSETS AND FINANCES

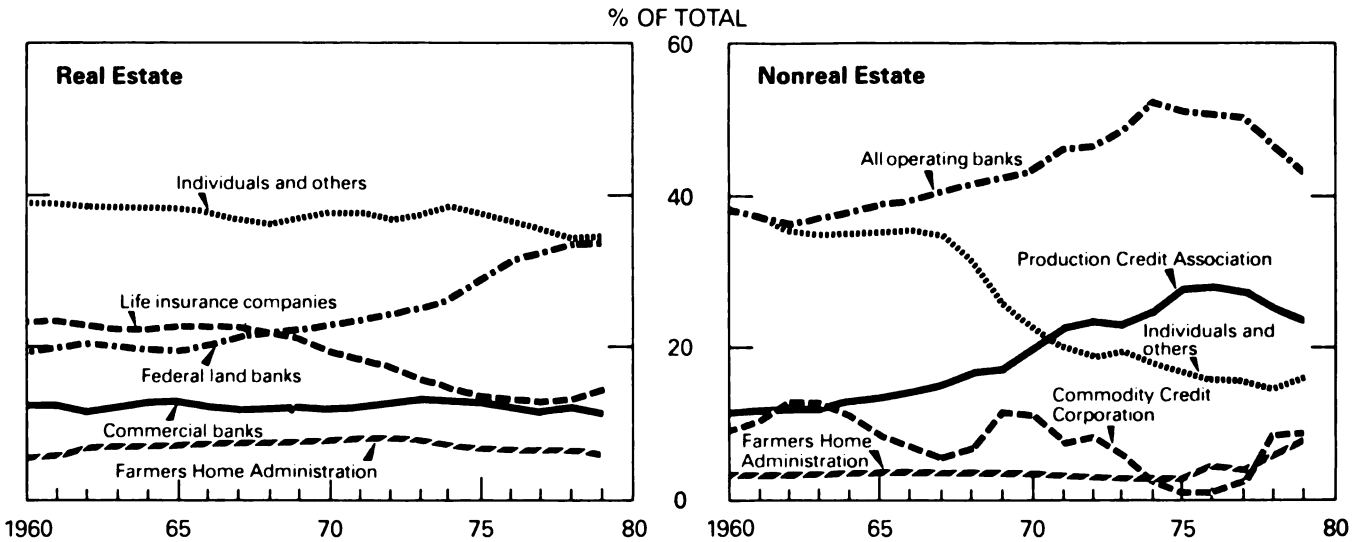
At the beginning of 1970, real-estate-secured debt made up a little over half of the total farm debt; nonreal-estate debt a little less than half; and Commodity Credit Corporation (CCC) price-support loans the remainder. In 1977 and 1978, the Federal Government increased its efforts to support prices and farm incomes, resulting in large increase in CCC loans.

The largest sources for real estate loans are Federal land banks and individuals and non-reporting creditors and others. Many of the latter are sellers of farms who provide loan funds to buyers. Banks and production credit associations are the largest sources of nonreal-estate loans.

---

Chart 17

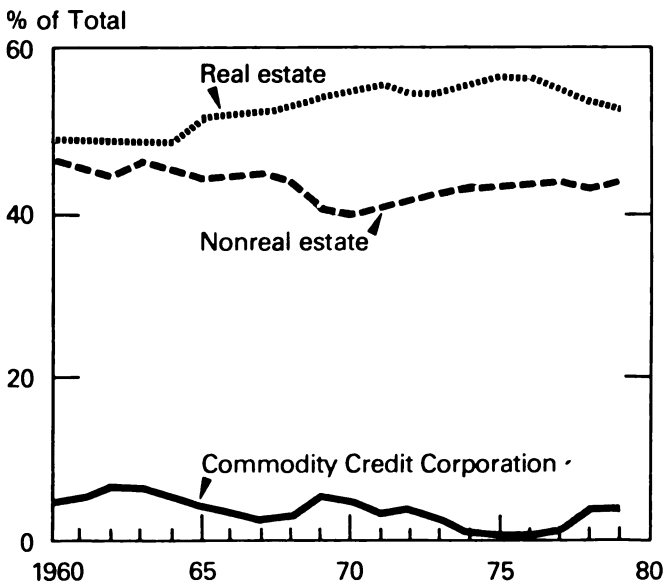
## Who Holds the Farm Debt




Production Credit Association includes Federal Intermediate Credit Bank loans to other financial institutions. 1979 preliminary

Chart 18

## Importance of the Three Kinds Of Farm Debt




**Importance of the Three Kinds of Farm Debt**

| | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|
| | | *Percent* | | |
| Real estate debt | 56.2 | 55.1 | 53.3 | 52.6 |
| Nonreal estate debt (excluding CCC) | 43.4 | 43.9 | 42.9 | 43.6 |
| CCC | 0.4 | 1.0 | 3.8 | 3.8 |

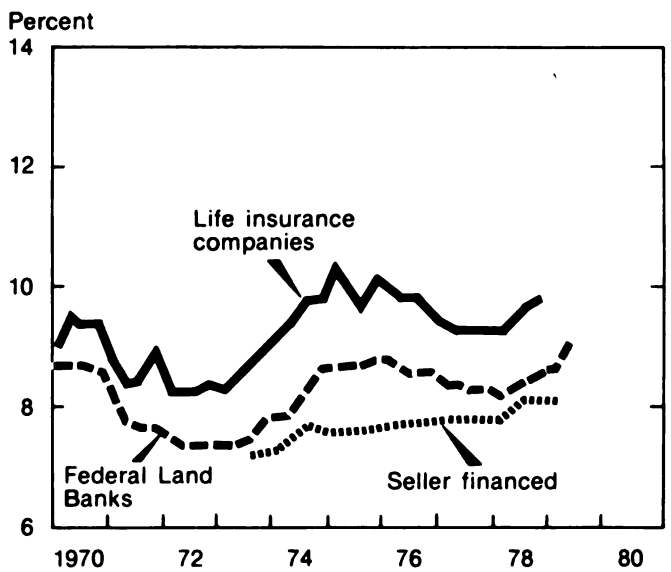
# ASSETS AND FINANCES

Interest rates on farm real estate loans increased in 1978 and rose even higher in 1979. Seller finance rates have been advancing but continue to lag rates of commercial lenders by 1 to 2 percentage points. Despite higher interest rates, farmers are still borrowing heavily for purchases of farm real estate and for other long-term needs.

Rates on nonreal estate farm loans reached record levels in 1978 and have continued to climb in 1979. Rates at banks and Production Credit Associations in early 1979 were 1½ to 2 percentage points above rates a year ago. Loan funds remain adequate at the higher rate. Improved farm incomes have encouraged greater short-term borrowings.

Chart 19

## Interest Rates on Farm Real Estate Loans




Quarterly data for life insurance companies (new commitments) and Federal Land Banks (new loans). Semiannual data for seller financed. Federal Land Bank rates do not include charge for the stock borrowers are required to buy

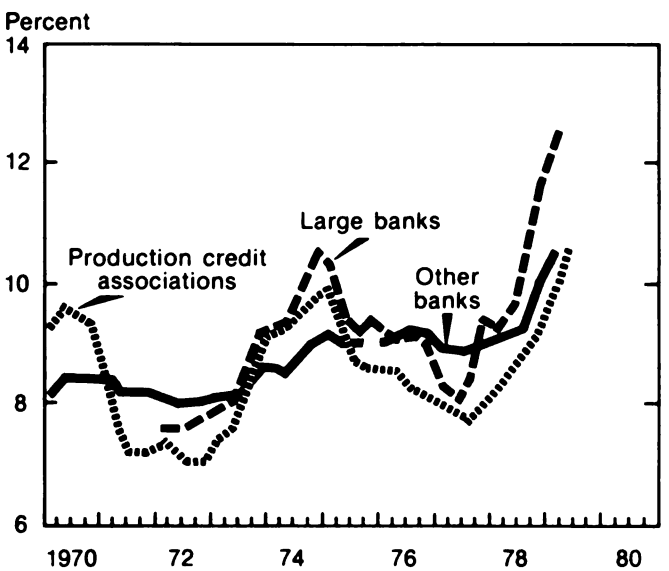
### Interest Rates on Farm Real Estate Loans

| | Federal Land Banks | Life insurance companies | Seller-financed |
|---|---|---|---|
| | | *Percent* | |
| 1977: | | | |
| I | 8.4 | 9.4 | 7.8 |
| II | 8.4 | 9.3 | |
| III | 8.3 | 9.3 | 7.8 |
| IV | 8.3 | 9.3 | |
| 1978: | | | |
| I | 8.2 | 9.3 | 7.8 |
| II | 8.3 | 9.5 | |
| III | 8.4 | 9.7 | 8.1 |
| IV | 8.6 | 9.8 | |
| 1979: | | | |
| I | 8.7 | --- | 8.1 |
| II | 9.0 | --- | |

--- = not available.

Chart 20

## Interest Rates on Nonreal Estate Farm Loans




Rates on PCA loans include service fees. Bank data starting in 1977 are from surveys made by the Federal Reserve System. The data for prior years relate to different groupings of banks, collected by the Federal Reserve System and the Federal Reserve Bank of Minneapolis

### Interest Rates on Nonreal Estate Farm Loans

| | Production credit associations | Large money center banks | Other banks |
|---|---|---|---|
| | | *Percent* | |
| 1977: | | | |
| I | 8.05 | 8.3 | 8.9 |
| II | 7.9 | 8.1 | 8.9 |
| III | 7.8 | 8.4 | 8.9 |
| IV | 7.9 | 9.4 | 9.0 |
| 1978: | | | |
| I | 8.3 | 9.3 | 9.1 |
| II | 8.6 | 9.6 | 9.2 |
| III | 8.9 | 10.4 | 9.3 |
| IV | 9.2 | 11.7 | 10.0 |
| 1979: | | | |
| I | 9.9 | 12.5 | 10.4 |
| II | 10.6 | --- | --- |

--- = not available.

# ASSETS AND FINANCES

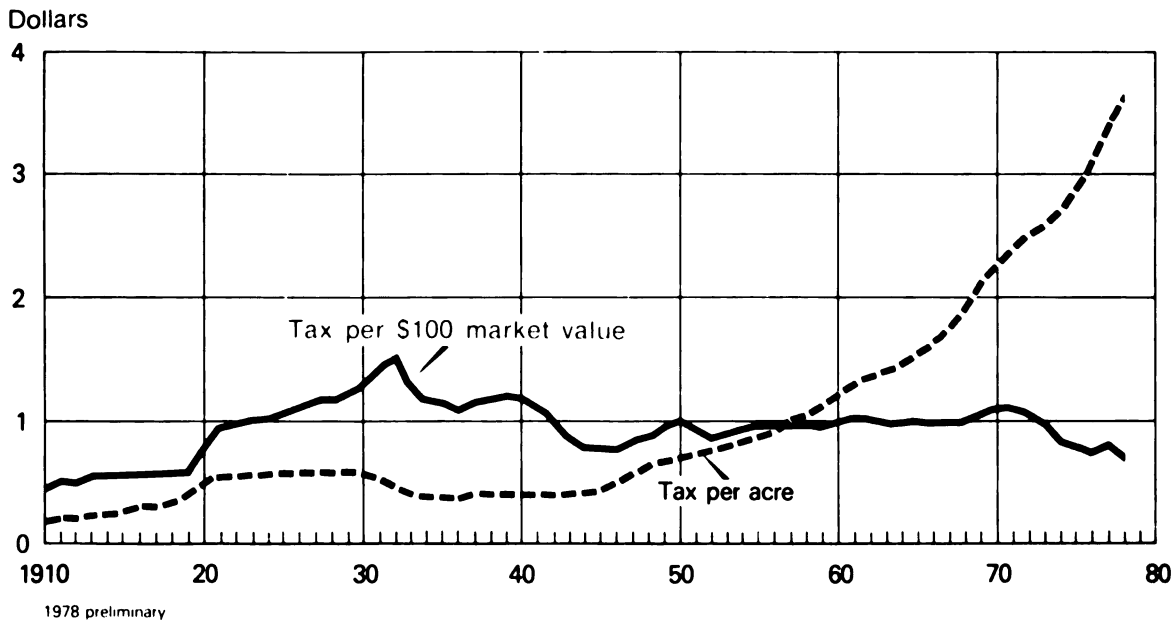
Farm real estate taxes went up again in 1978, with per acre payments rising to about $3.65, according to preliminary estimates. In 1977, taxes per acre were $3.40, up from $1.93 in 1968. As the chart shows, taxes per $100 of full value have remained fairly constant. But assessments have risen substantially along with farmland values. Thus, tax payments have also increased.

The Tax Reform Act of 1976 contained several changes that affect estate taxation on farm properties. One of the most important revisions permitted real property in estates devoted to farming to be valued for estate tax purposes at its use value instead of its fair market value.

---

Chart 21

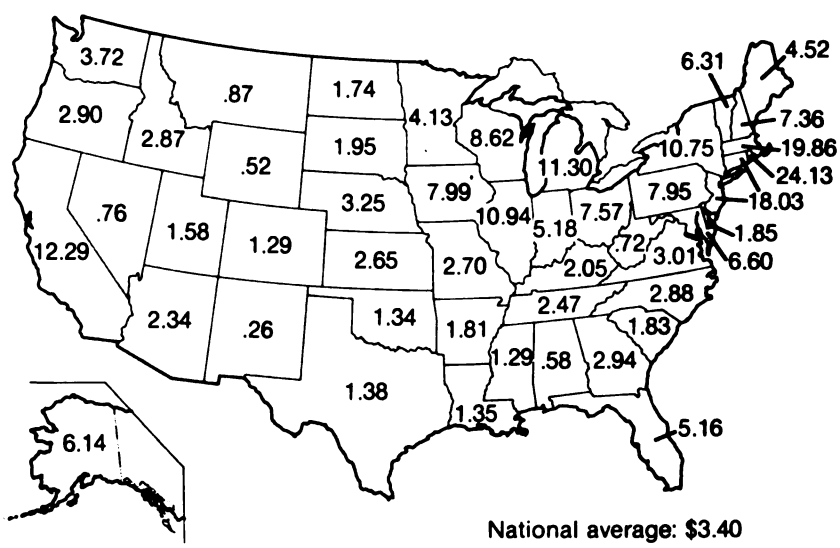
## Farm Real Estate Taxes




1978 preliminary

Chart 22

## Farm Real Estate Taxes per Acre, 1977




National average: $3.40

Data is preliminary.

# ASSETS AND FINANCES

The index of farm real estate value per acre increased by 88 percent in the past 5 years and 211 percent in the past 10 years.

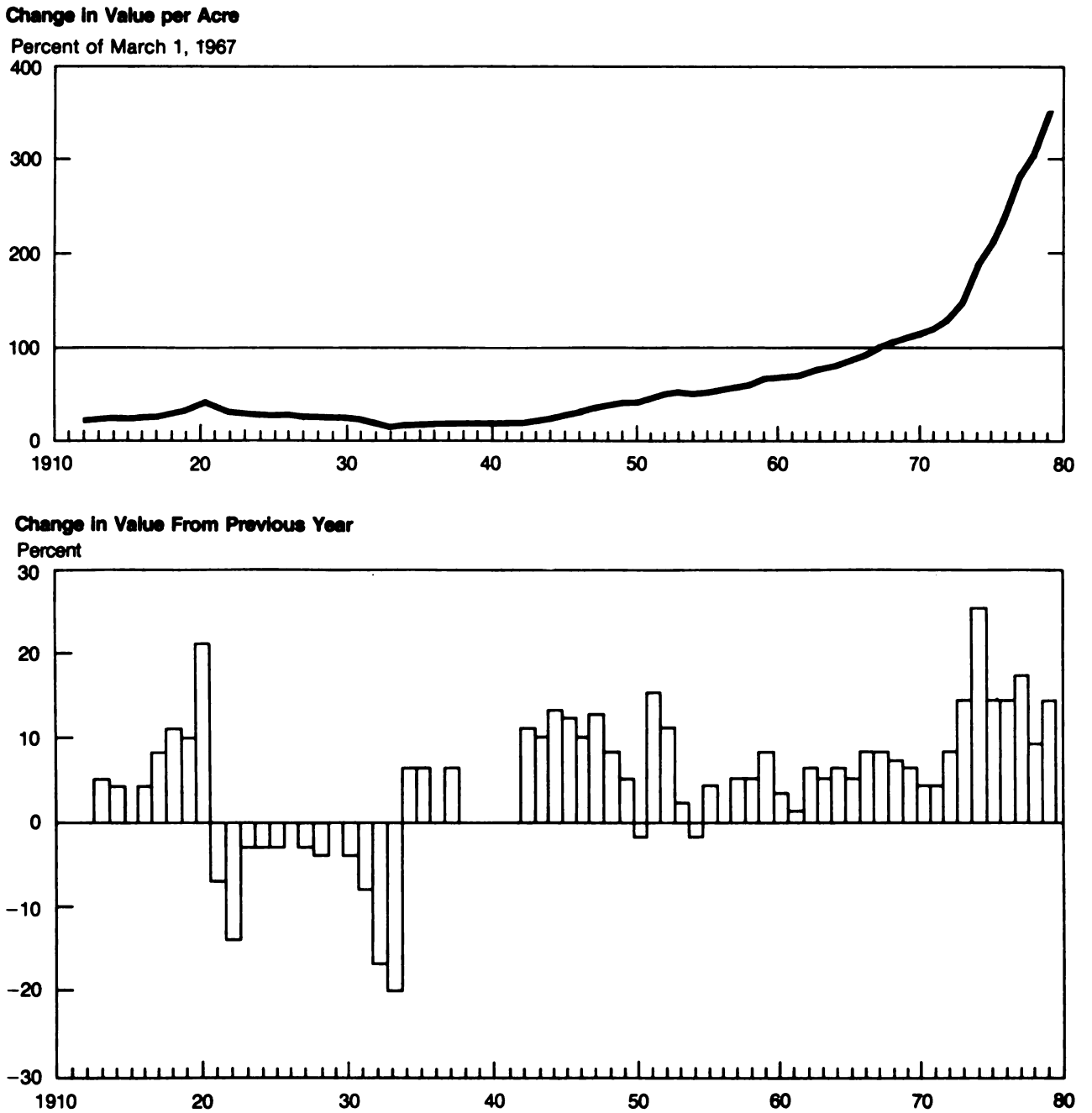
Farmland values climbed an average of 14 percent for the year ending February 1, 1979, compared with 9 percent for the previous year. This reflects the growth in 1978 net farm income—about 40 percent over the 1977 levels—as well as the higher general inflation rate.

Farmland prices have now risen 13 percent or more during 6 of the last 7 years. With another strong income year in prospect and with continuing price inflation, a repeat of last year's performance seems likely.

---

Chart 23

## Change in Farm Real Estate Values




Reported as of March 1, 1912-75 and February 1, 1976, to date. Excludes Alaska and Hawaii. Data unavailable prior to 1912.

# PRICES

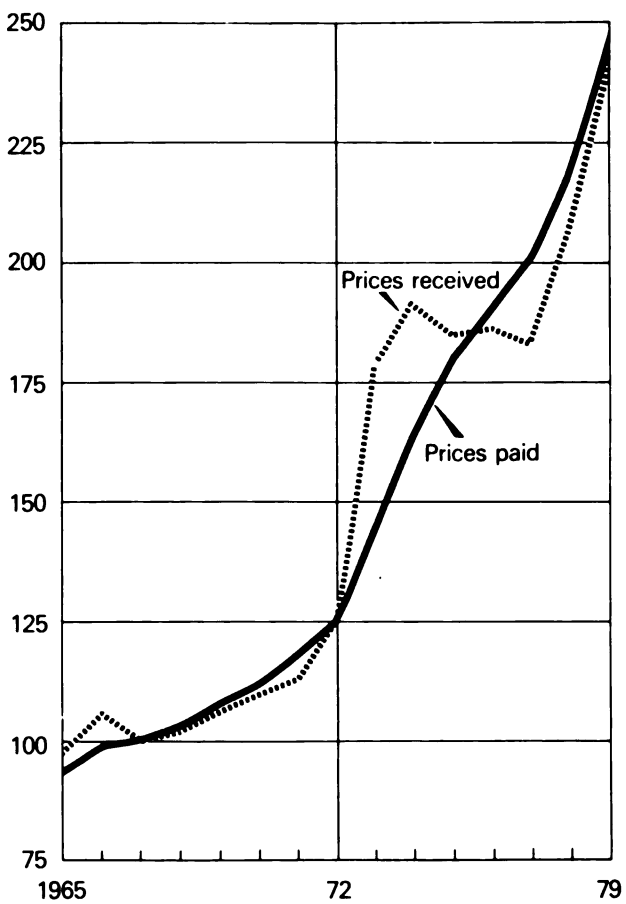
Prices received by farmers in 1978 increased 14 percent, following a 4-year downward slide. The growth rate increased further in 1979, thanks to strong foreign demand that buttressed prices for most crops. Corn and wheat, for example, should round out 1979 with the highest average farm prices since 1972. Cotton, on the other hand, may not fare as well as last year.

Livestock prices picked up in 1979, mainly reflecting rising beef prices—the result of tapering output and quickening demand. Hog prices backed off with the large increases in pork production.

Prices paid by farmers in 1978 went up by more than 8 percent.

Chart 24

## Prices Received and Paid By Farmers




Prices paid includes commodities and services, interest, taxes, and wage rates. 1979 forecast.

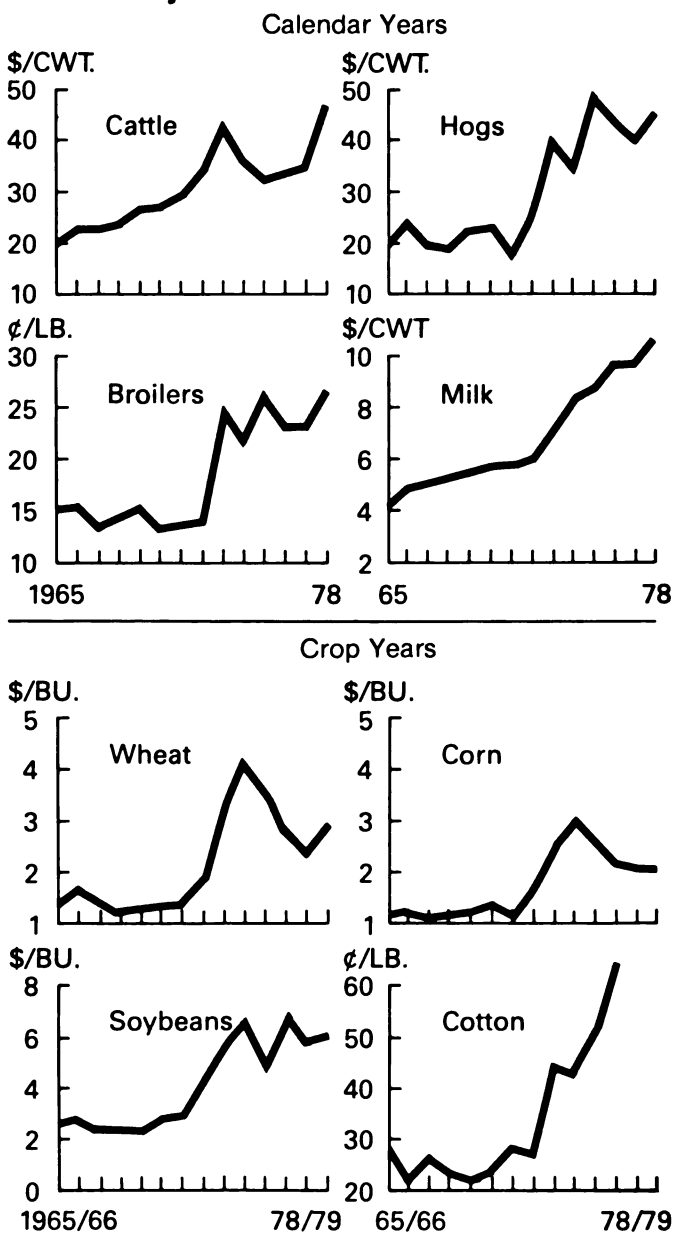
**Prices Received and Paid by Farmers**

| | 1972 | 1973 | 1974 | 1975 |
|---|---|---|---|---|
| | *Percentage of 1967* | | | |
| Prices received | 186 | 183 | 210 | 242 |
| Farm products: | | | | |
| Crops | 197 | 192 | 204 | 221 |
| Livestock | 177 | 175 | 217 | 262 |
| Prices paid[1] | 192 | 202 | 219 | 244 |

[1] Includes commodities and service, interest, taxes, and wage rates. [2] January-July average.

Chart 25

## Prices Received by Farmers For Major Commodities




1978 and 1978/79 preliminary.

# PRICES

Prices paid by farmers in 1979 increased more rapidly than a year earlier. Prices for production items advanced at a faster rate than prices for family living. Interest and wage rate hikes outstripped other price increases.

Labor inputs have declined a third since 1967, while farm real estate has remained fairly constant. Use of agricultural chemicals, mainly fertilizer, dropped slightly in 1978.

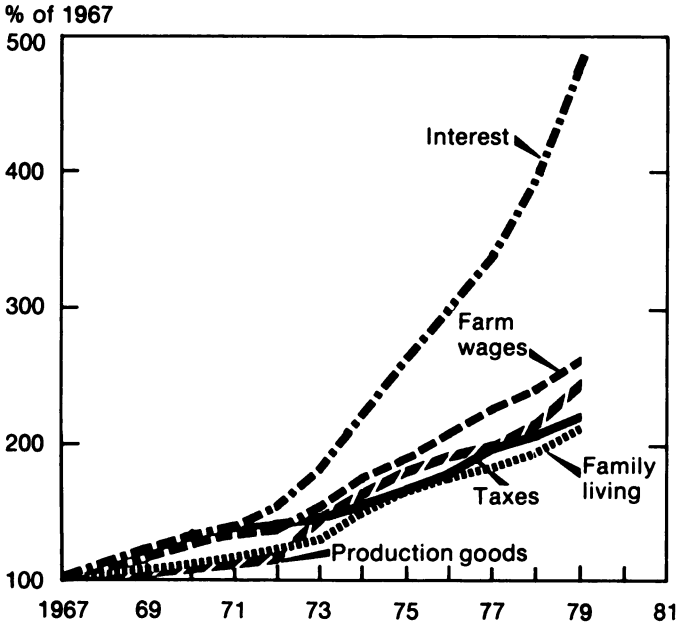
However, fertilizer use in 1979 is expected to return to at least the 1977 level—which was an all-time high.

Machinery inputs increased, substituting for labor. The average horsepower of tractors on farms has risen from 33 in 1960 to 56 in 1978.

---

Chart 26

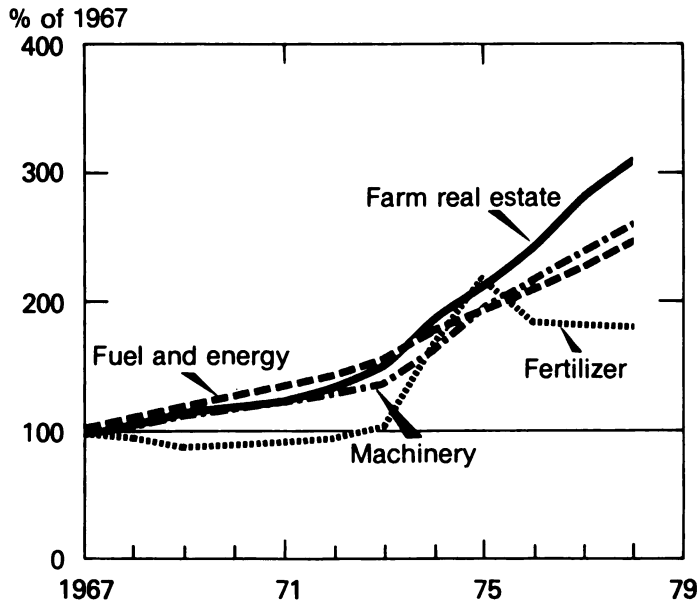
## Prices Farmers Pay




1979 January-July average. Taxes include State and local property taxes on farm real estate.

Chart 27

## Prices of Selected Farm Inputs




1979 preliminary.

### Prices Farmers Pay

| | 1975 | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|---|
| | *Percentage of 1967* | | | | |
| Production | 182 | 193 | 200 | 216 | 240 |
| Interest[2] | 262 | 299 | 339 | 396 | 487 |
| Taxes[3] | 166 | 178 | 195 | 207 | 221 |
| Farm wage rates | 192 | 210 | 226 | 242 | 262 |

[1] January-May average. [2] Interest on farm real estate debt. [3] Taxes on farm real estate.

### Prices of Selected Farm Inputs

| | 1972 | 1973 | 1974 | 1975 |
|---|---|---|---|---|
| | *Percentage of 1967* | | | |
| Wage rates | 142 | 155 | 178 | 192 |
| Fertilizer | 94 | 102 | 167 | 217 |
| Farm machinery[1] | 128 | 137 | 161 | 195 |
| Farm real estate | 132 | 150 | 187 | 213 |

| | 1976 | 1977 | 1978 | 1979[2] |
|---|---|---|---|---|
| | *Percentage of 1967* | | | |
| Wage rates | 210 | 226 | 242 | 262 |
| Fertilizer | 185 | 181 | 180 | 185 |
| Farm machinery[1] | 217 | 238 | 259 | 277 |
| Farm real estate | 242 | 283 | 308 | 351 |

[1] Tractors and self-propelled machinery. [2] January-May average.

# INPUTS

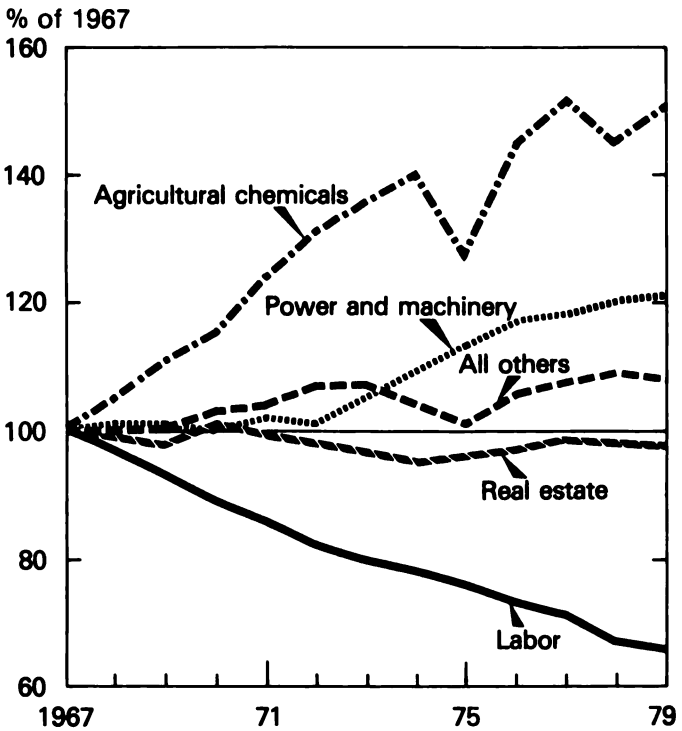
Prices of most farm inputs in 1979 increased at a faster rate than those a year earlier. Fuel and energy prices far outstripped most other inputs, increasing 20 percent.

Real estate continued the rapid upward trend of recent years, increasing 14 percent from February 1979.

Price advances for tractors and self-propelled machinery in 1979 failed to slow from recent rates, while fertilizer prices strengthened after 3 years of decline.

Chart 28

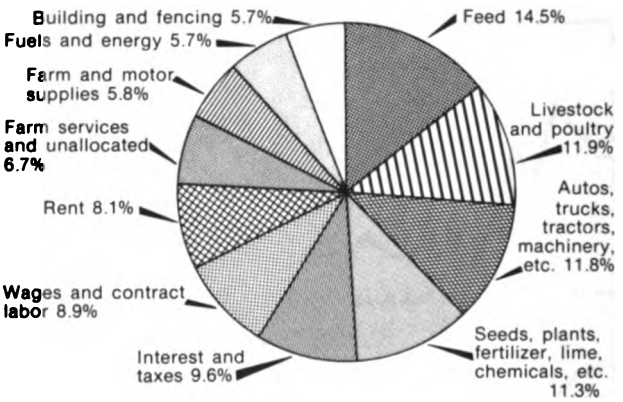
## Use of Selected Farm Inputs




1979 preliminary.

Chart 29

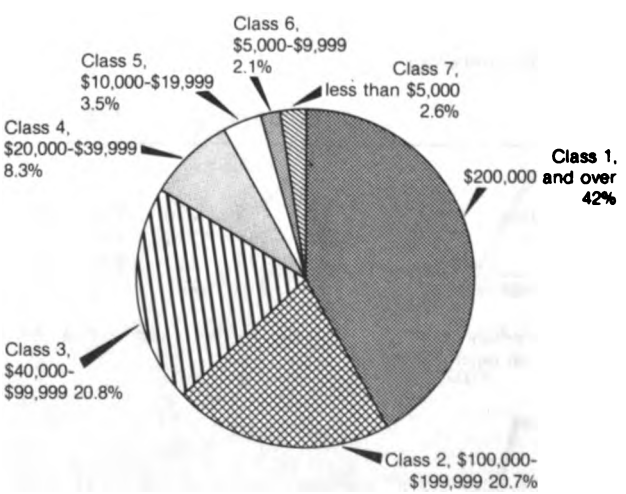
## Farm Production Expenditures




Major expenditures as percentage of total 1978 data

Chart 30

## Farm Production Expenditures By Size of Sales




1978 data

**Use of Selected Farm Inputs**

| | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|
| | *Percentage of 1967* | | | |
| Total inputs | 103 | 104 | 103 | 103 |
| Labor | 73 | 71 | 67 | 66 |
| Farm real estate | 97 | 99 | 98 | 98 |
| Mechanical power and machinery | 117 | 118 | 120 | 121 |
| Agricultural chemicals | 145 | 151 | 145 | 151 |
| All other inputs | 106 | 107 | 108 | 106 |

[1] Preliminary.

# INPUTS

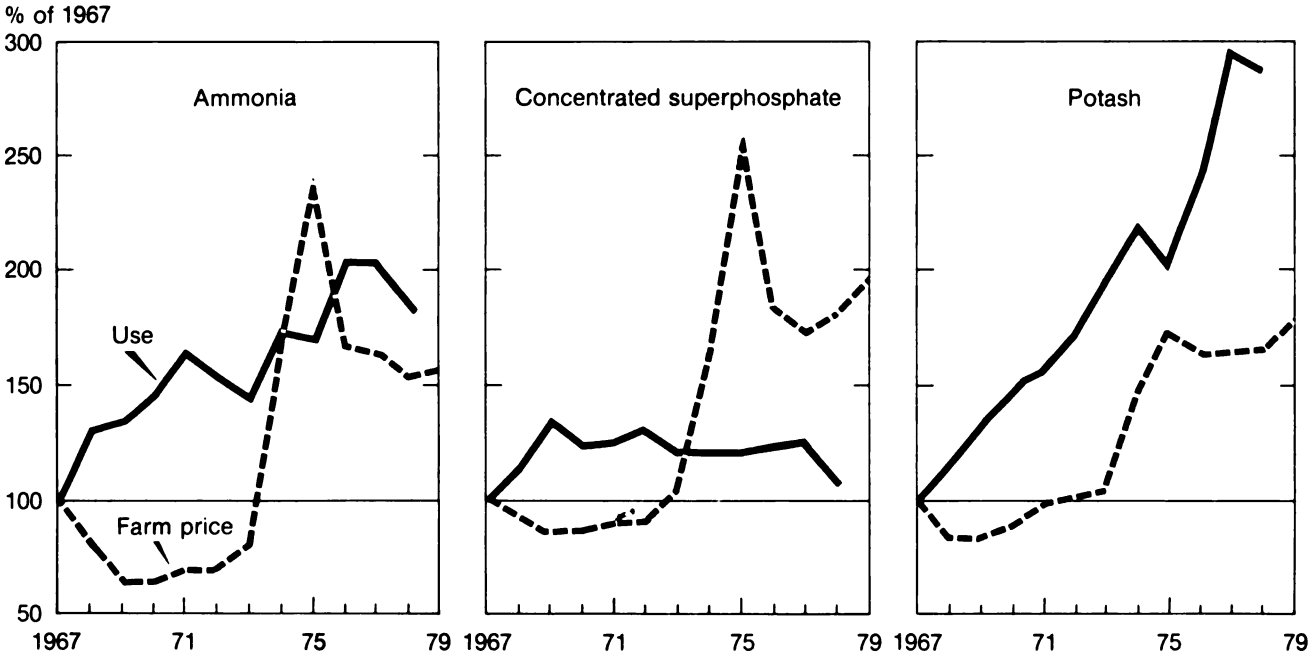
The domestic fertilizer outlook for 1980 and 1981 calls for adequate supplies, modest price increases in nitrogenous materials, and significant hikes for phosphatics and potassics. Total use will continue to grow, but short-term factors such as weather, price and income ratios, and governmental policies will be influential.

The excess nitrogen production capacity of 1978 and 1979 will persist through fiscal 1980 and 1981. Rising production costs and competition from imports will limit domestic production.

Phosphate supplies will be adequate, but strong export demand will result in a close supply-demand balance for phosphates.

Chart 31

**Fertilizer Use and Prices**




Use: fiscal year ended June 30. Retail price: April 15 through 1976; average of March and May 15, 1977 and 1978.

**Fertilizer Use and Prices**

| | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|---|---|
| | | | | *Thousand tons* | | | | |
| Use:[1] | | | | | | | | |
| Anhydrous ammonia[2] | 3,636.2 | 3,408.5 | 4,178.8 | 4,016.6 | 4,934.6 | 4,927.2 | 4,538.0 | -- |
| Concentrated superphosphate | 1,248.9 | 1,180.7 | 1,174.9 | 1,158.9 | 1,206.3 | 1,233.3 | 1.970.5 | -- |
| Potash | 2,445.6 | 2,829.5 | 3,256.6 | 2,996.2 | 3,745.2 | 4,391.8 | 4,290.5 | -- |
| | | | | *Dollars/ton* | | | | |
| Price:[3] | | | | | | | | |
| Anhydrous ammonia | 80.00 | 87.60 | 183.00 | 265.00 | 191.00 | 188.00 | 174.00 | 177.00 |
| Concentrated superphosphate | 78.00 | 87.50 | 150.00 | 214.00 | 158.00 | 147.00 | 152.00 | 167.00 |
| Potash | 58.80 | 61.50 | 81.30 | 102.00 | 95.90 | 96.35 | 97.40 | 110.00 |

[1] For fiscal years ended June 30. [2] In 48 States. [3] As of April 15 through 1976; average of March and May 15 for 1977, 1978, and 1979

-- = not available.

# INPUTS

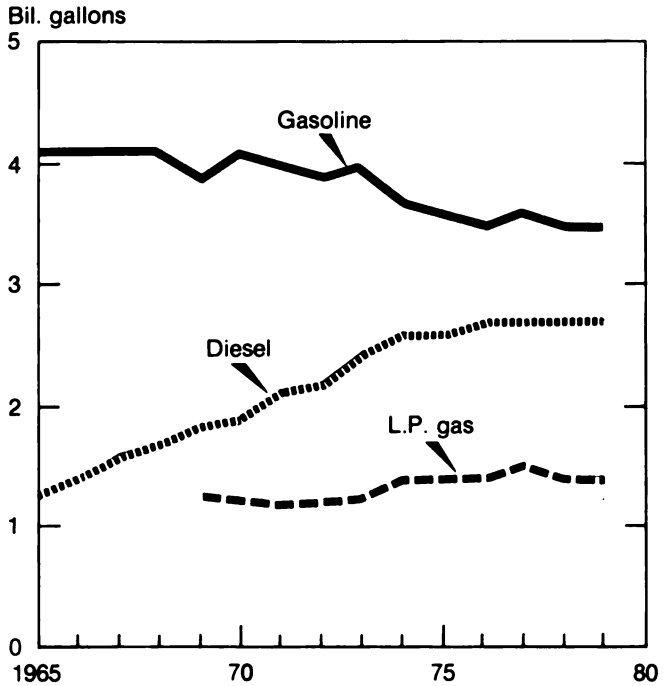
Corn uses more total energy than any other crop, but based on per-acre requirements for energy, cotton is No. 1. That's partly because cotton production has exceptional needs for pesticides, which use large amounts of energy.

The use of diesel fuel is on the uptrend, as farmers replace old gasoline and LP-powered machines with more energy-efficient diesel-powered machinery. On the whole, energy use at the farm level is increasing very slowly.

Despite the spiraling costs of energy, a move back to labor-intensive agriculture appears highly unlikely: Labor costs 880 times more than electricity in terms of work performed per hour.

Chart 32

## Farm Fuel Use




**Farm Fuel Use**

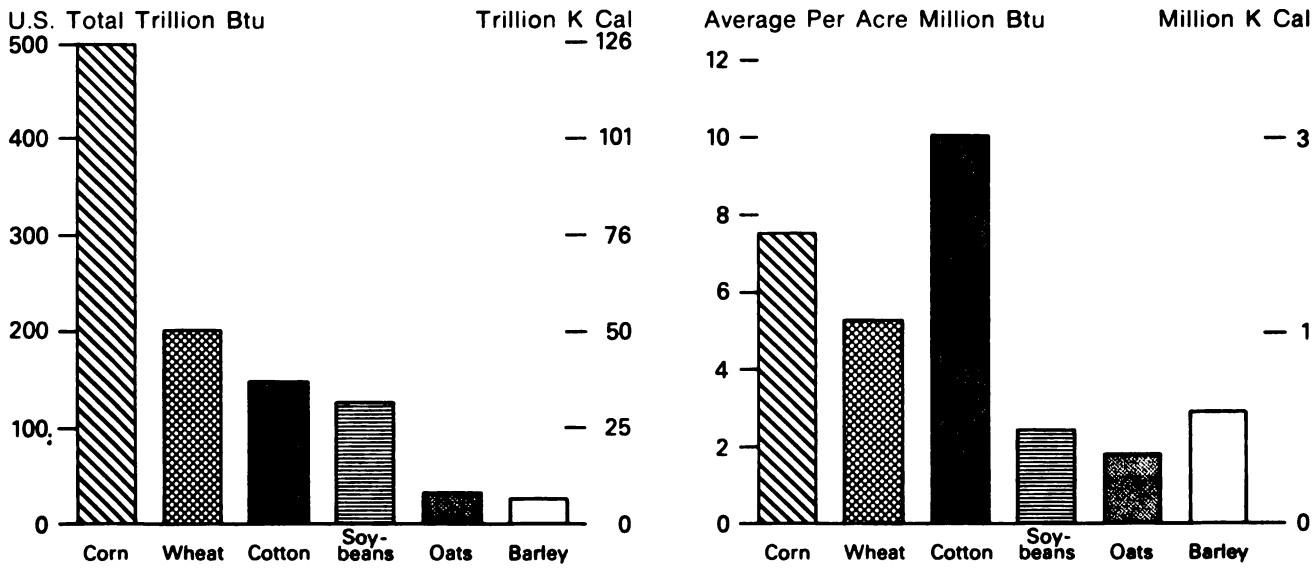
| | 1972 | 1973 | 1974 | 1975 |
|---|---|---|---|---|
| | | *Billion gallons* | | |
| Gas | 3.9 | 4.0 | 3.7 | 3.6 |
| Diesel | 2.2 | 2.45 | 2.6 | 2.8 |
| Liquefied petroleum gas | — | 1.25 | 1.2 | 1.05 |
| | 1976 | 1977[1] | 1978[1] | 1979[1] |
| | | *Billion gallons* | | |
| Gas | 3.7 | 3.75 | 3.5 | 3.5 |
| Diesel | 2.9 | 3.0 | 2.7 | 2.7 |
| Liquefied petroleum gas | 1.1 | 1.3 | 1.4 | 1.4 |

[1] Estimated.

— = not available.

Chart 33

## Energy Use by Crop, U.S. Total and Average per Acre




1974 data. Kilocalorie is the metric energy measurement comparable to Btu, 1 K Cal = 4 Btu.

# INPUTS

In 1979, agriculture felt the same crunch from rising petroleum prices as the rest of the economy. One exception was diesel fuel: prices were held down by the diesel fuel allocation program for crop planting. But in general, the rate of price increase for petroleum-based fuels subsided in the second half of 1979.

Prices for electricity and natural gas took an upward turn because of actions by the OPEC countries. However, there should be no problems in getting adequate supplies of natural gas and electricity for the rest of 1979.

Based on supply and demand projections by the Department of Energy, homeowners have an adequate supply of fuel oil, and farmers will have enough diesel fuel for harvesting.

Chart 34

## Energy Prices Paid by Farmers

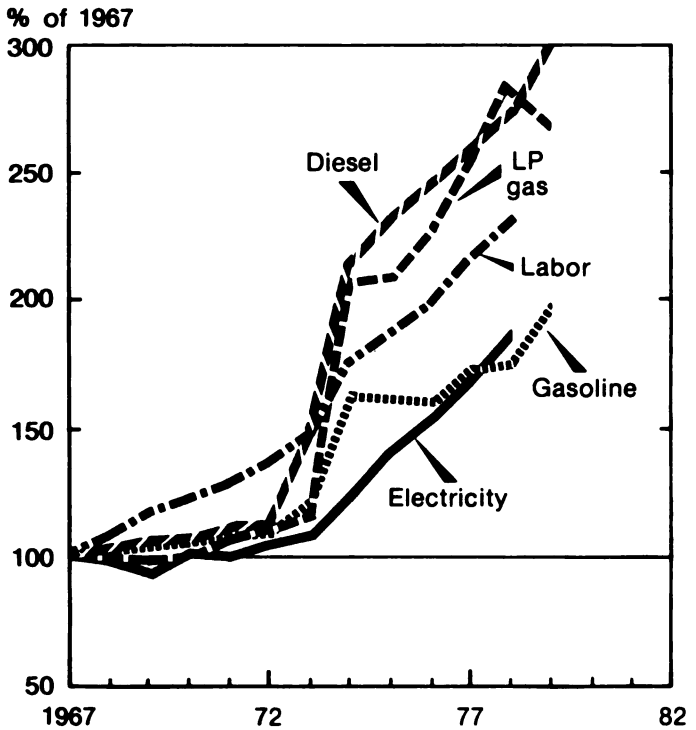
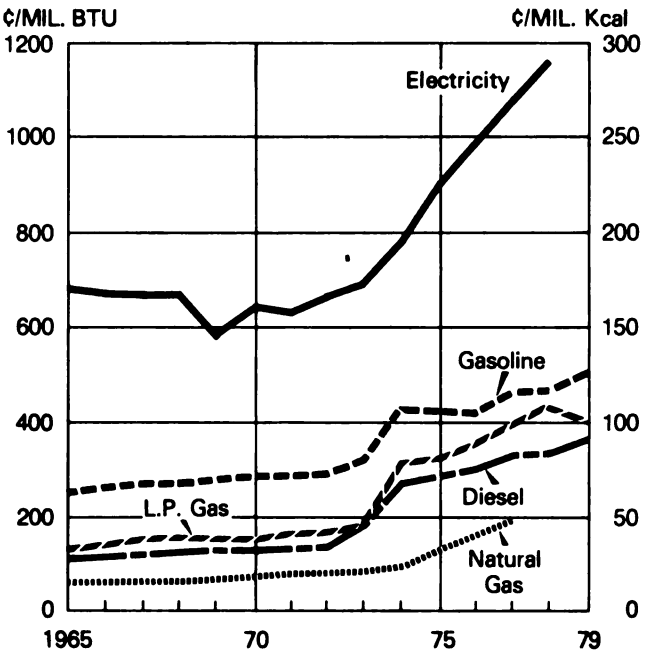



Chart 35

## Energy Prices Per BTU Paid by Farmers




1 Kcal = 4 BTU

### Energy Prices Paid by Farmers

| | 1975 | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|---|
| | | | *Cents/gallon* | | |
| Gasoline (bulk) | 49.8 | 53.7 | 56.9 | 59.7 | 68.1 |
| Diesel | 39.1 | 41.6 | 44.9 | 46.2 | 54.0 |
| Liquefied petroleum gas | 31.1 | 34.5 | 38.9 | 40.4 | 38.9 |
| | | | *Cents/10 KWH* | | |
| Electricity | 30.7 | 33.5 | 36.8 | 39.8 | --- |
| | | | *Dollars/hour* | | |
| Labor | 2.45 | 2.65 | 2.90 | 31.0 | --- |

[1] January-May average.

--- = not available.

### Energy Prices Per BTU Paid by Farmers

| | 1972 | 1973 | 1974 | 1975 |
|---|---|---|---|---|
| | | *Cents/million BTUs* | | |
| Gasoline | 285 | 320 | 430 | 426 |
| Diesel | 136 | 179 | 266 | 279 |
| LP gas | 164 | 178 | 318 | 320 |
| Electricity | 662 | 689 | 782 | 902 |
| Natural gas[1] | 73 | 79 | 95 | 129 |

| | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|
| | *Cents/million BTUs* | | | |
| Gasoline | 426 | 460 | 463 | 519 |
| Diesel | 295 | 325 | 327 | 361 |
| LP gas | 348 | 398 | 433 | 408 |
| Electricity | 982 | 1,078 | 1,166 | -- |
| Natural gas[1] | 160 | 197 | -- | -- |

[1] American Gas Association total average price.

-- = not available.

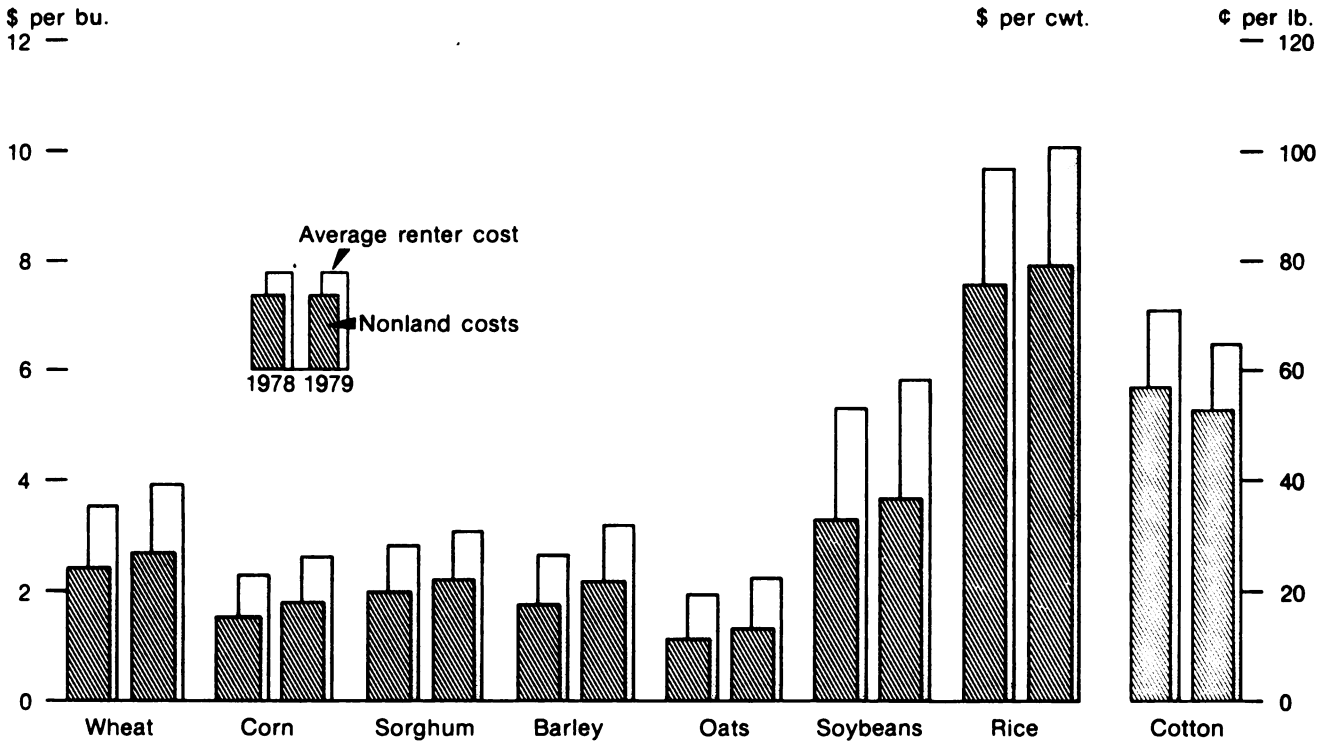
# INPUTS

Production costs, estimated on the basis of a planted acre, have been divided by planted acre yields to obtain the per-unit costs presented below. In year-to-year comparisons, per-acre costs and per-unit costs may move in opposite directions depending on yield levels.

The cost per unit excluding land is an estimate of variable costs for machinery ownership, general farm overhead, and management on a per-unit-of-production basis. The average renter cost shows a per-unit cost to the operator after the crop share or cash rent payment to a landlord. Costs for share renters and cash renters were weighted to get an average renter cost of production.

Chart 36

## Crop Production Costs




Value of wheat pasture subtracted from production costs (1978-1979, 6 cents/bushel).
Value of cotton seed subtracted from production costs (1978, 7 4 cents/pound of lint; 1979, 10 0 cents/pound). 1978 preliminary. 1979 projected.

### Crop Production Costs

| | Wheat | | Corn | | Sorghum | | Barley | |
|---|---|---|---|---|---|---|---|---|
| | 1978 | 1979 | 1978 | 1979 | 1978 | 1979 | 1978 | 1979 |
| | *Dollars per unit* | | | | | | | |
| Nonland cost | 2.40 | 2.70 | 1.53 | 1.80 | 2.00 | 2.24 | 1.79 | 2.18 |
| Average renter cost | 3.56 | 3.98 | 2.27 | 2.67 | 2.81 | 3.11 | 2.64 | 3.20 |

| | Oats | | Soybeans | | Rice | | Cotton | |
|---|---|---|---|---|---|---|---|---|
| | 1978 | 1979 | 1978 | 1979 | 1978 | 1979 | 1978 | 1979 |
| | *Dollars per unit* | | | | | | | |
| Nonland cost | 1.17 | 1.35 | 3.37 | 3.72 | 7.57 | 7.91 | .570 | .528 |
| Average renter cost | 1.94 | 2.23 | 5.32 | 5.83 | 9.68 | 10.03 | .709 | .649 |

Value of wheat pasture subtracted from production costs (1978-79, 6 cents per bushel). 1978 preliminary, 1979 projected. Value of cottonseed subtracted from production costs (1978, 7.4 cents/pound of lint; 1979, 10 cents/pound).

# OUTPUTS

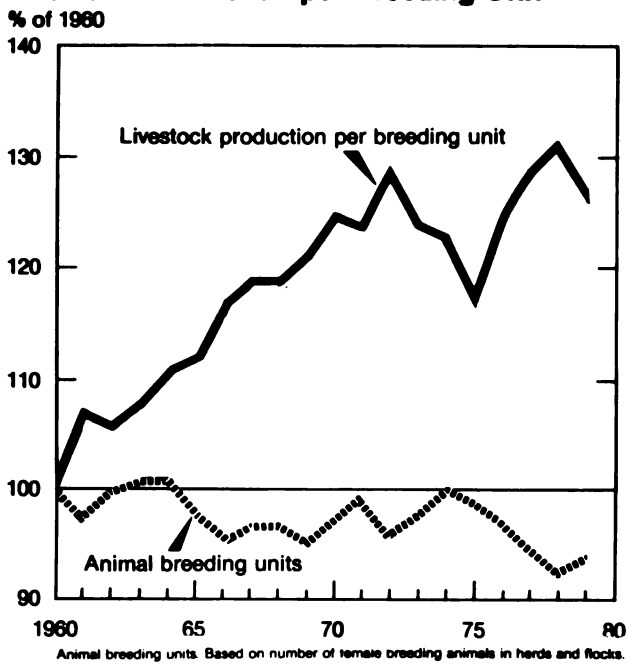
U.S. farm output for 1979 may be 3 percent above the records set in each of the previous 2 years. Increases in both crops and livestock production are contributing to the stepped-up output. Larger production of pork, poultry, and eggs more than offset the liquidation of cattle.

The number of animal breeding units in 1979 increased after 4 years of reduction. However, livestock production per animal unit exceeded the 1978 record.

Crop production is expected to be up nearly 5 percent in 1979. Cropland used for crops has rebounded to the 1977 level but is still only 3 percent above 1978. Crop output per acre in 1979 should set a new record.

Chart 37

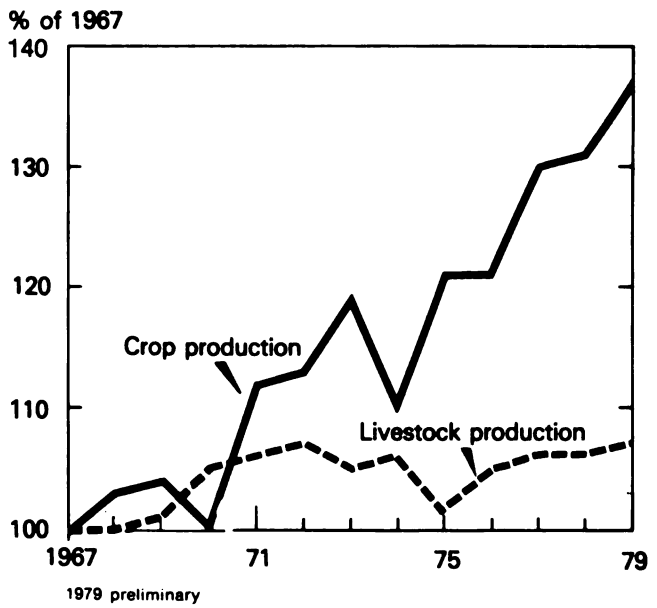
**Livestock Production per Breeding Unit**




Animal breeding units. Based on number of female breeding animals in herds and flocks.

Chart 38

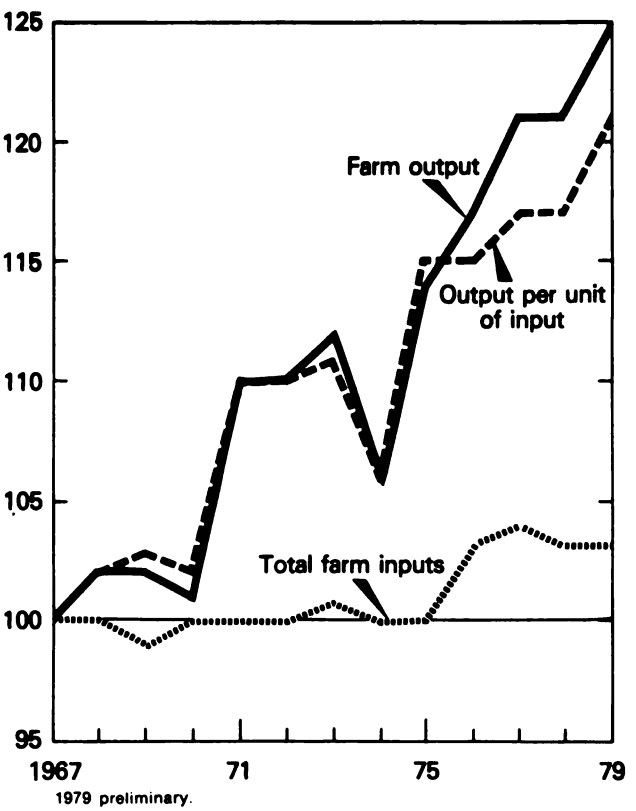
**Crop and Livestock Production**




1979 preliminary

Chart 39

**Farm Productivity**




1979 preliminary.

**Farm Output and Productivity**

| | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|
| | *Percentage of 1967* | | | |
| Farm output | 117 | 121 | 121 | 127 |
| Crop | 121 | 130 | 131 | 140 |
| Livestock | 105 | 106 | 106 | 107 |
| Farm inputs | 103 | 104 | 103 | 103 |
| Output per unit of input | 115 | 117 | 117 | 123 |
| Land use for crops | 109 | 111 | 108 | 111 |
| Crop production per acre | 111 | 117 | 121 | 126 |
| Animal breeding units | 100 | 98 | 96 | 97 |
| Livestock production per unit | 105 | 108 | 110 | 111 |

[1] Preliminary.
— = not available.

# FARMER COOPERATIVES

A 1975-76 survey found that there were 7,535 marketing, farm supply, and related service co-ops—110 fewer than in 1974-75. Much of the decrease was due to a continuing reorganization trend involving merger, consolidation, and acquisition.

Memberships in marketing, farm supply, and related service co-ops totaled 5,906,379 in 1975-76—a decrease of 3.5 percent from the 6,122,500 memberships reported for the previous year. The long-term trend has declined, reflecting the decreasing number of farmers in the United States.

The total net business volume of farmer co-ops amounted to $40.1 billion in 1975-76.

---

Definition of a Farmer Cooperative

For survey purposes, a cooperative is defined as one that meets the following requirements:

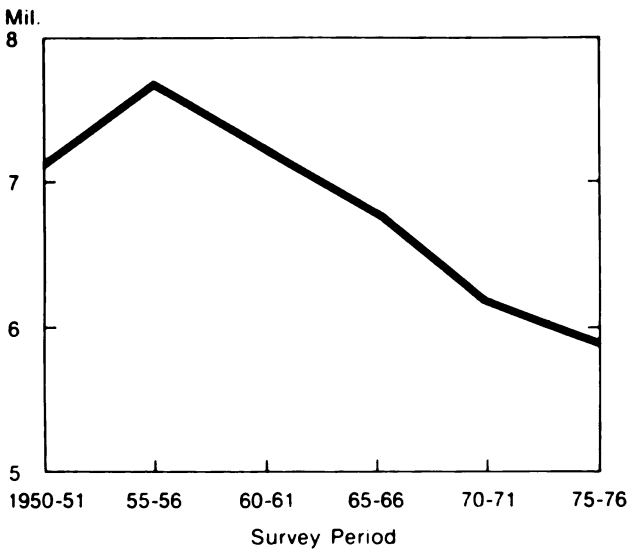
(1) Farmers or agricultural producers hold the controlling interest in the cooperative.

(2) No member of the cooperative is allowed more than one vote because of the amount of stock or membership capital he owns therein, or the cooperatives does not pay dividends on stock or membership capital in excess of 8 percent a year.

(3) The cooperative does not deal in products of nonmembers in an amount greater in value than it handles for its members.

Chart 40

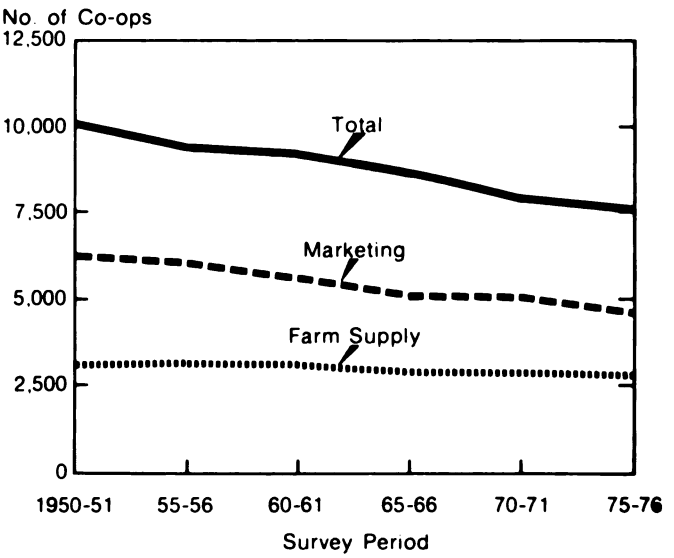
**Memberships in U.S. Farmer Cooperatives**




The membership includes duplication which cannot be eliminated using current reporting methods

Chart 41

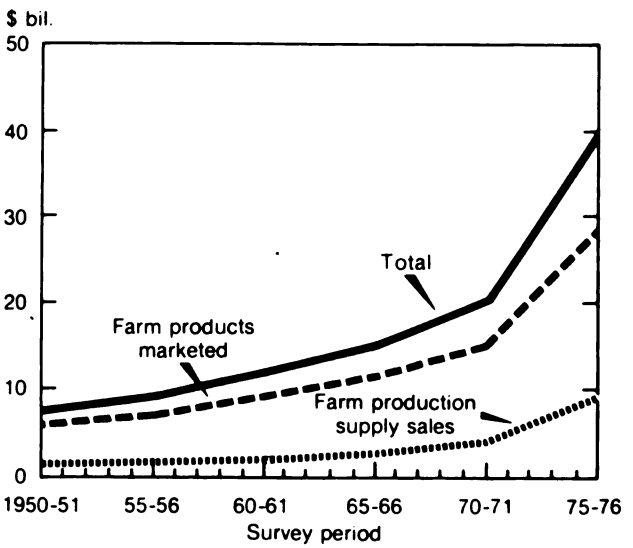
**Number of Farmer Cooperatives In the United States**




The total includes a small number of cooperatives that provide specialized services

Chart 42

**Business Volume of U.S. Farmer Cooperatives**




The total business volume is based on net business, excludes intercooperative sales but includes receipts for specialized services provided to members and patrons

# FARMER COOPERATIVES

The four most important farm commodities marketed by co-ops continue to be grain, dairy products, fruits and vegetables, and livestock and livestock products. In 1975-76, they accounted for 83 percent of the net sales of farm products.

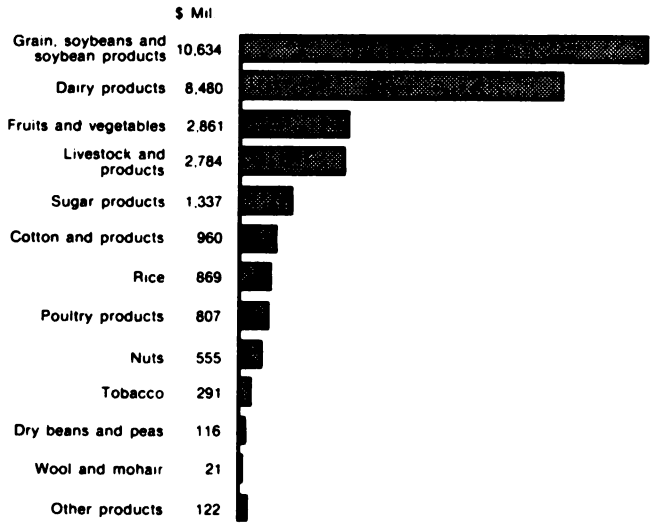
Three commodities still dominate production supply sales by co-ops—feed, fertilizer, and petroleum products. Together they accounted for 73 percent of total net supply sales in 1975-76.

Farm level market shares handled by co-ops have generally increased over the past 25 years. For farm products, the largest shares are contributed by dairy products, grain, fruits and vegetables, and cotton and cotton products.

---

**Chart 43**

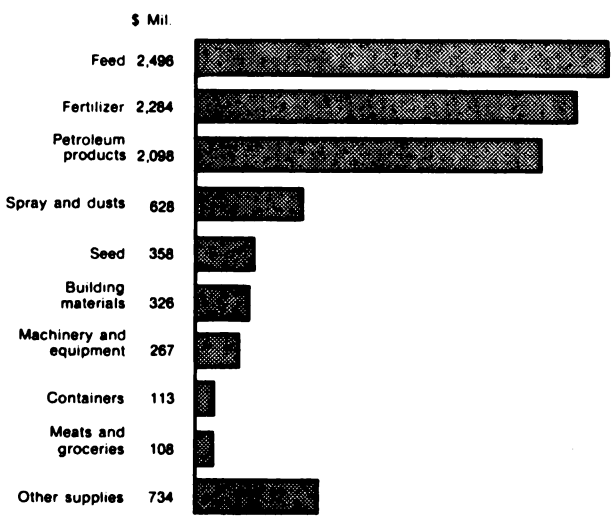
## Major Farm Products Marketed by Cooperatives




Total net marketing business = $29.8 billion. Based on 1975-76 survey data.

**Chart 44**

## Major Farm Supplies Handled by Cooperatives




Total Net Farm Supply Business = $9.4 billion. Based on 1975-76 survey data.

### U.S. Farmer Cooperatives' Share of the Farm Market

| | 1965-66 | | 1970-71 | | 1975-76[1] | |
|---|---|---|---|---|---|---|
| | No. | Pct. | No. | Pct. | No. | Pct. |
| Cooperatives marketing and percentage of cash receipts for: | | | | | | |
| Cotton and products | 572 | 32 | 528 | 26 | 519 | 26 |
| Dairy products | 1,273 | 65 | 847 | 71 | 579 | 74 |
| Fruits and vegetables | 577 | 32 | 475 | 26 | 436 | 30 |
| Grain and soybeans[2] | 2,696 | 36 | 2,741 | 35 | 2,713 | 40 |
| Livestock and products | 692 | 11 | 817 | 11 | 654 | 10 |
| Poultry products | 396 | 9 | 226 | 10 | 151 | 8 |
| Other[3] | 348 | 21 | 264 | 15 | 214 | 16 |
| Total[4] | 5,842 | 26 | 5,515 | 25 | 4,840 | 29 |
| Cooperatives purchasing and percentage of cash expenditures for: | | | | | | |
| Feed | 4,301 | 18 | 4,078 | 16 | 3,819 | 19 |
| Seed | 3,942 | 19 | 3,871 | 16 | 3,526 | 15 |
| Fertilizer and lime | 4,363 | 30 | 4,134 | 30 | 3,949 | 36 |
| Petroleum | 2,733 | 27 | 2,704 | 32 | 2,983 | 28 |
| Farm chemicals | 3,330 | 16 | 3,556 | 20 | 3,597 | 33 |
| Other supplies and equipment | 4,810 | 6 | 4,663 | 8 | 4,432 | 8 |
| Total[4] | 6,568 | 15 | 5,906 | 16 | 5,538 | 18 |

[1] Preliminary. [2] Includes rice, dry beans, and peas. [3] Includes tobacco, sugar products, peanuts, tree nuts, seed, and other specialty crops. [4] Adjusted for duplication of activities by many cooperatives.

# NATURAL RESOURCES



# LAND USE

The United States has a land area of 2,264 million acres, one out of 5 of these acres is grassland pasture, and one out of 3 is forest. Tundra, desert, swamps, and other miscellaneous areas also account for a large acreage. Less than 2 percent of the land area is urbanized.

About three-fifths of the land including a disproportinate share of the better agriculture land, is owned by individuals, estates, trusts, and corporations. More than 99 percent of the cropland and two-thirds of the pasture is privately owned. In comparison, large acreages of pasture, forest and miscellaneous land are publicly owned.

The use made of land is a function of both ownership and land quality. Nearly all land used

---

Chart 45

## Major Uses of Land

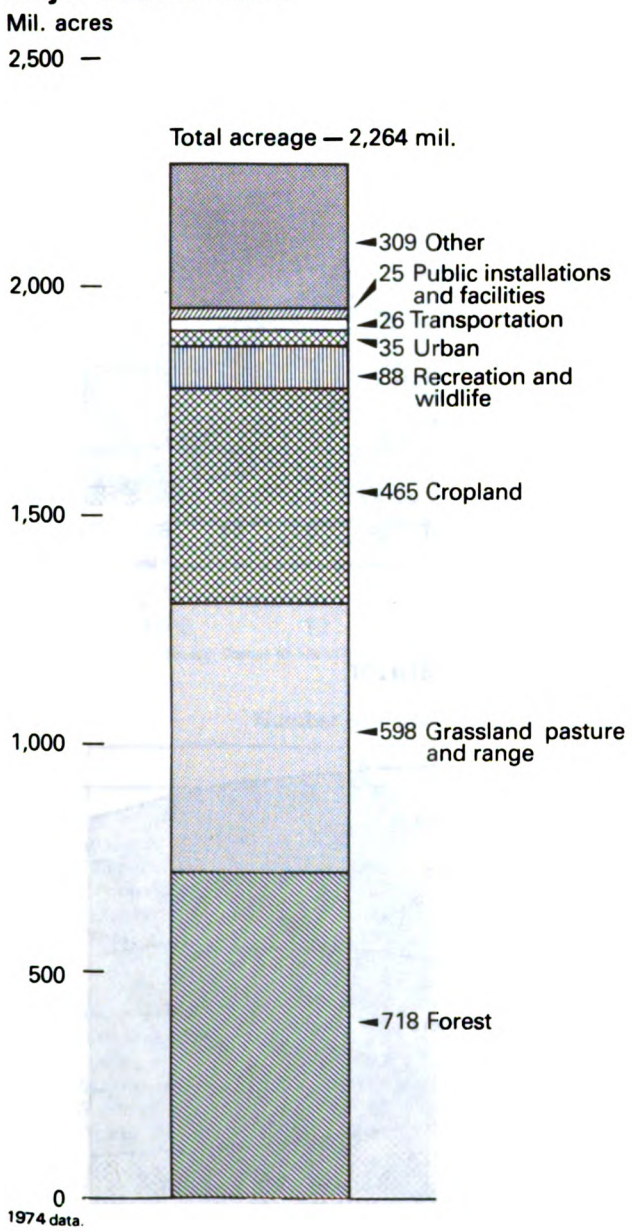



Chart 46

## Land Ownership in the United States

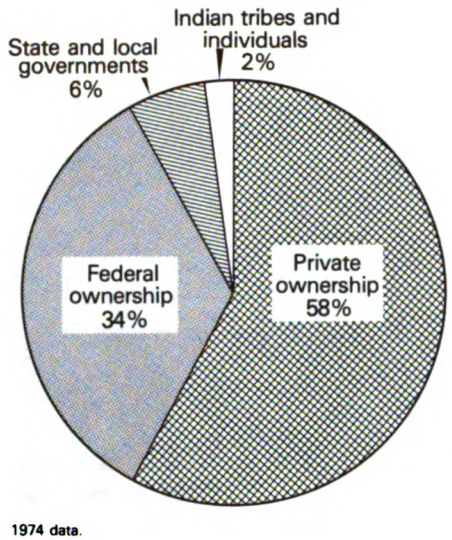
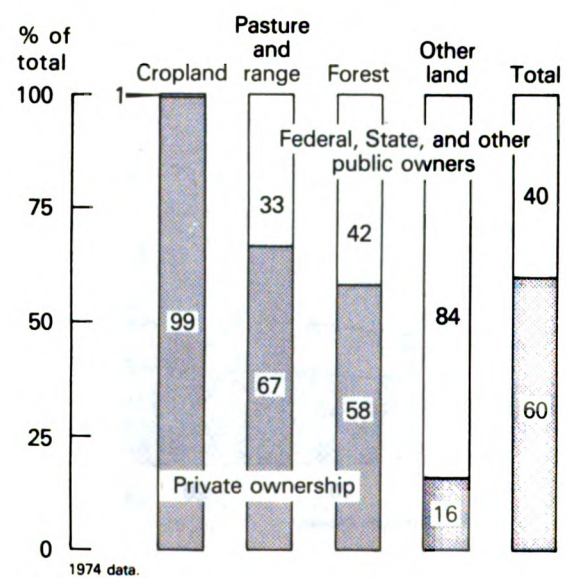



Chart 47

## Major Land Uses by Ownership



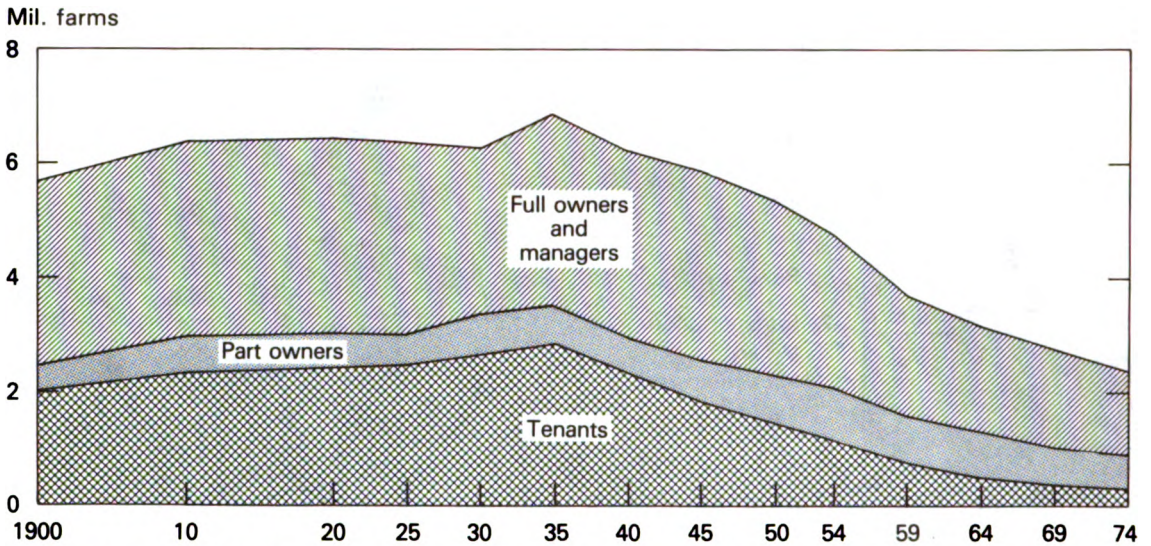
# LAND USE

The overall downtrend in number of farms has been accompanied by a decrease in land in farms, but an increase in the average farm size. In 1960, for example, an average farm had 302 acres; whereas in 1974, it had 440.

The drop in farm numbers has been most marked in those farms operated by tenants, both in absolute numbers and relative importance. Tenant farms comprised 42 percent of all farms in 1935, but by 1974 they accounted for only 11 percent. In the same period, the percentage of farms operated by full owners rose from 47 percent to 63 percent, and by part owners, from 10 to 26 percent. Part owners, although fewer in number than full owners, control the most land and rank highest in value of products sold.

Chart 48

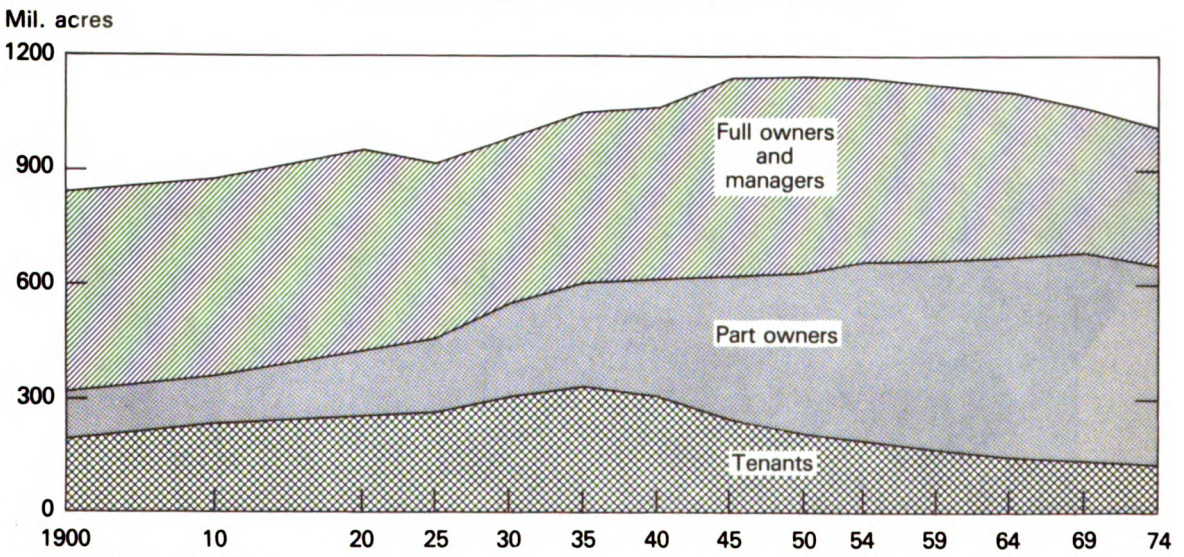
## Number of Farms, by Tenure of Operator




Managed farms were discontinued in 1969. Such farms were classified by tenure based on whether the land operated was owned or rented after 1969. 1974 preliminary data. Source: Census of Agriculture.

Chart 49

## Land in Farms, by Tenure of Operator




Source: Census of Agriculture.

# LAND USE

Although the distribution of farms and land in farms by tenure class of operator has changed greatly over time, the average size of farm has increased in all tenure classes.

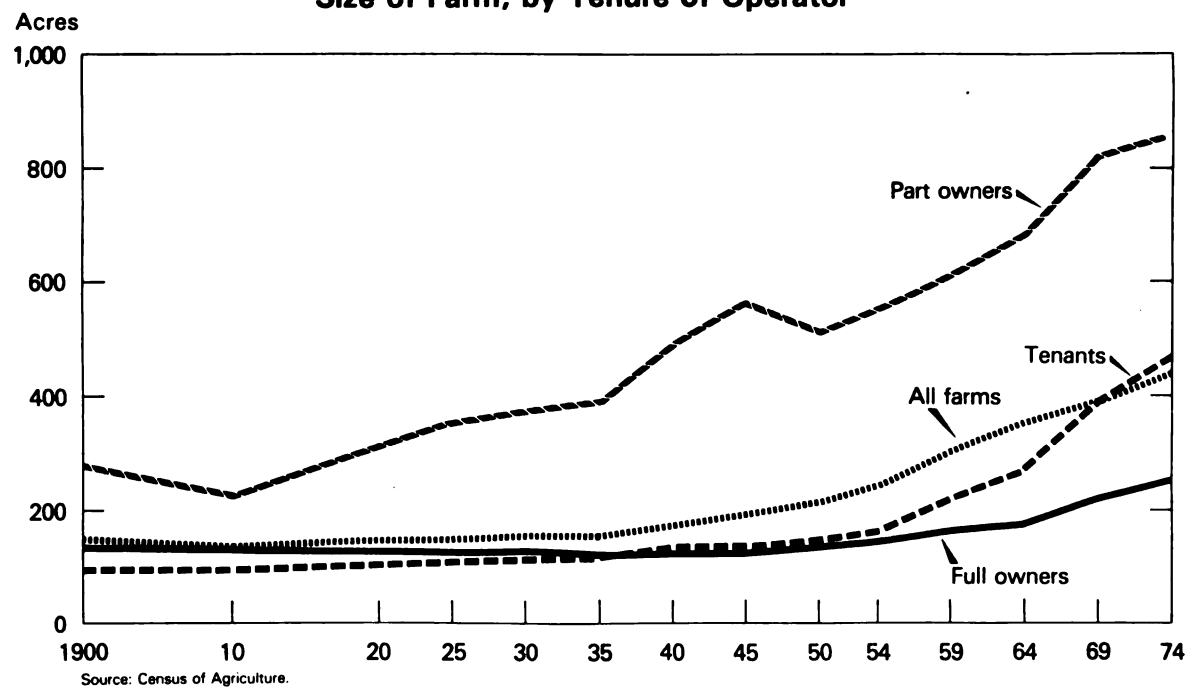
Since the 1950's, farms in both the part-owner and tenant categories have increased substantially in average size, while farms in the full-owner category have increased only moderately.

In comparison with the national average of 440 acres, part-owner farms now average 852 acres; tenant farms, 465 acres; and full-owner farms, 252 acres.

These numbers are from the 1974 Census of Agriculture—the latest data available.

Chart 50

**Size of Farm, by Tenure of Operator**




Source: Census of Agriculture.

**Number of Farms, Land in Farms, and Size of Farms, by Tenure of Operator**

| | 1900 | 1910 | 1920 | 1930 | 1940 | 1950 | 1954 | 1959 | 1964 | 1969 | 1974 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *Thousand* | | | | | |
| Number of farms: | | | | | | | | | | | |
| Full owners[1] | 3,262 | 3,414 | 3,437 | 2,969 | 3,122 | 3,115 | 2,758 | 2,139 | 1,836 | 1,706 | 1,424 |
| Part owners | 452 | 594 | 559 | 657 | 616 | 826 | 857 | 811 | 782 | 672 | 628 |
| Tenants | 2,026 | 2,358 | 2,459 | 2,669 | 2,365 | 1,447 | 1,168 | 760 | 540 | 353 | 262 |
| Total | 5,740 | 6,366 | 6,454 | 6,295 | 6,102 | 5,388 | 4,783 | 3,708 | 3,158 | 2,730 | 2,314 |
| | | | | | | *Million acres* | | | | | |
| Land in farms: | | | | | | | | | | | |
| Full owners and managers | 521 | 519 | --- | 436 | 451 | 526 | 495 | 458 | 432 | 375 | 359 |
| Part owners | 125 | 134 | --- | 247 | 301 | 423 | 470 | 498 | 533 | 551 | 535 |
| Tenants | 195 | 227 | --- | 307 | 313 | 212 | 193 | 167 | 145 | 138 | 122 |
| Total | 841 | 879 | 959 | 990 | 1,065 | 1,161 | 1,158 | 1,123 | 1,110 | 1,063 | 1,017 |
| | | | | | | *Acres* | | | | | |
| Size of farms: | | | | | | | | | | | |
| Full owners | 135 | 139 | --- | 128 | 124 | 136 | 145 | 165 | 175 | 220 | 252 |
| Part owners | 277 | 225 | --- | 375 | 489 | 512 | 549 | 614 | 682 | 819 | 852 |
| Tenants | 96 | 96 | --- | 115 | 132 | 147 | 165 | 220 | 268 | 390 | 467 |
| Total | 147 | 138 | 149 | 157 | 175 | 216 | 242 | 303 | 352 | 389 | 440 |

[1] Includes managers for years prior to 1969. --- = not available.

# LAND USE

Each year, part of the Nation's cropland is used for crops, part for pasture, and part is idle, but the proportions may vary significantly. The acreage of cropland used for crops in 1979 is up 3 percent. However, those acres are the most productive in history—23 percent greater than in 1967 and 2 percent more than in 1978.

Many crop yields are at record or near record levels in 1979. Corn yields broke the 100 bushel per-acre mark in 1978 for the first time, and should be higher this year. Winter wheat yields in 1979 are the highest ever, while soybean yields are nearly equal to the 1977 record.

The increase in crop production has far outstripped the rate of increase in U.S. population.

Chart 51

**How Crop Output Compares With Population Increase**

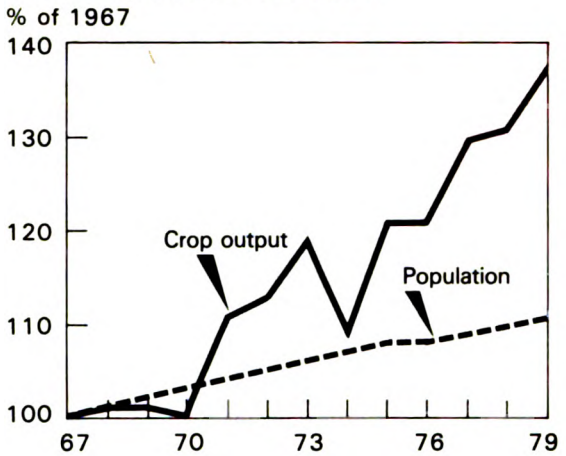



Chart 52

**Major Uses of Cropland**

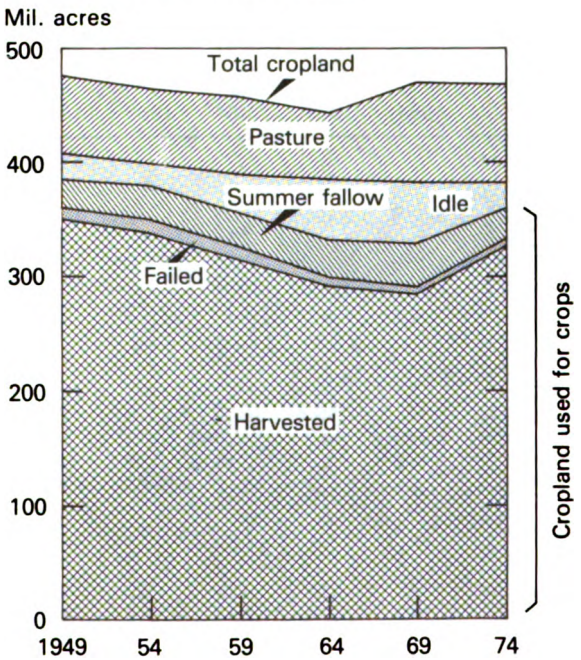
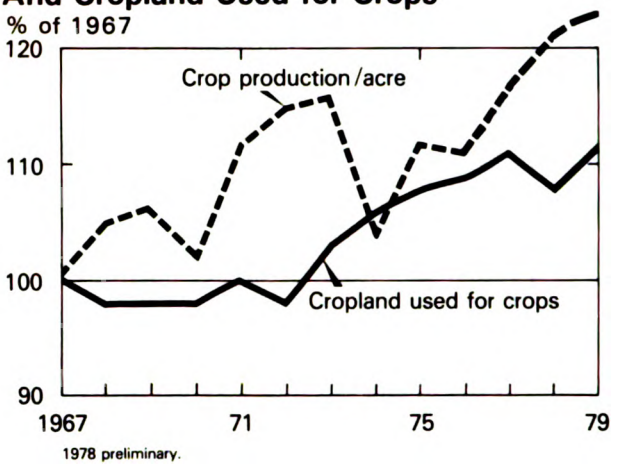



Chart 53

**Crop Production per Acre And Cropland Used for Crops**




1978 preliminary.

**Cropland Output, Crop Production Per Acre, And U.S. Population**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Percentage of 1960* | | | |
| Cropland output | 130 | 130 | 139 | 138 |
| U.S. population | 118 | 119 | 120 | 121 |
| | *Percentage of 1967* | | | |
| Cropland used for crops | 108 | 109 | 111 | 108 |
| Crop production per acre | 112 | 111 | 116 | 119 |

**Major Uses of Cropland**

| | 1959 | 1964 | 1969 | 1974 |
|---|---|---|---|---|
| | *Million acres* | | | |
| Total cropland | 458 | 444 | 472 | 465 |
| Harvested | 317 | 292 | 286 | 322 |
| Failed | 10 | 6 | 6 | 8 |
| Summer fallow | 31 | 37 | 41 | 31 |
| Idle | 34 | 52 | 51 | 21 |
| Pasture | 66 | 57 | 88 | 83 |

# LAND USE

As indicated by the chart below, most of the irrigation in the United States is in the 17 Western States.

Approximately 12 percent of the Nation's harvested cropland is irrigated, and that acreage accounts for about 27 percent of the value of total harvested crop production. In addition, several million acres of pastureland are irrigated.

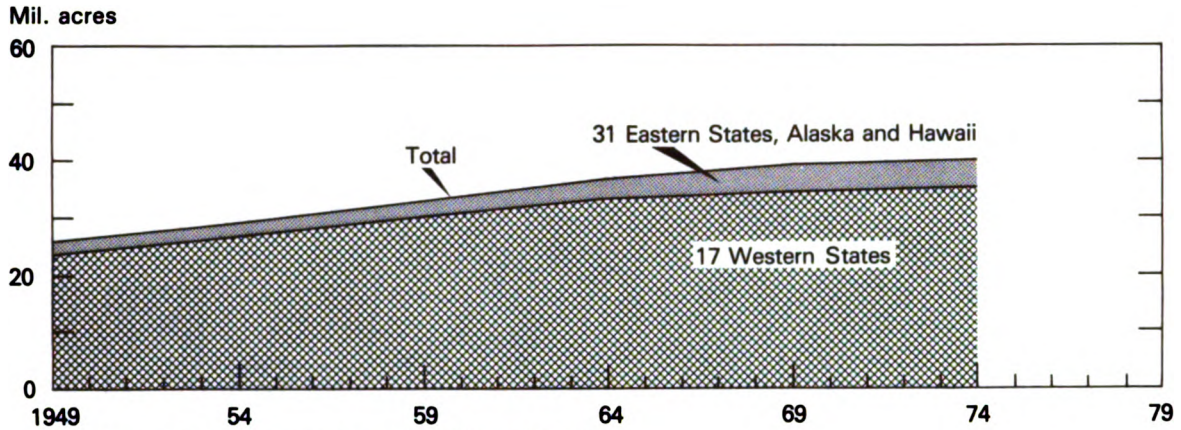
In irrigated agriculture, the cost of energy for pumping is a large and continually increasing expense. The latest data show that electricity is the leading source of power for pumping (42 percent), followed by natural gas (32 percent).

The outlook for electric pumps is more favorable because of hydrogeneration and also because many electric power plants use coal.

---

Chart 54

## Irrigated Land in Farms




Data plotted on a 5-year basis, corresponding with the U.S. Census of Agriculture.

Chart 55

## Irrigated and Nonirrigated Acreage Harvested and Value of Production

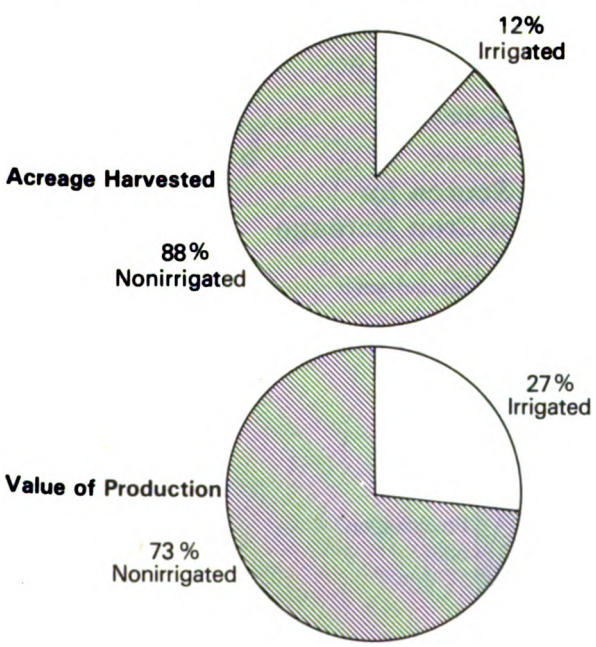
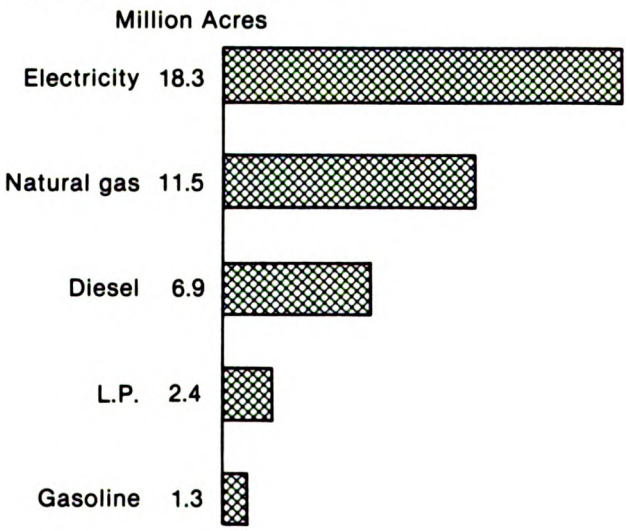



Chart 56

## Acres Irrigated with Pumped Water By Type of Energy Used




1977 data.

# WATER

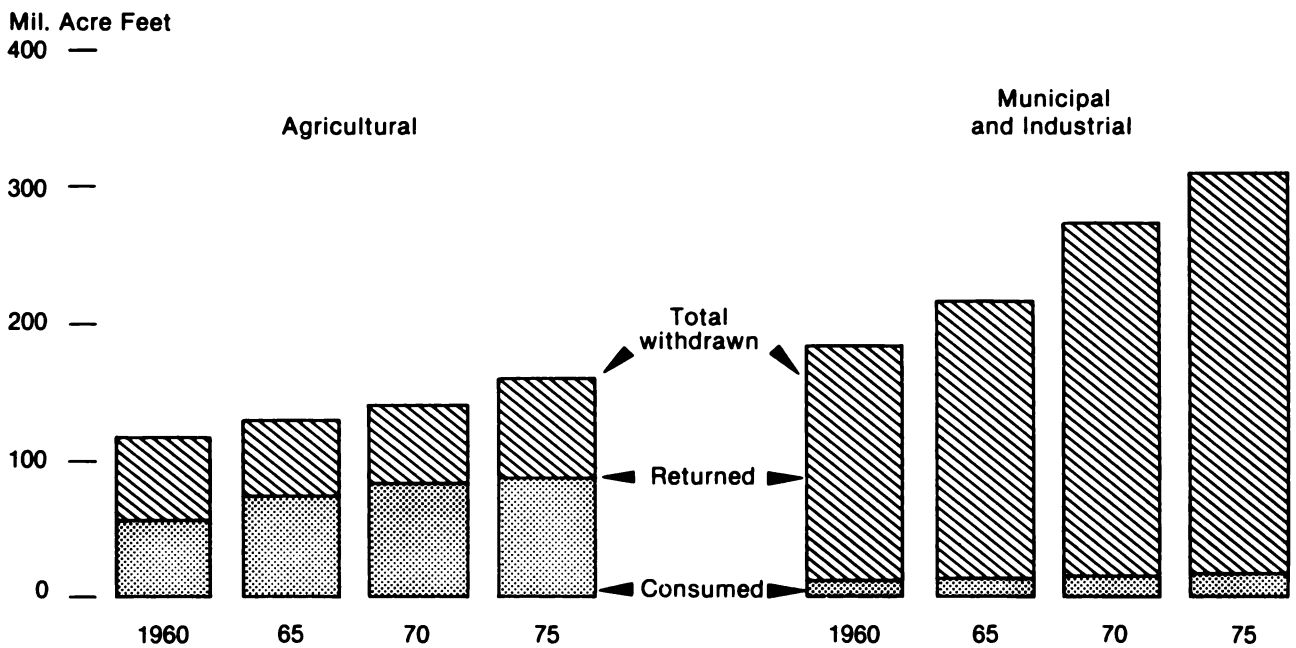
Water quality and supply problems are critical to farmers because agriculture is the Nation's biggest water user. Although municipal and industrial users actually withdraw more water than does agriculture, they return most of it to streams. In contrast, irrigators return only about half of the water they withdraw.

Nearly three-fifths of the irrigation water applied is withdrawn from surface streams and lakes, and the remainder (except for a fraction from reclaimed sewage) is from groundwater sources. In the West—where most of the country's irrigated land is located—weather variability may significantly affect the quantity of surface water accumulated in impoundments and, hence, the supply available for irrigation purposes.

---

**Chart 57**

## Water Use

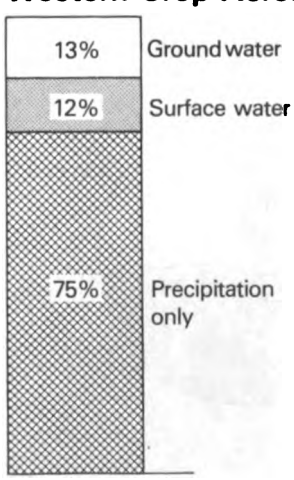



**Water Use**

| | 1960 | 1965 | 1970 | 1975 |
|---|---|---|---|---|
| | | *Million acre feet* | | |
| Agriculture: | | | | |
| Water withdrawn | 119 | 130 | 140 | 160 |
| Water returned | 62 | 56 | 58 | 71 |
| Water consumed | 57 | 74 | 82 | 89 |
| Other uses: | | | | |
| Water withdrawn | 183 | 217 | 274 | 310 |
| Water returned | 172 | 204 | 259 | 292 |
| Water consumed | 11 | 13 | 15 | 18 |

**Chart 58**

## Water Source for Western Crop Acreage




Data are for 17 Western States, 1977.

# WATER

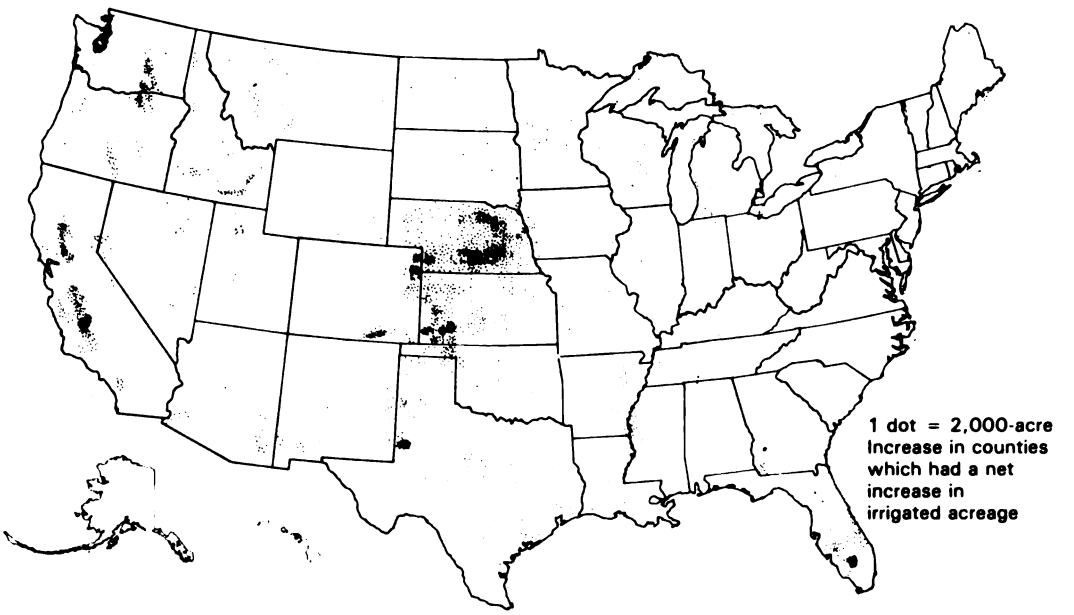
Acres under irrigation have expanded steadily for many years and now exceed 41 million. Recent increases have been particularly large in western Kansas and several other areas. These increases are closely linked with the development of water sources and advances in irrigation technology.

Although the irrigated acreage grew nationally, more than half of the counties reporting irrigated land in the 1974 Census of Agriculture had a net loss in irrigated land. Decreases in irrigation in the West usually reflect temporary or permanent limitations on the water supply, while those in the East tend to reflect adequate precipitation.

---

Chart 59

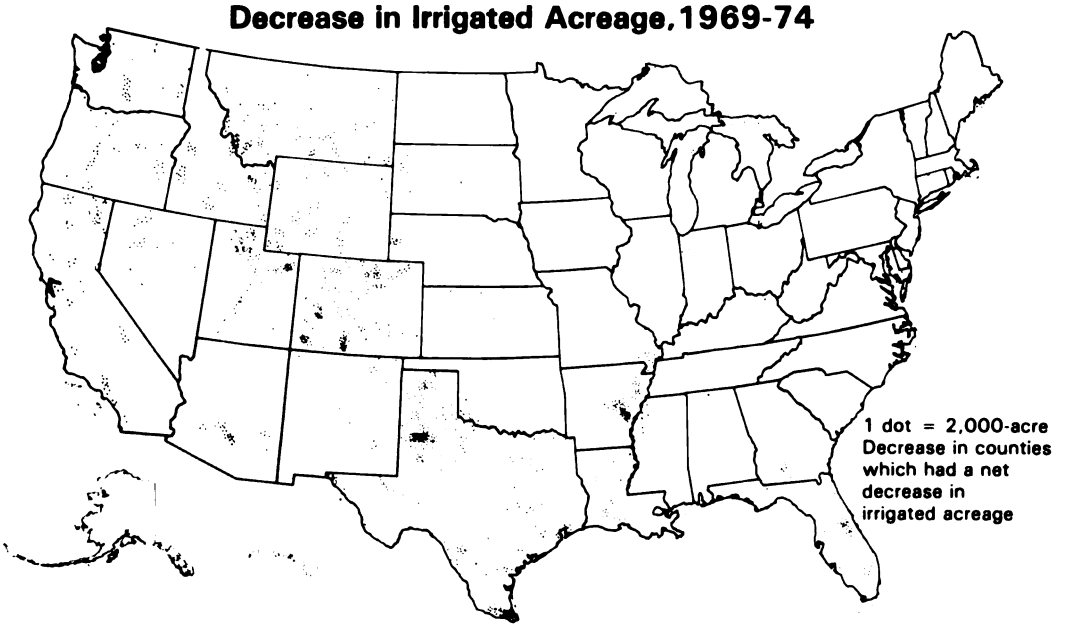
**Increase in Irrigated Acreage, 1969-74**




Source: U.S. Census of Agriculture.

Chart 60

**Decrease in Irrigated Acreage, 1969-74**




Source: U.S. Census of Agriculture.

# OTHER RESOURCES

About 17 percent of all energy used in the United States goes to produce, process, distribute, and prepare food.

Food production absorbs less than 20 percent of the total energy used by the food system. More than 40 percent is used for food processing and distribution; homes and commercial eating establishments consume the other 40 percent.

Pesticides and fertilizers account for more than a third of the energy required for agricultural production. Energy needs for both of these inputs have trended sharply upward, although fertilizers have used more energy than pesticides, and the increase is reflected in rising crop yields.

---

Chart 61

## Energy Used in Agricultural Production

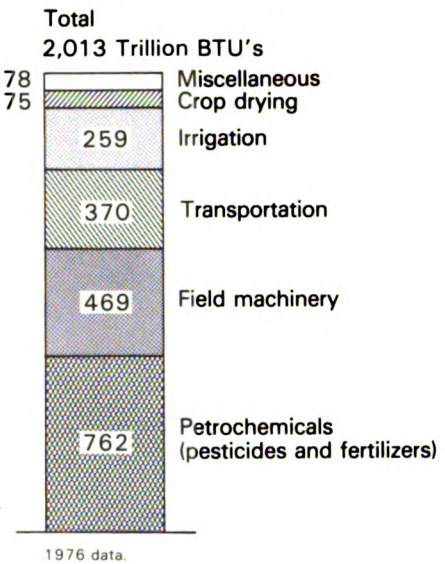



Chart 62

## Fertilizer Nutrients Used per Acre

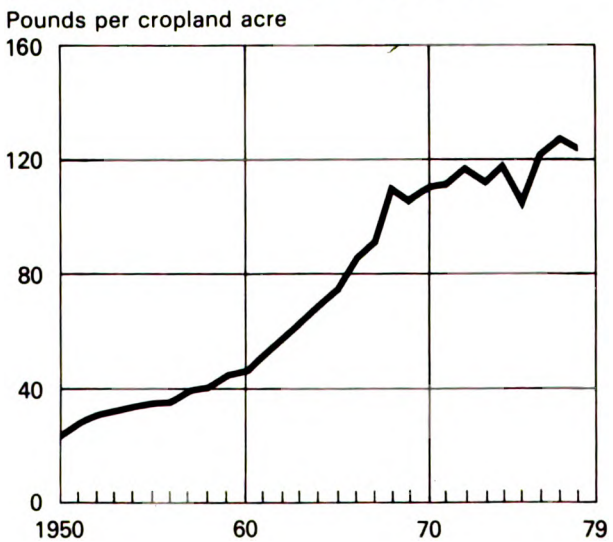
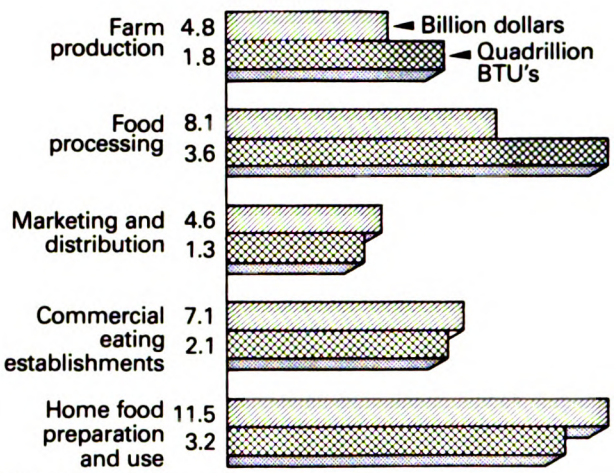



Chart 63

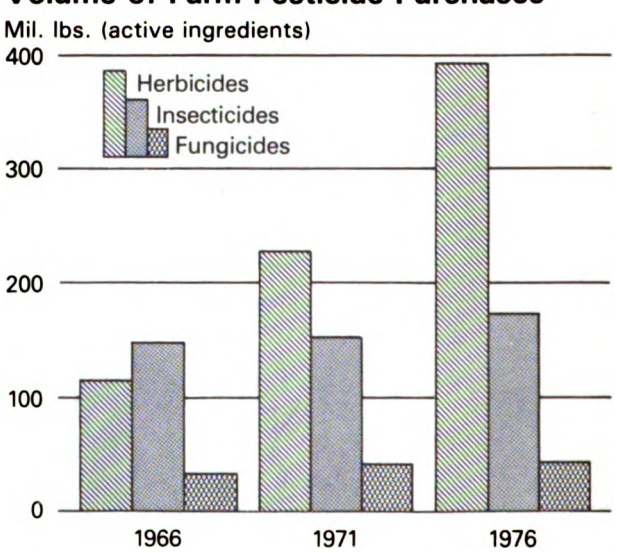
## Energy Used in U.S. Food System




1976 data for farm production.
1975 data for all other categories.

Chart 64

## Volume of Farm Pesticide Purchases



# POPULATION AND RURAL DEVELOPMENT



# POPULATION

The population in rural areas and small towns has continued to grow since 1970. In all regions except the South, population has grown faster in nonmetro counties than in metro areas.

The faster nonmetro gain is often attributed to the spillover from metro centers. However, even in nonmetro counties which do not adjoin metro areas, population has grown substantially.

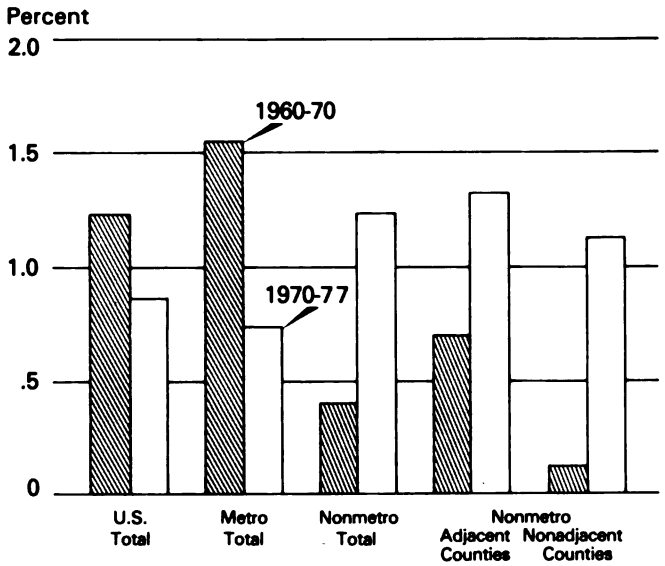
Population growth in both the South and the West and in both metro and nonmetro areas exceeded the U.S. averages for 1970-77.

Nonmetro population grew fastest in the West and metro in the South.

---

Chart 65

## Annual Population Change




1960-70 and 1970-77 are annual averages. Adjacent counties are those counties adjacent to Standard Metropolitan Statistical Areas as defined in 1974. Source: U.S. Bureau of the Census.

**Population Change[1]**

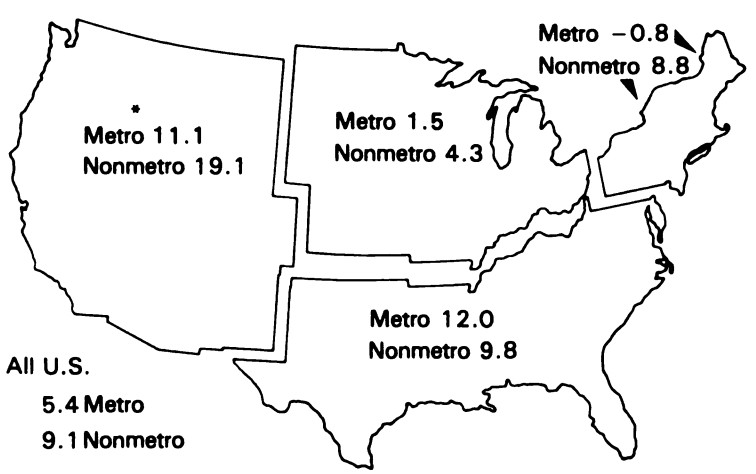
| | 1969-70 | 1970-77 |
|---|---|---|
| | *Percent* | |
| United States | 1.3 | .9 |
| Metropolitan | 1.6 | .7 |
| Nonmetropolitan | .4 | 1.2 |
| Adjacent counties[2] | .7 | 1.3 |
| Nonadjacent counties | .1 | 1.1 |

[1] Annual average. [2] Counties adjacent to Standard Metropolitan Statistical Areas as defined in 1974.

Source: U.S. Bureau of the Census

Chart 66

## Regional Population Growth, Percentage Change, 1970-77




*Includes Alaska and Hawaii.

# POPULATION

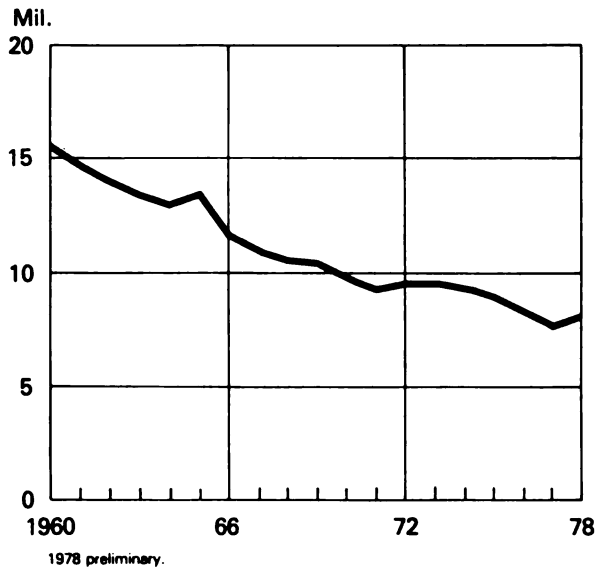
The 1978 U.S. farm population estimate of 8.0 million, using the old farm definition, tended to stabilize between 1977 and 1978. The 1975-78 average loss in the farm population through migration and reclassification was about 300,000.

Under the old definition, a farm was a place of 10 acres or more with agricultural sales of at least $50 annually, or a place of fewer than 10 acres with sales of at least $250. Under the new farm definition, introduced in 1978, a farm is any place with annual sales of $1,000 or more.

By the new definition, the number of rural people on farms was 6.5 million, about 1 out of every 33. This was about 1.5 million fewer than under the old definition.

Chart 67

## Farm Population




1978 preliminary.

**Farm Population**[1]

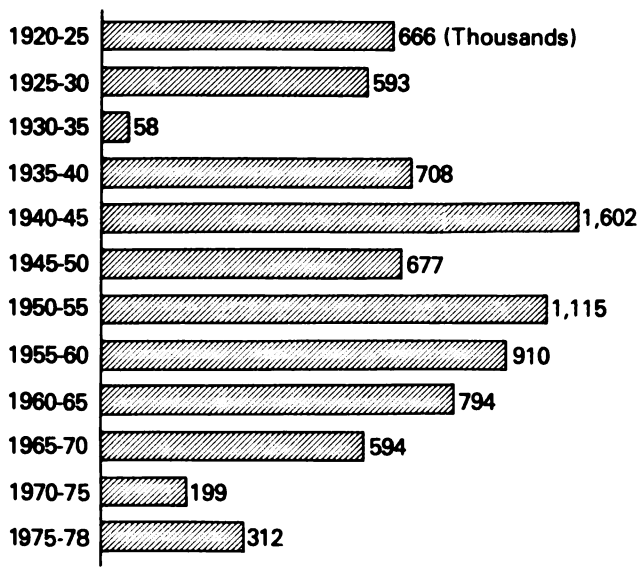
| | 1960 | 1970 | 1978 |
|---|---|---|---|
| | | *Thousand* | |
| Previous definition | 15,635 | 9,712 | 8,005 |
| Current definition | NA | NA | 6,501 |
| | | *Percent* | |
| Farm population as percentage of total population | | | |
| Previous definition | 8.7 | 4.8 | 3.7 |
| Current definition | NA | NA | 3.0 |

[1] All persons living on places with $1,000 or more of agricultural product sales in the reporting year. Under the 1960 definition, the farm population was defined as persons living on places of 10 or more acres with at least $50 worth of agricultural products sold in the reporting year, and places of under 10 acres if at least $250 worth of agricultural products were sold.

NA = not applicable.

Chart 68

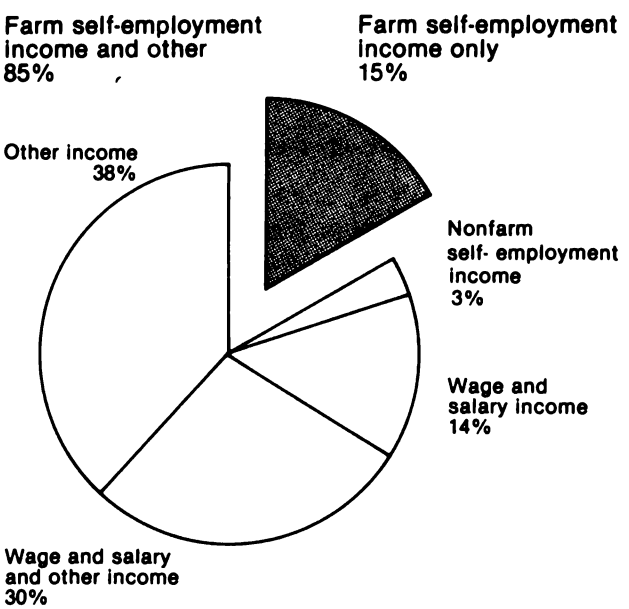
## Annual Net Outmovement from the Farm Population




Net change through migration and reclassification of residence from farm to nonfarm because agricultural operations ceased or were begun.

Chart 69

## Income Sources of All People with Farm Self-Employment Income




**2,800,000 People**

Source: Bureau of the Census, Current Population Survey, unpublished data, 1976.

# POPULATION

Nonmetro population changes between 1970 and 1976 show some interesting developments.

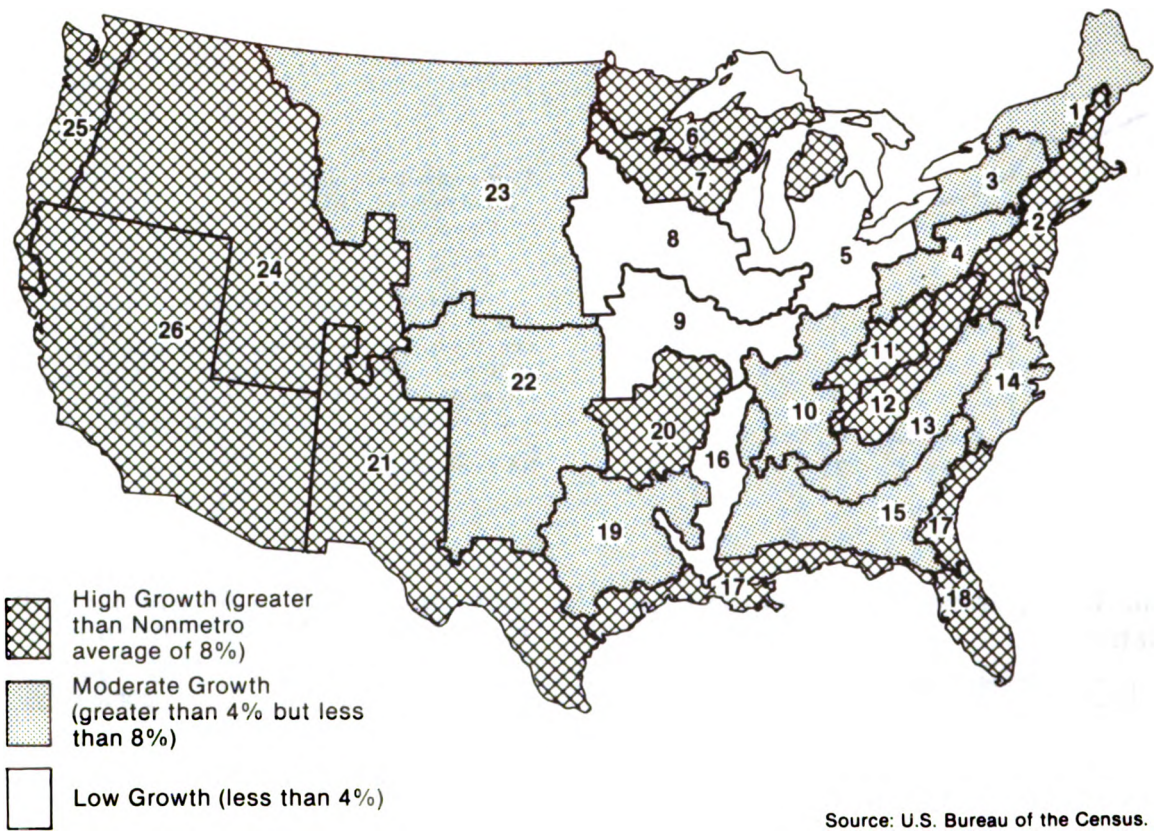
The nonmetro parts of the mountain and inland subregions that had previously lost people, all had a population resurgence: the Southern Appalachian Coal Fields, the Blue Ridge, Great Smokies, and the Great Valley and the Ozark-Quachita Uplands.

The population rebound in these subregions was even greater than the national average, as was that in the Upper Great Lakes and the Dairy Belt in Minnesota and Wisconsin. Coastal and Western subregions maintained their above-average growth rates.

---

**Chart 70**

**Nonmetro Population Change by Economic Subregion, 1970-76**




Source: U.S. Bureau of the Census.

1. Northern New England - St. Lawrence
2. Northeastern Metropolitan Belt
3. Mohawk Valley and New York-Pennsylvania Border
4. Northern Appalachian Coal Fields
5. Lower Great Lakes Industrial
6. Upper Great Lakes
7. Dairy Belt
8. Central Corn Belt
9. Southern Corn Belt
10. Southern Interior Uplands
11. Southern Appalachian Coal Fields
12. Blue Ridge, Great Smokies, and Great Valley
13. Southern Piedmont
14. Coastal Plain Tobacco and Peanut Belt
15. Old Coastal Plain Cotton Belt
16. Mississippi Delta
17. Gulf of Mexico and South Atlantic Coast
18. Florida Peninsula
19. East Texas and Adjoining Coastal Plain
20. Ozark - Ouachita Uplands
21. Rio Grande
22. Southern Great Plains
23. Northern Great Plains
24. Rocky Mountains, Idaho-Utah Valleys, and Columbia Basin
25. North Pacific Coast (including Alaska)
26. The Southwest (including Hawaii)

# WORK FORCE

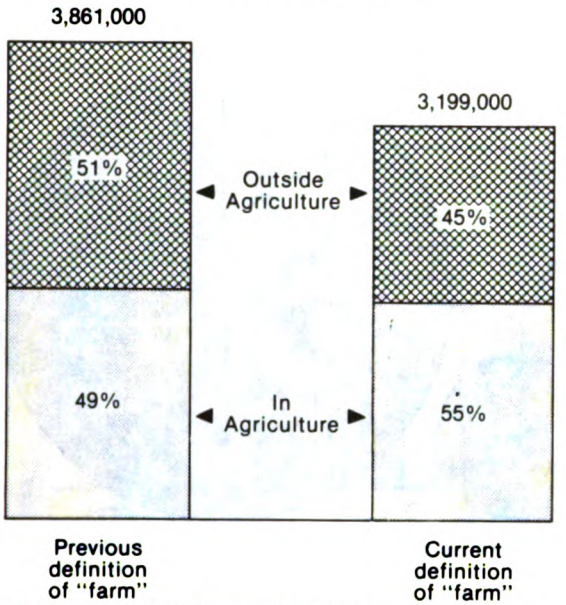
For the past 3 years, the ratio of farm people employed in agriculture to those engaged in nonfarm work has varied little. However, because of the changed definition of a "farm," (see page 37), the number of employed farm residents dropped 17 percent to 3,199,000, of whom some 55 percent work in agriculture.

During 1976-77, under the old definition of a farm, an average of only 21 percent of hired farmworkers lived on farms.

In recent years, total farm employment has remained relatively stable at about 4 million; two-thirds are family workers and the others are hired hands.

Chart 71

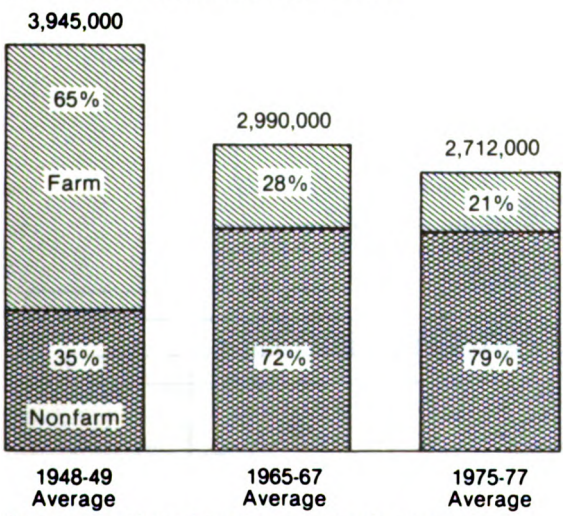
## Employment of Farm Residents




Previous definition = Persons living on places of 10 or more acres with sales of at least $50 or living on fewer than 10 acres with sales of at least $250. Current definition = Persons living on places with farm product sales of at least $1,000. Data are for 1978.

Chart 72

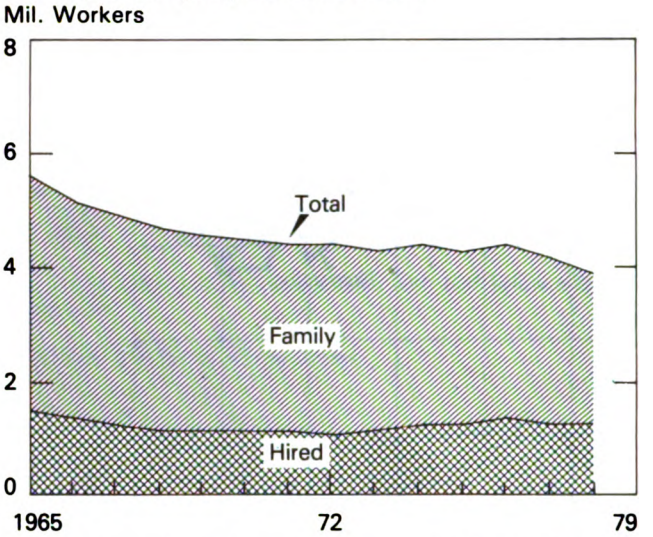
## Hired Farmworkers— Farm and Nonfarm Residents




Residence of hired farmworkers in December of the reference years. Source: Hired Farm Working Force Survey. All figures based on the old definition of a "farm."

Chart 73

## People Employed on Farms




Average number of persons employed in 1 survey week each month—through 1974 the last full calendar week ending at least 1 day before the end of the month; beginning with 1975, estimates are quarterly and include the week of the twelfth of January, April, July, and October. The chart titled "People Employed on Farms" is based on a quarterly average; the others include anyone who did hired farmwork during the year.

### People Employed on Farms

| | 1970 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million* | | | |
| Total workers[1] | 4.5 | 4.4 | 4.2 | 3.9 |
| Family workers | 3.3 | 3.0 | 2.9 | 2.7 |
| Hired workers | 2.1 | 1.4 | 1.3 | 1.3 |

[1] Average number of persons employed in 1 survey week each month—through 1974, the last full calendar week ending at least 1 day before the end of the month; beginning with 1975, estimates are quarterly and include the week of the twelfth of January, April, July, and October.

NOTE: The Farm Employment chart is based on a quarterly average; the others include anyone who did hired farmwork during the year.

# WORK FORCE

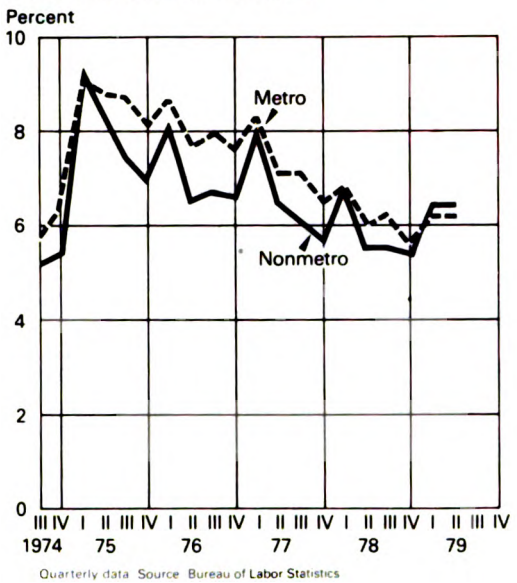
The rate of unemployment in nonmetro areas has remained below the metro rate since the 1975 recession. However, during the first quarter each year, the metro-nonmetro gap narrowed.

Rural areas gained 5.9 million nonfarm jobs between 1970 and 79—an increase of 34.6 percent—compared with 11.8 million (a 22.1-percent increase) in metro areas.

Whereas minorities make up nearly half the migrant farm work force—42 percent—whites comprise 72 percent of all hired farmworkers. Hispanics comprise 11 percent of all hired farmworkers, blacks and other minorities, 17 percent.

Chart 74

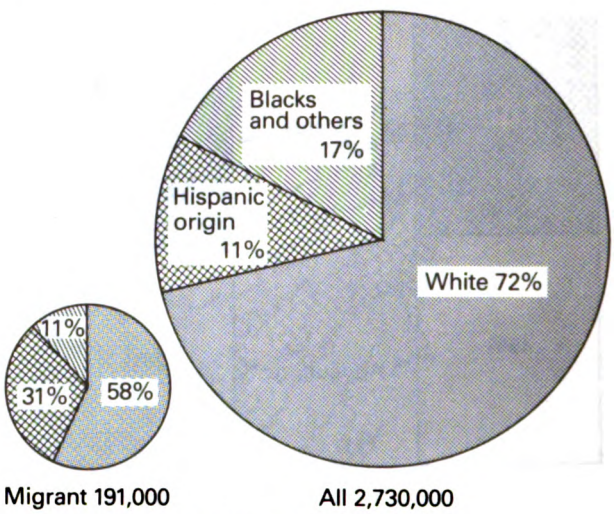
## Unemployment Rates for Metro And Nonmetro Areas




Quarterly data. Source: Bureau of Labor Statistics

Chart 76

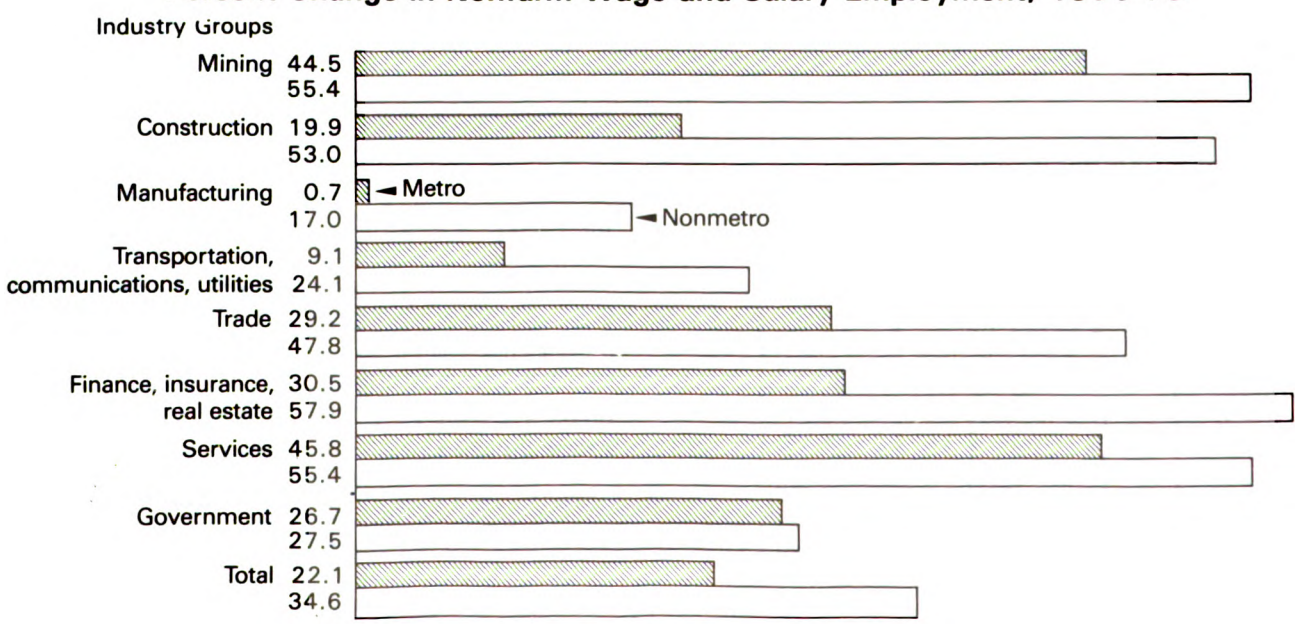
## Racial and Ethnic Background Of Hired Farmworkers




1977 data. Source: Hired Farm Working Force Survey of 1977.

Chart 75

## Percent Change in Nonfarm Wage and Salary Employment, 1970-79




Metro excludes about 50 standard metropolitan statistical areas. Source: Bureau of Labor Statistics and State Employment Security Agencies.

# INCOME

Median family income made substantial gains between 1970 and 1972; however, the median for nonmetro areas still lagged behind the metro areas. (Median income is that level attained by half the population.)

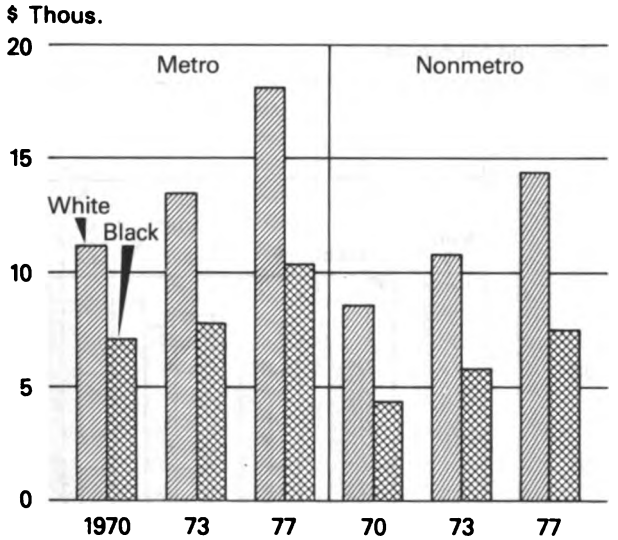
The 1977 income for nonmetro white families was about 20 percent lower than for metro white families. The nonmetro black families moved up the income scale, but their median income in 1977 was still only 72 percent as much as that of metro blacks and 52 percent of nonmetro white families.

Even though incomes in the South have improved steadily, the South still has the highest proportion of nonmetro counties with per capita incomes below the 1976 median.

---

Chart 77

## Median Family Income




The median is the middle value with half the families below and half above.
Source: Bureau of the Census.

**Median Family Income[1]**

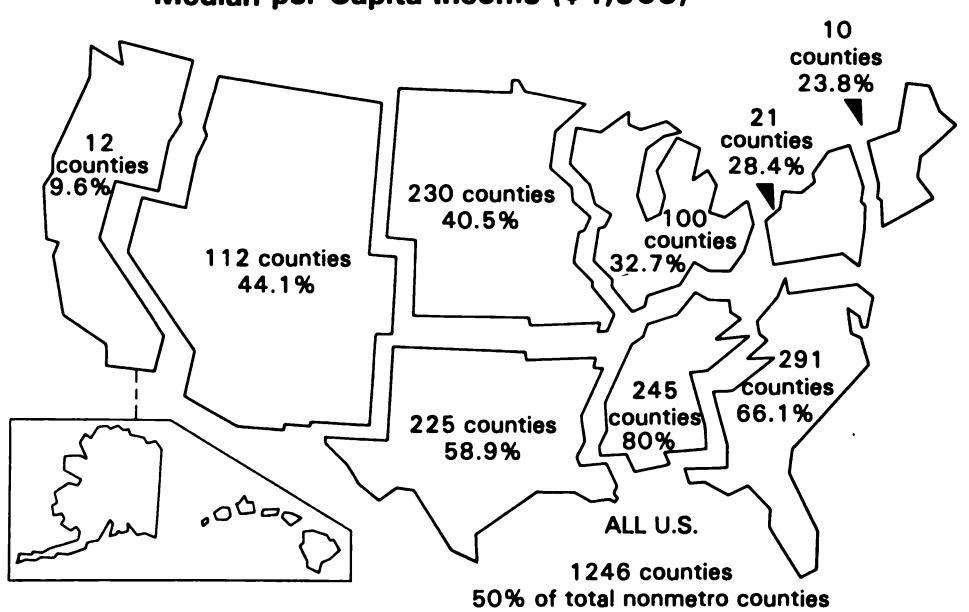
| | 1970 | 1973 | 1977 |
|---|---|---|---|
| | | *Dollars* | |
| Metro | | | |
| White | 11,203 | 13,566 | 18,211 |
| Black | 7,140 | 7,779 | 10,431 |
| Nonmetro | | | |
| White | 8,661 | 10,788 | 14,403 |
| Black | 4,397 | 5,780 | 7,512 |

[1]The median is the middle value with half below and half above.

Source: U.S. Bureau of the Census.

Chart 78

## Nonmetro Counties with Less than the U.S. Nonmetro Median per Capita Income ($4,905)




1976 data. Percentages refer to the proportion of total nonmetro counties in a division. Source: U.S. Bureau of Economic Analysis.

# HOUSING AND HEALTH

Nonmetro housing construction continued to surpass the metro rate, as expected from the faster rate of nonmetro population growth and job formation. Moreover, only 12 percent of new nonmetro units were multiple ones but 23 percent were mobile homes, compared with over 28 percent and 8 percent metro areas.

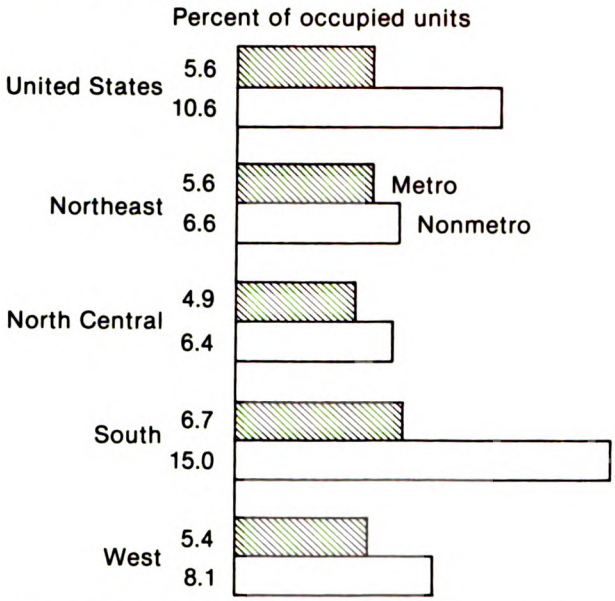
About 10.6 percent of occupied nonmetro housing was "inadequate" in 1978 because of poor plumbing and/or overcrowding; the rate for metro units was 5.6 percent.

The average health status of rural people is still somewhat lower than for metro residents. An example is an infant mortality rate of 14.3 for nonmetro areas compared with 14.0 for metro.

---

**Chart 79**

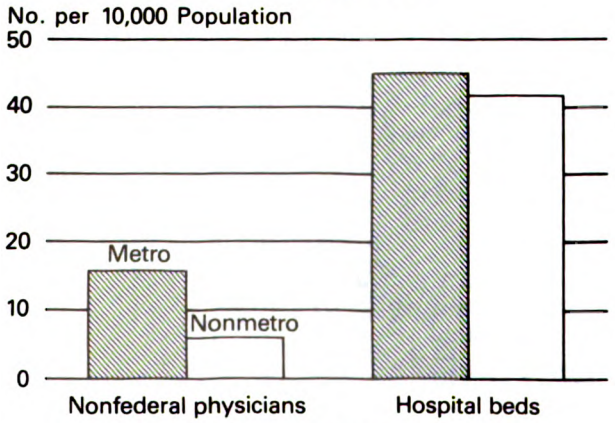
## Inadequate Housing




Inadequate housing units lack complete plumbing and/or have more people than rooms. Bath rooms and laundries are excluded from the count of rooms, but not from the survey of plumbing. Complete plumbing includes hot and cold piped water, bath or shower, and flush toilet. Percent of occupied units. 1978 data. Source: U.S. Bureau of the Census.

**Chart 80**

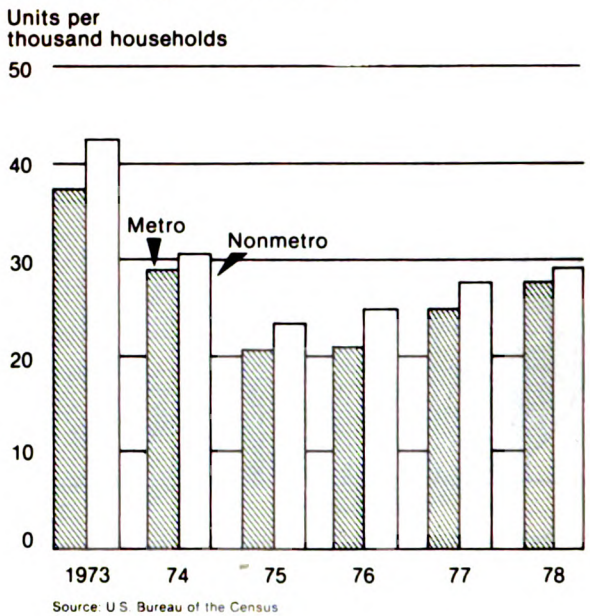
## Physicians and Hospital Beds




1976 data. Source: American Medical Association and American Hospital Association.

**Chart 81**

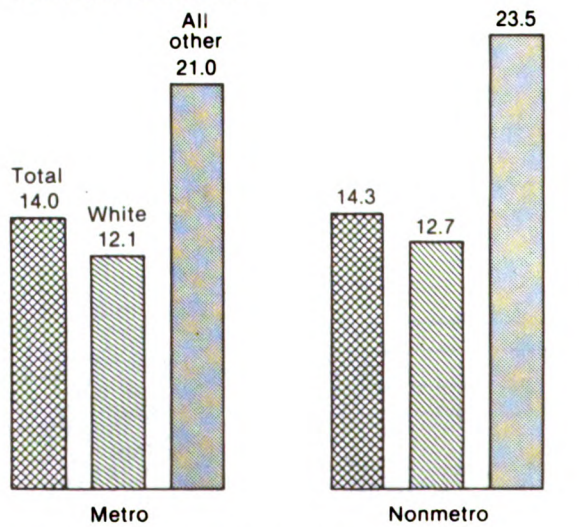
## New Housing Construction




Source: U.S. Bureau of the Census

**Chart 82**

## Infant Mortality Rate




Deaths of children under 1 year old, exclusive of fetal deaths, per 1,000 registered live births, 1977. Source: Unpublished data, Division of Vital Statistics, (HEW).

# EDUCATION

Average per pupil expenditures on instruction for nonmetro public schools in 1975-76 ($750) were somewhat lower than metro expenditures in the suburbs ($850) and in the central city ($950). However, nonmetro spending on instruction as a percentage (71.8) of total public school expenditures was somewhat higher.

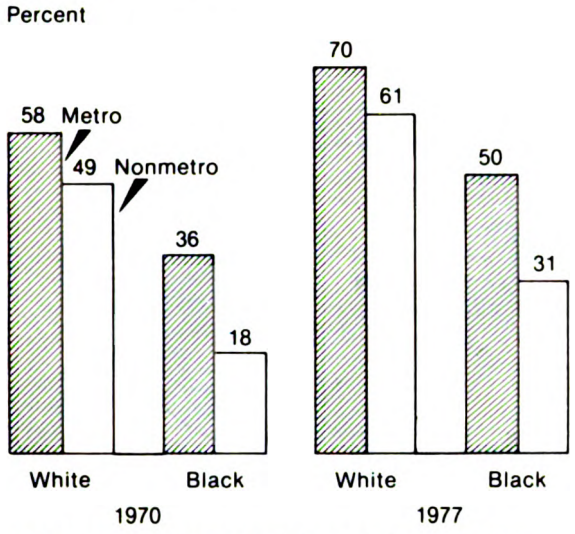
The number of years spent in formal education increased during 1970-77 for both blacks and whites in metro and nonmetro areas. However, levels continued to be highest for whites in metro areas and lowest for blacks in nonmetro areas.

For both metro and nonmetro areas, average earnings for adults 25 years of age and over increased with years of schooling.

---

**Chart 83**

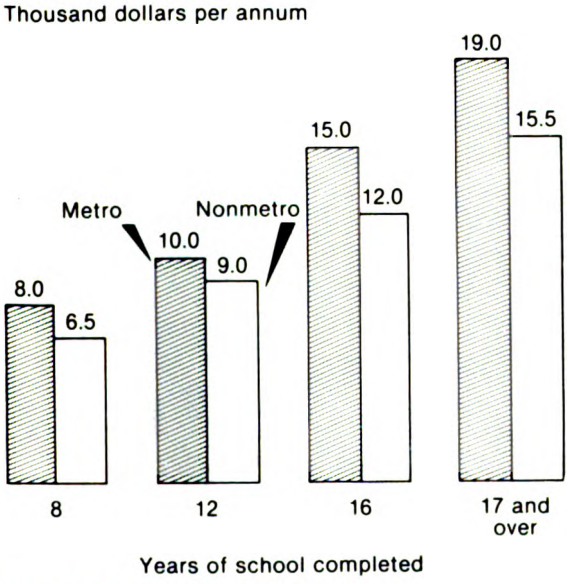
## Adults Who have Graduated From High School




Adults are persons 25 years old and over. Source: U.S. Bureau of the Census

**Chart 84**

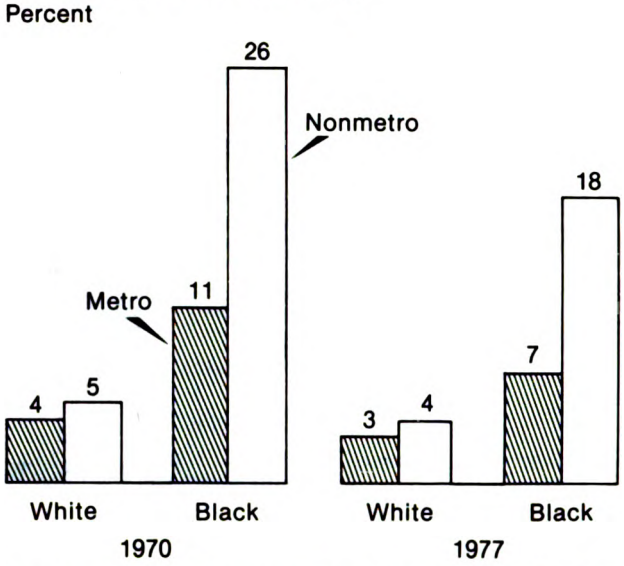
## Average Adult Earnings By Years of Schooling




Mean earnings. Source: U.S. Bureau of the Census.

**Chart 85**

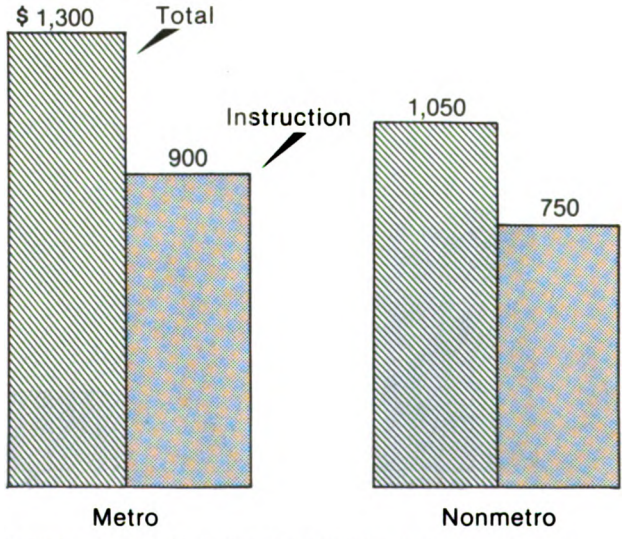
## Adults with Less than Five Years of Schooling




Census terms this group "functional illiterates." Source: U.S. Bureau of the Census.

**Chart 86**

## Expenditures per Pupil in Public Schools, 1975-76




Expenditures include funds spent on administration, instruction, attendance and health, pupil transportation, plant operation, and fixed charges. Source: National Center for Education Statistics (HEW).

# SMALL FARMS

Small-farm operators are engaged in all types of production. Nearly two-thirds of the livestock and half the cash grain farms are small. So are four-fifths of tobacco farms and nearly three out of five fruit and vegetable farms.

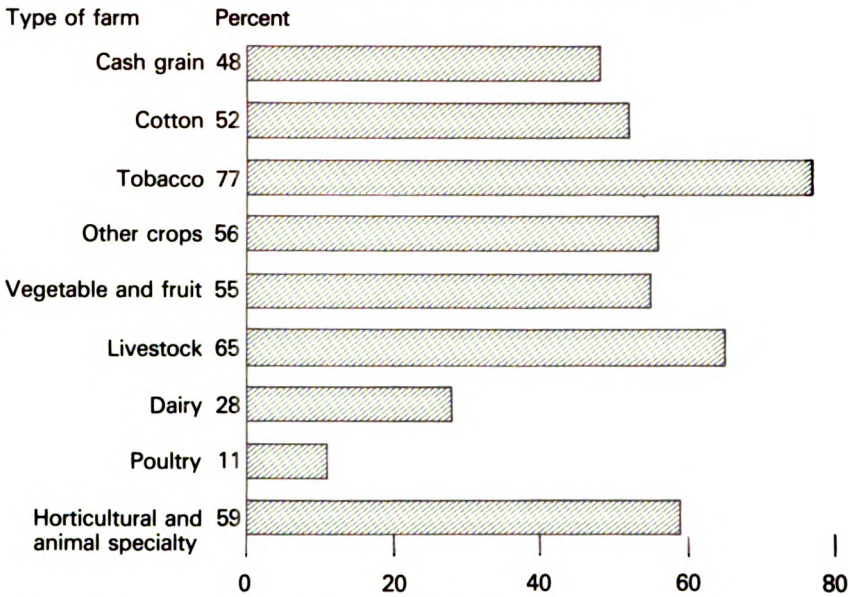
Value of land and buildings per farm for small farms in 1974 (latest available data) was about one-fourth that of larger farms. However, the average value of assets per acre was about 10 percent higher for small than for larger farms.

Location of small farms, such as proximity to highways and metropolitan areas, may account for why these farms had higher average value of assets than their larger counterparts.

---

Chart 87

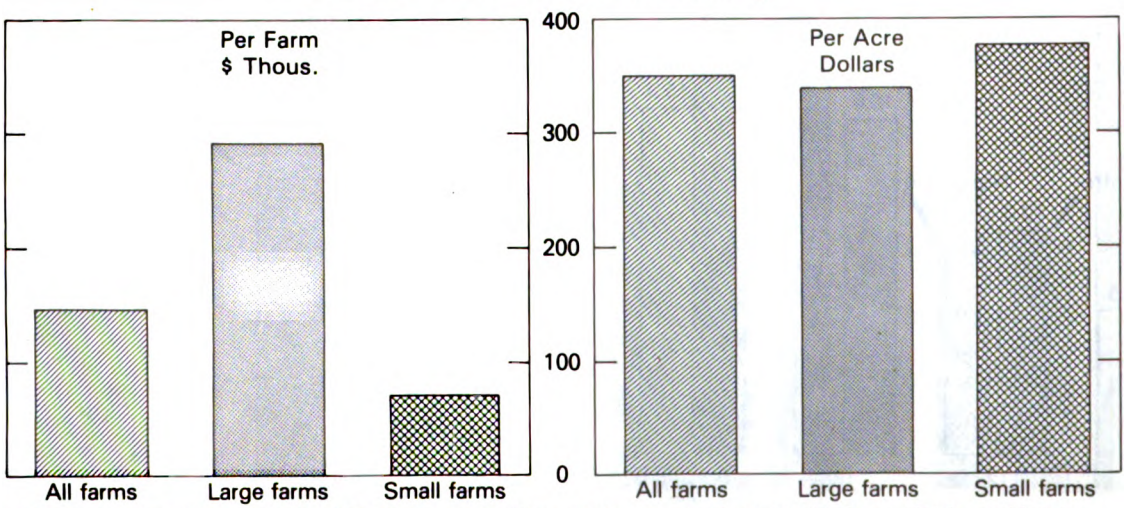
**Small Farms as a Percent of Total Farms**




1974 data. Small farms are those with sales of under $20,000. Total farms includes all farms with sales of $2,500 and over. Source: 1974 Census of Agriculture.

Chart 88

**Value of Farmland and Buildings**




1974 data. Large farms are those with sales of $20,000 and over. Small farms are those with sales of under $20,000. Source: 1974 Census of Agriculture

# SMALL FARMS

In 1975, nearly 65 percent of the farm population resided on farms with farm sales valued under $20,000—defined as "small farms" in the Food and Agriculture Act of 1977. Two-thirds of the small farm population lived on farms selling less than $5,000 of farm products a year.

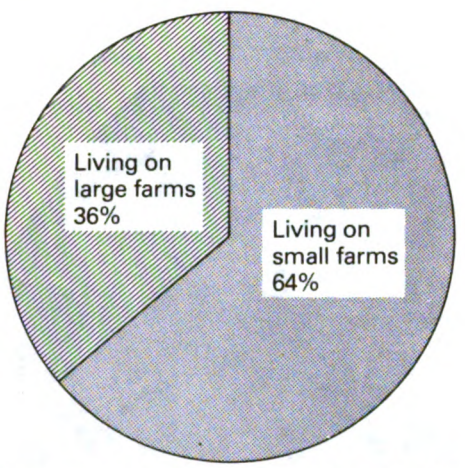
About 23 percent of the farm operators of small farms were 65 and over, but only 10 percent of the larger farm operators had reached that age.

About half of all male farm operators said their principal occupation was something other than farming. In general, families living on small farms receive most of their family income from off-farm sources.

---

Chart 89

## Percent of Farm People Living on Small and Large Farms




1975 data. Large farms are those with sales of $20,000 and over. Small farms are those with sales under $20,000.

Large and Small Farms by Type, 1974

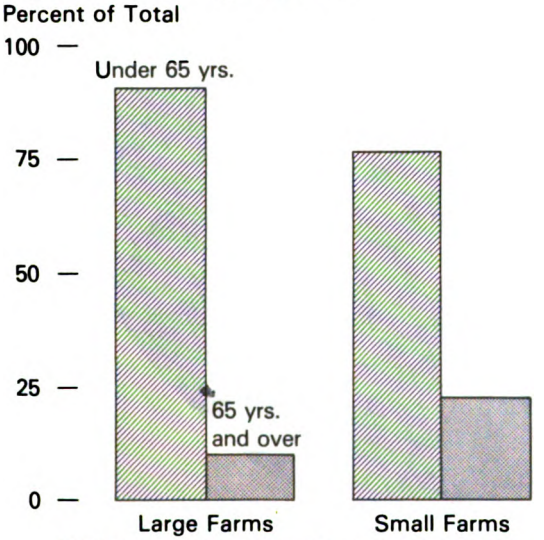
| | Total farms | Large farms[1] | Small farms[2] Number | Small farms[2] Percentage of total |
|---|---|---|---|---|
| | | *Thousand* | | *Percent* |
| Farms with sales of $2,500 and over[3] | 1,682 | 796 | 886 | 52.7 |
| Cash grain | 580 | 303 | 277 | 47.8 |
| Cotton | 31 | 15 | 16 | 52.1 |
| Tobacco | 95 | 22 | 74 | 77.3 |
| Other crops | 126 | 55 | 71 | 56.2 |
| Vegetable, fruit, and nut | 71 | 32 | 39 | 54.9 |
| Livestock | 509 | 178 | 331 | 65.0 |
| Dairy | 196 | 141 | 55 | 28.1 |
| Poultry and egg | 43 | 38 | 5 | 11.3 |
| Horticultural and animal specialty | 31 | 13 | 13 | 58.8 |

[1] Sales of $20,000 and over. [2] Sales under $20,000. [3] Excludes 13,000 farms unclassified by type.

Source: 1974 Census of Agriculture.

Chart 90

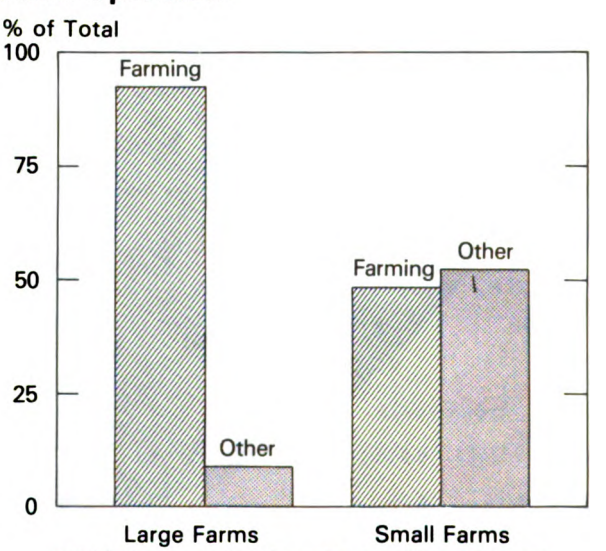
## Age of Farm Operators




1974 data. Large farms are those with sales of $20,000 and over. Small farms are those with sales under $20,000.
Source: 1974 Census of Agriculture.

Chart 91

## Principal Occupation of Farm Operators




1974 data. Large farms are those with sales of $20,000 and over. Small farms are those with sales under $20,000.
Source: 1974 Census of Agriculture.

# THE CONSUMER



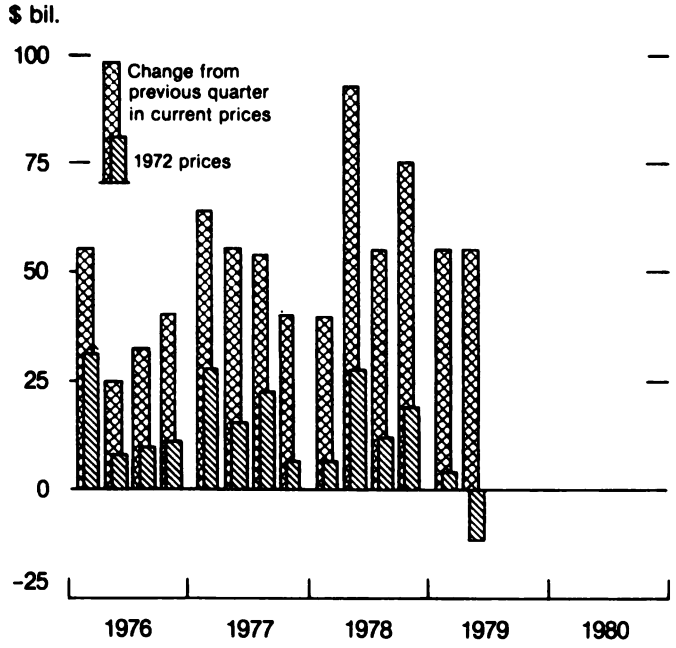
# GENERAL ECONOMY

The Nation's economy has turned sluggish. On balance, only little growth is expected in 1979. Real Gross National Product for the first quarter grew 1 percent from the year before, but it declined during the second quarter. The downward trend is expected to continue during the last half. For the entire year, growth is projected at about 1 percent, compared with gains of 5 percent in 1977 and 4 percent in 1978.

Disposable income of consumers, measured in current dollars, has more than doubled since 1970. Income has generally increased faster than expenditures for food, except in 1974-75. Expenditures for services have advanced at a faster rate than income; that trend continued in 1979.

Chart 92

## Gross National Product




Seasonally adjusted annual rate. 1979 preliminary.
Source: U.S. Department of Commerce.

### Gross National Product[1]

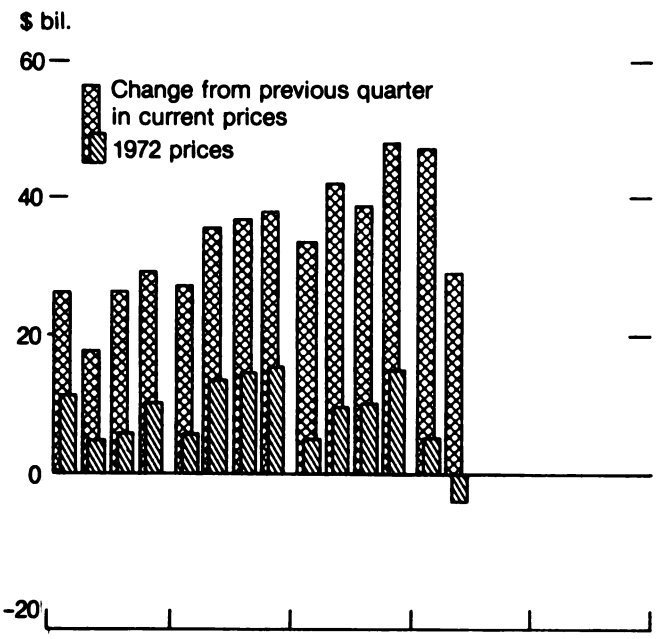
| | 1977 III | 1977 IV | 1978 I | 1978 II |
|---|---|---|---|---|
| | *Billion dollars* | | | |
| GNP, current prices | 1,930.5 | 1,971.3 | 2,011.3 | 2,104.2 |
| Change from previous quarter | 54.5 | 40.8 | 40.0 | 92.9 |
| GNP, 1972 prices | 1,353.9 | 1,361.3 | 1,367.8 | 1,395.2 |
| Change from previous quarter | 22.7 | 7.4 | 6.5 | 27.4 |

| | 1978 III | 1978 IV | 1979 I | 1979 II[2] |
|---|---|---|---|---|
| | *Billion dollars* | | | |
| GNP, current prices | 2,159.6 | 2,235.2 | 2,292.1 | 2,329.8 |
| Change from previous quarter | 55.4 | 75.6 | 56.9 | 37.7 |
| GNP, 1972 prices | 1,407.3 | 1,426.6 | 1,430.6 | 1,422.3 |
| Change from previous quarter | 12.1 | 19.3 | 4.0 | -8.3 |

[1] Seasonally adjusted annual rates. [2] Preliminary.

Chart 93

## Disposable Personal Income




Seasonally adjusted annual rate. 1979 preliminary.
Source: U.S. Department of Commerce

### Disposable Personal Income[1]

| | 1977 III | 1977 IV | 1978 I | 1978 II |
|---|---|---|---|---|
| | *Billion dollars* | | | |
| DPI, current prices | 1,323.2 | 1,361.2 | 1,395.0 | 1,437.3 |
| Change from previous quarter | 37.2 | 38.0 | 33.8 | 42.3 |
| DPI, 1972 prices | 936.3 | 951.8 | 956.6 | 966.1 |
| Change from previous quarter | 14.8 | 15.5 | 4.8 | 9.5 |

| | 1978 III | 1978 IV | 1979 I | 1979 II[2] |
|---|---|---|---|---|
| | *Billion dollars* | | | |
| DPI, current prices | 1,476.5 | 1,524.8 | 1,572.2 | 1,601.7 |
| Change from previous quarter | 39.2 | 48.3 | 47.4 | 29.5 |
| DPI, 1972 prices | 976.2 | 991.5 | 996.6 | 993.0 |
| Change from previous quarter | 10.1 | 15.3 | 5.1 | -3.6 |

[1] Seasonally adjusted annual rates. [2] Preliminary.

# GENERAL ECONOMY

Personal consumption expenditures on a constant dollar basis turned down in the second quarter, and reductions are projected for the rest of the year.

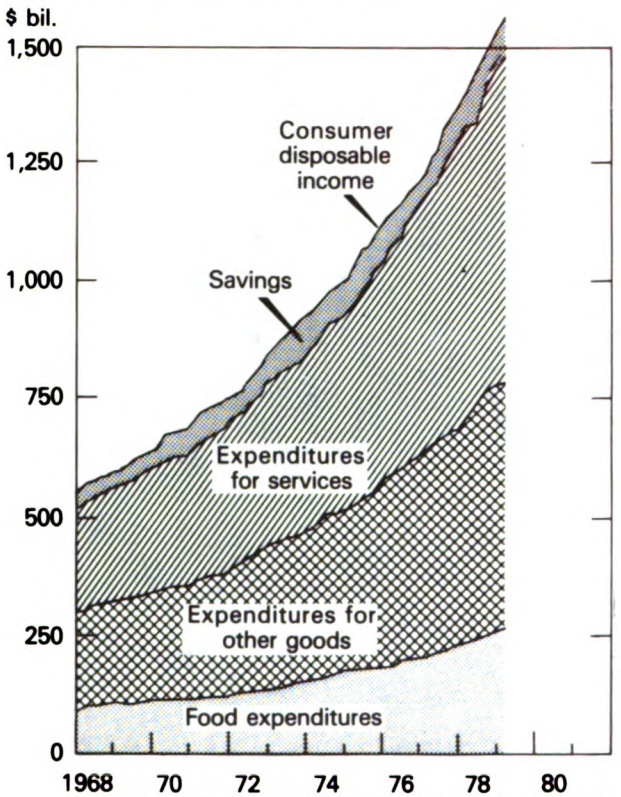
Disposable personal income measured in current prices advanced during 1979 at about the same rate as in 1978. However, after adjustment for inflation, real income began to decline in the second quarter.

The share of after-tax income spent for food held about steady in 1979—a little more than 16 percent. Worldwide, the U.S. share compares favorably with other countries, since Americans spend a relatively smaller proportion of their incomes for food on the average.

---

**Chart 94**

## Income and Expenditures




Consumer disposable income does not include interest paid by consumers and personal transfer payments to foreigners. Source: U.S. Department of Commerce, seasonally adjusted annual rates.

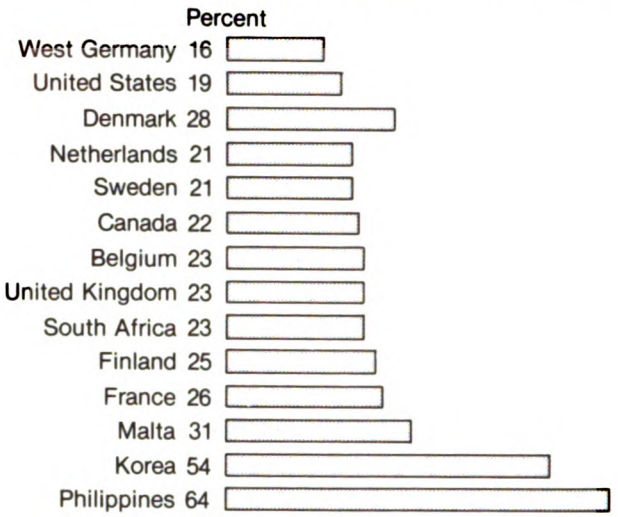
**Income and Expenditures** [1]

| | 1977 avg. | 1978 avg. | 1979 I | 1979 II[2] |
|---|---|---|---|---|
| | *Billion dollars* | | | |
| Disposable personal income (DPI) | 1,305.1 | 1,458.4 | 1,572.2 | 1,602.1 |
| Personal consumption expenditures | 1,210.0 | 1,350.9 | 1,454.2 | 1,475.0 |
| Foods[3] | 217.9 | 240.7 | 260.0 | 263.1 |
| Other goods | 442.3 | 490.4 | 524.9 | 555.7 |
| Services | 549.8 | 619.8 | 669.3 | 686.2 |
| Savings | 65.0 | 72.0 | 792. | 87.2 |
| Other outlays[4] | 30.2 | 36.4 | 38.8 | 39.5 |
| | *Percent* | | | |
| Food expenditures as percentage of DPI | 16.7 | 16.5 | 16.5 | 16.4 |

[1] Quarterly data, seasonally adjusted annual rates. [2] Preliminary. [3] Excludes alcoholic beverages. [4] Includes interest paid by consumers and personal transfer payments to foreigners.

**Chart 95**

## Share of After-Tax Income Spent on Food




1975 data. Canada and United States include nonalcoholic beverages. West Germany includes alcoholic and nonalcoholic beverages. Source: U.N. National Accounts of Statistics and National Sources.

**Chart 96**

## Reasons for Unemployment


June 1979 data. Percent of unemployed. Persons 20 years old and over. Source: Bureau of Labor Statistics.

# CONSUMER PRICES

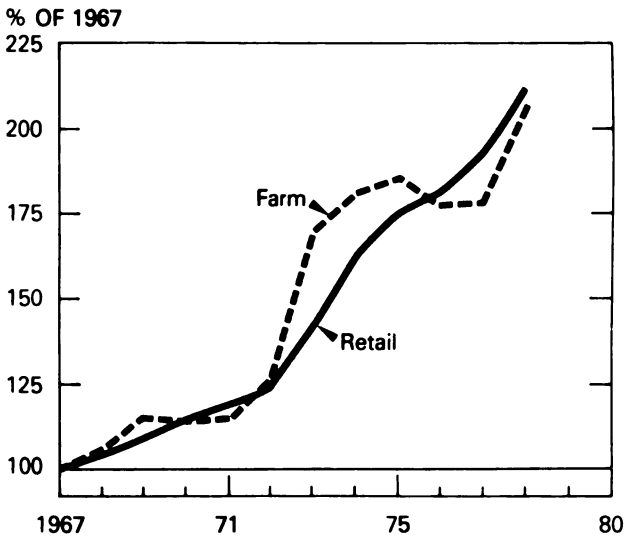
The Consumer Price Index for all Urban Consumers was 216.6 in June 1979, 11 percent higher than a year earlier. Since 1972, the index for food prices has risen 2.3 percent faster than the all-items index, and 1978-79 food price increases have widened the gap.

Prices for food consumed away from home have increased more rapidly than prices for food at home except during periods of rapid food price increases, when the indexes have moved together.

The cost of food at home for a family of four (two adults and two children, ages 12-19) in June 1979 ranged from $51.50 per week at the thrifty level to $100.20 at the liberal level.

Chart 97

## Food Prices: Retail and Farm Value




Retail prices, all foods, Bureau of Labor Statistics
Farm value of U S-produced farm foods. 1978 preliminary

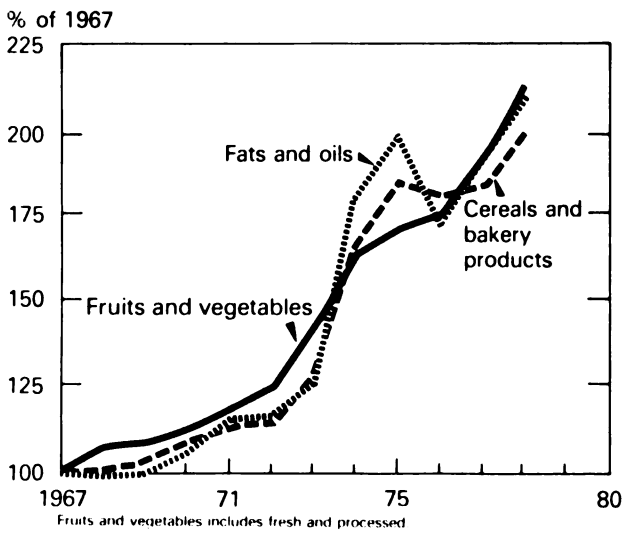
### Food Price Changes

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Percentage of 1967* | | | |
| Farm value[1] | 187.7 | 177.8 | 178.1 | 207.4 |
| Retail[2] | 175.4 | 180.8 | 192.2 | 211.4 |
| Retail, by food group: | | | | |
| Meat | 177.9 | 178.2 | 174.2 | 206.8 |
| Poultry | 162.4 | 155.7 | 156.7 | 172.9 |
| Eggs | 157.8 | 172.4 | 166.9 | 157.8 |
| Dairy products | 156.6 | 169.3 | 173.9 | 185.6 |
| Fruits and vegetables: | | | | |
| Fresh | 166.1 | 170.2 | 193.4 | 218.5 |
| Processed | 178.3 | 183.0 | 188.8 | 208.7 |
| Cereal and bakery | 184.8 | 180.6 | 183.5 | 199.9 |
| Fats and oils | 198.6 | 173.7 | 191.4 | 209.6 |

[1] Farm value of a market basket of domestically produced foods. [2] Consumer Price Index for all foods, Bureau of Labor Statistics.

Chart 98

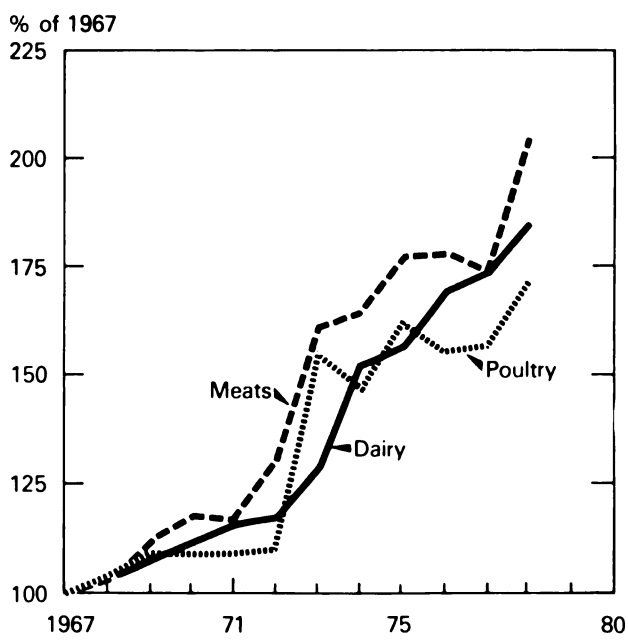
## Retail Prices of Selected Crop Products




Fruits and vegetables includes fresh and processed
1978 preliminary Source Bureau of Labor Statistics

Chart 99

## Retail Prices of Selected Livestock Products




1978 preliminary Source Bureau of Labor Statistics

# CONSUMER PRICES

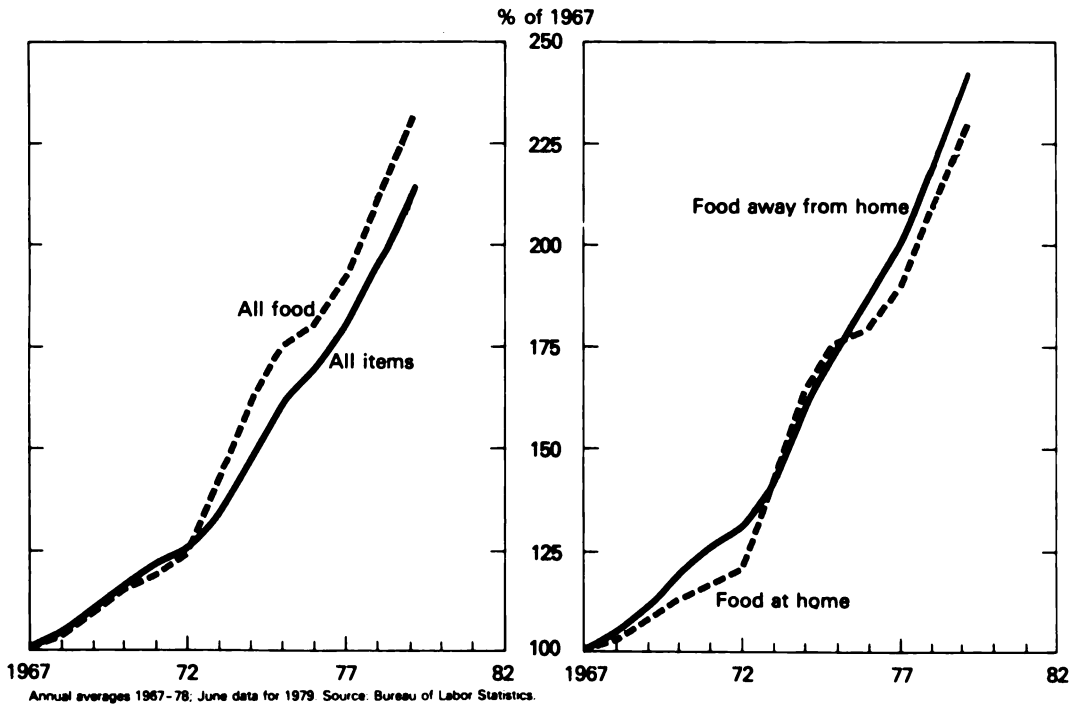
The Consumer Price Index for all Urban Consumers was 216.6 in June 1979, 11 percent higher than a year earlier. Since 1972, the index for food prices has risen 23% faster than the all-items index, and 1978-79 food price increases have widened the gap.

Prices for food consumed away from home have increased more rapidly than prices for food at home except during rapid food price increases, when indexes have moved together.

The cost of food at home for a family of four (two adults and two children, ages 12-19) in June 1979 ranged from $51.50 per week at the thrifty level to $100.20 at the liberal level. These costs assume that all food is purchased at the store and prepared at home.

Chart 100

## Change in Consumer Food Prices




Annual averages 1967-78; June data for 1979. Source: Bureau of Labor Statistics.

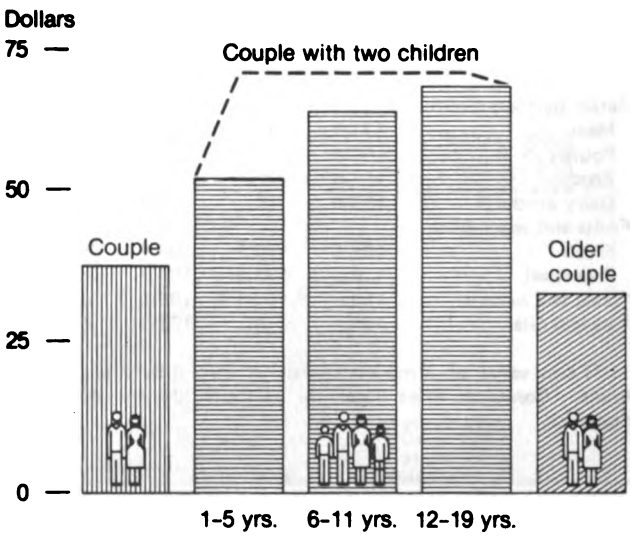
**Family's Weekly Food Cost[1]**

| | Thrifty plan | Low-cost plan | Moderate cost plan | Liberal plan |
|---|---|---|---|---|
| | | *Dollars* | | |
| Couple, 20-54 years | 28.40 | 37.10 | 46.60 | 55.90 |
| Couple, 20-54 years with: | | | | |
| Child, 1-5 years | 34.50 | 44.80 | 56.20 | 67.40 |
| 2 children, 1-5 years | 39.90 | 51.60 | 64.60 | 77.50 |
| 2 children, 6-11 years | 48.00 | 62.30 | 78.40 | 93.90 |
| 2 children, 12-19 years | 51.50 | 66.60 | 83.60 | 100.20 |
| Child, 15-19 years | 41.00 | 53.20 | 66.80 | 80.10 |
| Couple, 55 years and over | 25.40 | 32.90 | 41.00 | 48.90 |

[1] All meals at home or taken from home, U.S. average; June 1979 data.

Chart 101

## Family's Weekly Food Cost




All meals at home or taken from home. USDA low-cost food plan, June 1979

# CONSUMER PRICES

In the seventies, food prices have risen more slowly in the United States than in nearly any other country—an 8-percent increase in food prices during 1977/78.

About half the 1979 increase in U.S. grocery store food prices came from a 11-percent increase in the marketing spread—a measure of charges for handling, processing, and distributing foods after they leave the farm. About 40 percent of the increase resulted from higher farm commodity prices.

Bigger price tags for fish and imported foods accounted for the remaining 10 percent of the rise in grocery store prices. The cause of rising 1979 prices is only slightly different from the cause in 1978.

Chart 102

## Percentage Increases in Food Prices, 1970-78

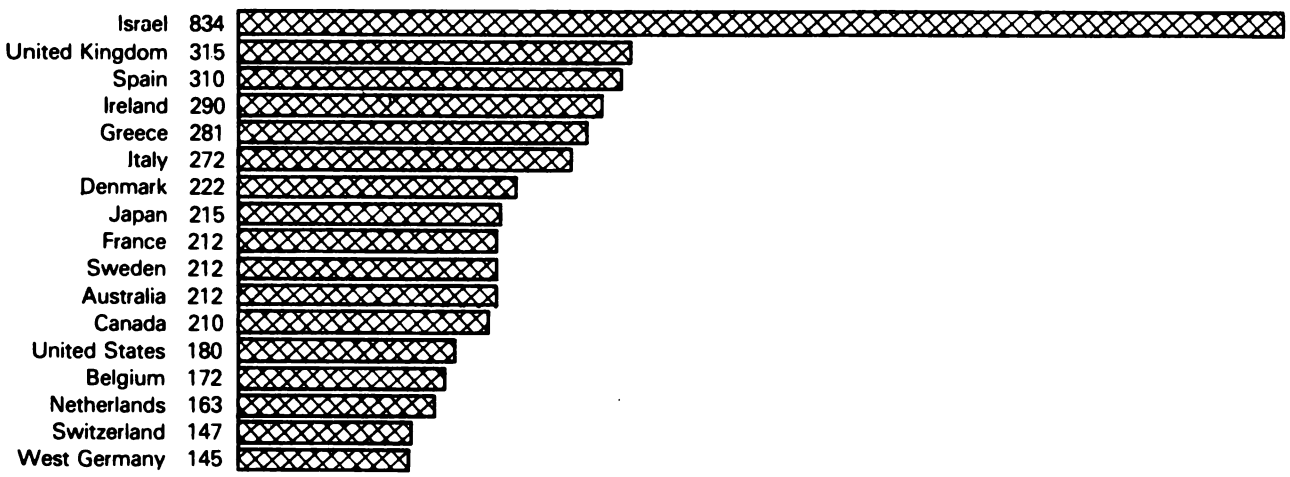
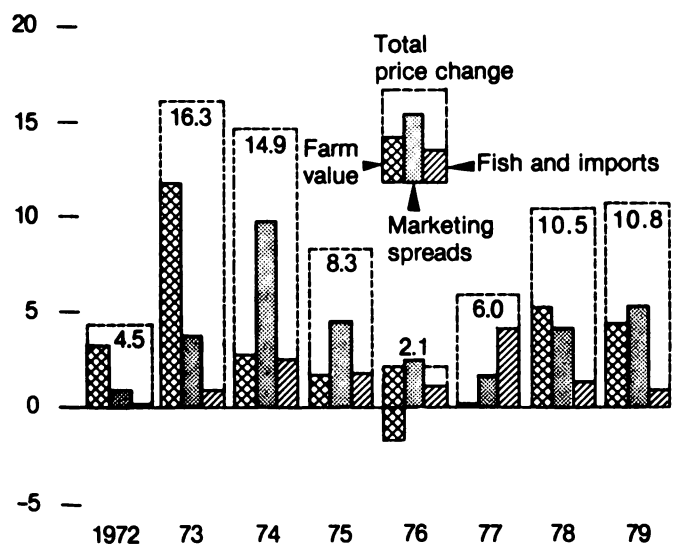



Chart 103

## Contributors to Increases in Food Prices

% change in retail price




Farm value and marketing spread from U.S. farm-food market basket.
Total price change from food-at-home index, Bureau of Labor Statistics.

**Contributors to Increases in Food Prices**

| | 1975 | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|---|
| | *Percentage change* | | | | |
| Retail food price Change | 8.3 | 2.1 | 6.0 | 10.5 | 10.8 |
| Contributors: | | | | | |
| Farm value | 1.8 | -1.6 | .2 | 5.1 | 4.4 |
| Marketing spreed | 4.6 | 2.5 | 1.7 | 4.1 | 5.4 |
| Fish and imports | 1.9 | 1.2 | 4.1 | 1.3 | 1.0 |

[1] Preliminary.

# FOOD MARKETING COSTS

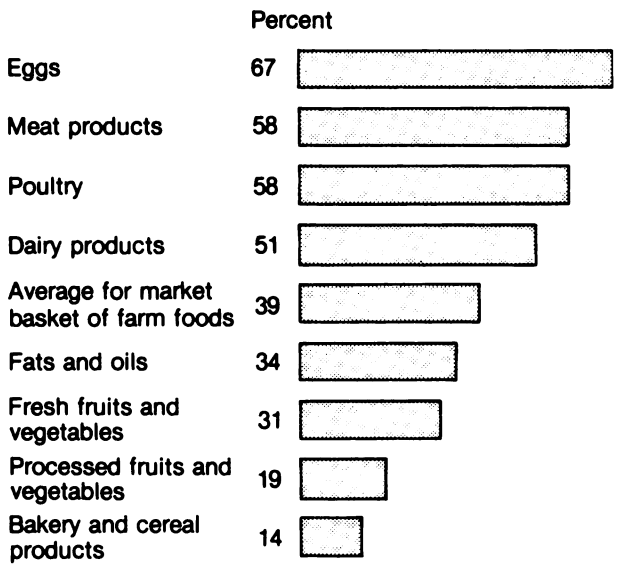
Rising food prices in 1979 reflect increases in farm value of food commodities and increases in the farm-retail price spread, which is the cost of marketing foods after they leave the farm.

Marketing spreads in 1979 will probably average 11 percent higher than in 1978 and will account for more than half the rise in retail prices for U.S. grown foods. Farm value is expected to average about 14 percent above a year ago.

The farmers' share of a market basket of farm foods in 1979 is expected to average about 40 percent. The farm portion of the food dollar varies widely among products, ranging from 67 percent for eggs to 14 percent for bakery and cereal products.

**Chart 104**

## Farm Share of Retail Food Prices



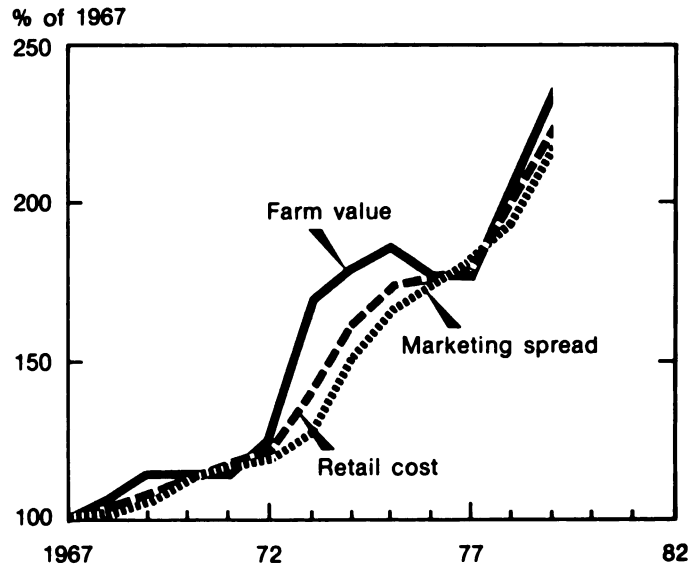

Farm value is the payment to farmers for quantities of food commodities, less the allowance for byproducts, equivalent to the retail unit. 1978 data. Foods from U.S. farms

**Share of Retail Price Represented by Farm Value**

| | 1968 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Percent* | | | |
| Eggs | 61 | 68 | 66 | 67 |
| Meat products | 57 | 54 | 55 | 58 |
| Poultry | 51 | 55 | 56 | 58 |
| Dairy products | 47 | 51 | 50 | 51 |
| Average for market basket of farm foods | 38 | 38 | 38 | 39 |
| Fats and oils | 26 | 32 | 36 | 34 |
| Fresh fruits and vegetables | 20 | 20 | 18 | 19 |
| Baking and cereal products | 16 | 15 | 13 | 14 |

**Chart 105**

## Change In Retail Food Costs, Farm Value, And Marketing Spread




The retail cost is for a market basket of domestically produced foods.
Farm value is the payment to the farmer for farm products equivalent to foods in market basket.
The marketing spread is the gross margin of marketing firms for assembling, processing, transporting, and distributing the products.
1979 forecast.

**Retail Food Costs, Farm Value, and Marketing Spread [1]**

| | 1975 | 1976 | 1977 | 1978 | 1979[2] |
|---|---|---|---|---|---|
| | *Percentage of 1967* | | | | |
| Retail cost | 173.6 | 175.4 | 179.2 | 199.4 | 222.0 |
| Farm value[3] | 187.7 | 177.8 | 178.1 | 207.4 | 236.0 |
| Farm retail spread[4] | 165.1 | 174.0 | 180.0 | 194.5 | 215.0 |

[1] For a market basket of domestically produced foods. [2] Preliminary. [3] Payment to farmer for farm products equivalent to foods in market basket. [4] Gross margin of marketing firms for assembling, processing, transporting, and distributing.

# FOOD MARKETING COSTS

Consumer retail expenditures for foods grown on U.S. farms are expected to total $231 billion in 1979, 11 percent higher than in 1978. Farmers should receive about $75 billion for the farm commodities making up these foods, or 12 percent more than in 1978.

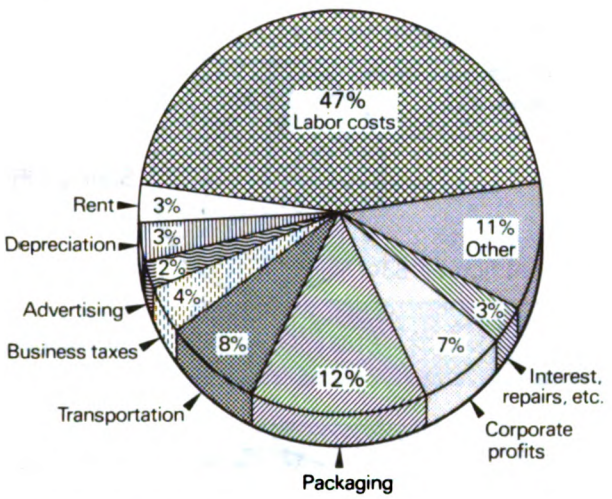
The marketing bill—charges for handling, processing, and distributing foods after they leave the farm—will probably total about $156 billion in 1979, 11 percent higher than in 1977. Most of this increase will result from labor and food packaging costs, the major components of the marketing bill.

Rising marketing charges have been the leading source of rising food costs.

---

Chart 106

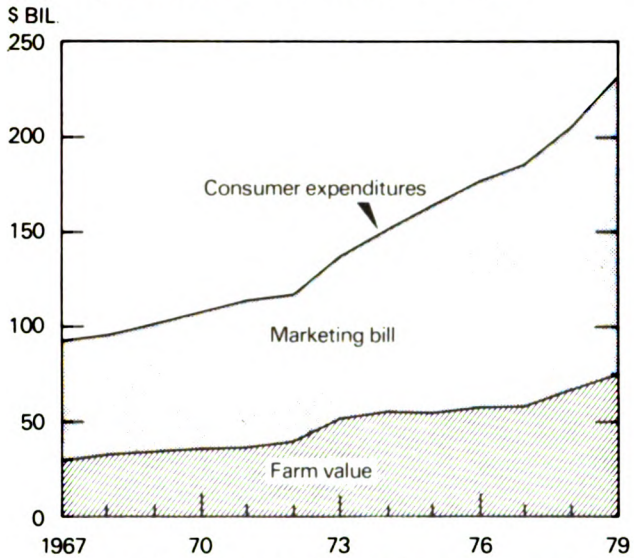
## What Makes Up the Farm-Food Marketing Bill




Transportation is intercity rail and truck. Corporate profits are before taxes. Other includes utilities, fuel, promotion, local hired transportation, insurance, etc. 1978 preliminary.

Chart 107

## Marketing Bill, Farm Value, and Expenditures for Farm Foods




For domestic farm foods purchased by civilian consumers for consumption both at home and away from home. 1979 preliminary.

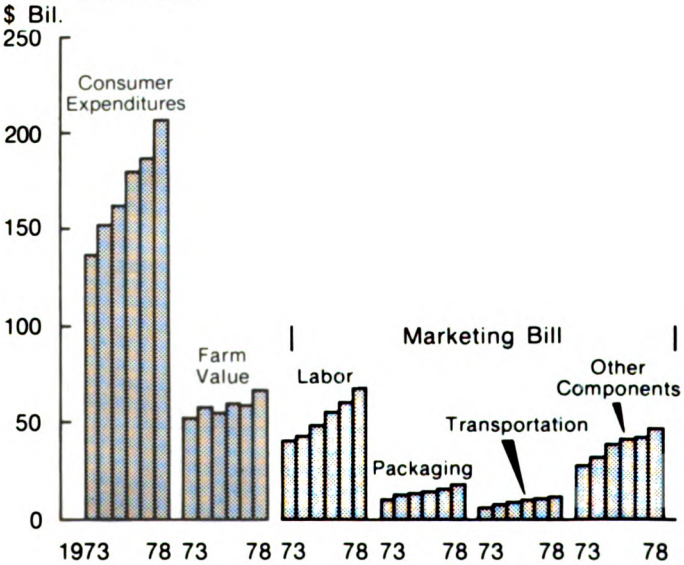
### Components of Consumer Expenditures For Farm Foods

| | 1972 | 1976 | 1977 | 1978[1] |
|---|---|---|---|---|
| | | *Billion dollars* | | |
| Retail expenditures | 118.8 | 178.8 | 186.4 | 207.7 |
| Farm value | 39.1 | 57.6 | 57.5 | 67.2 |
| Marketing bill: | 79.7 | 121.2 | 128.9 | 140.5 |
| Labor[2] | 37.4 | 54.0 | 59.8 | 66.0 |
| Packaging materials | 10.2 | 15.0 | 16.2 | 17.5 |
| Transportation, rail and truck[3] | 6.1 | 9.5 | 10.0 | 10.8 |
| Corporate profits before taxes | 4.0 | 7.9 | 8.5 | 9.5 |
| Other[4] | 22.0 | 34.8 | 34.4 | 36.7 |

[1] Preliminary. [2] Includes wages and salaries. Also includes imputed earnings of proprietors, partners, and family workers. [3] Does not include local hauling charges. [4] Includes business taxes, depreciation, rent, advertising, interest, energy, and numerous other costs.

Chart 108

## Where Consumer Expenditures for Farm Foods Go




Other components include business taxes, corporate profits, energy, depreciation, rent, advertising and numerous other costs. 1978 preliminary.

# MONEY VALUE OF FOOD

The money value of food used by U.S. households was determined from preliminary data from the 1977-78 Nationwide Food Consumption Survey. Information from 3,500 housekeeping households surveyed in the 48 conterminous States in the spring of 1977 is presented here.

The value of food used here includes the value of food used by household members and guests that was bought, home produced, or received as gift or pay. The value of the food that was not purchased is based on the average price paid for similar food by survey households in the same region.

Suburban households were larger, and the value of their food—both at home and away

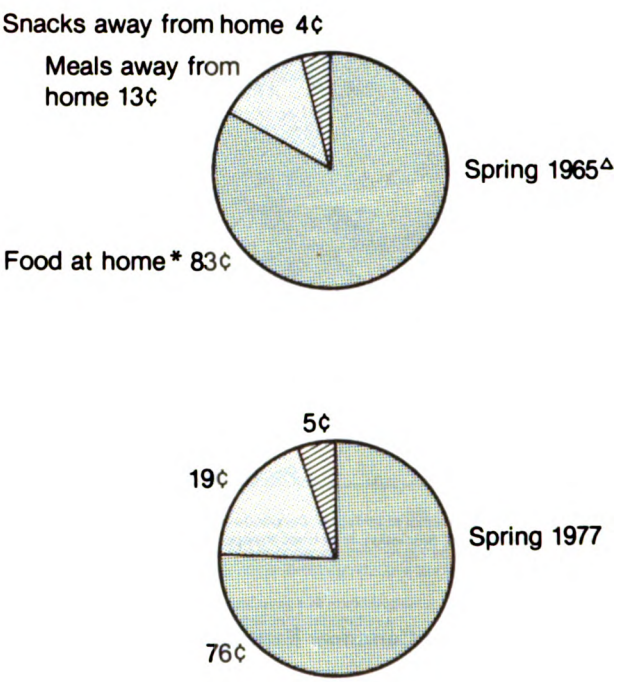
---

Chart 109

## Food Away from Home, Expense Per Week by Income


Chart 110

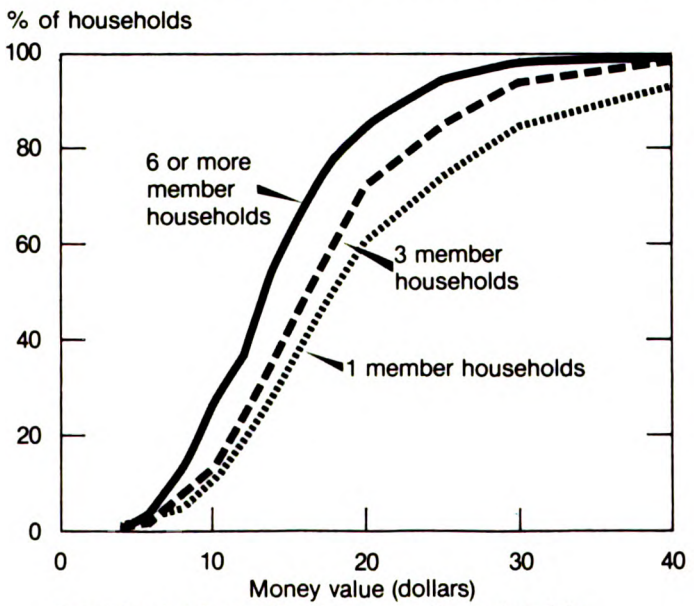
## Household Food Dollar




*Includes the value of food used by households that bought, home produced or received as a gift or pay. △Household Food Consumption Survey.

Chart 111

## Food at Home, Value per Person per Week




21 meal (3 meals daily per week) equivalent person. Money value includes the value of food used by households that was bought, home produced or received as gift or pay.

A "21-Meal-Equivalent Person" is one who eats 21 meals a week (three meals a day for 7 days). Household size is adjusted because of variation among households in the proportion of a week's meals eaten from home food supplies.

USDA Nationwide Food Consumption Survey, 48 States, Spring 1977 preliminary.

# MONEY VALUE OF FOOD

from home—was greater than for households in the central city and nonmetropolitan areas. Households in the Northeast used food with the highest money value, and those in the South used food with the lowest value.

As the income of households increased, so did the money value of all food used—food at home, and expense for food consumed away from home. The money value of food per household rose with household size, but the value per household member decreased.

The part of the household food dollar that was used for food away from home was 40 percent more in 1977 than 1965.

---

Chart 112

## Value of Food per Household per Week, Spring 1977

### By Urbanization

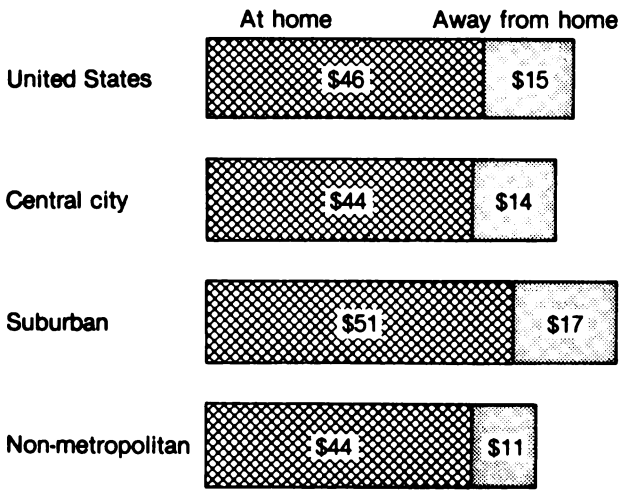



Chart 114

### By Region

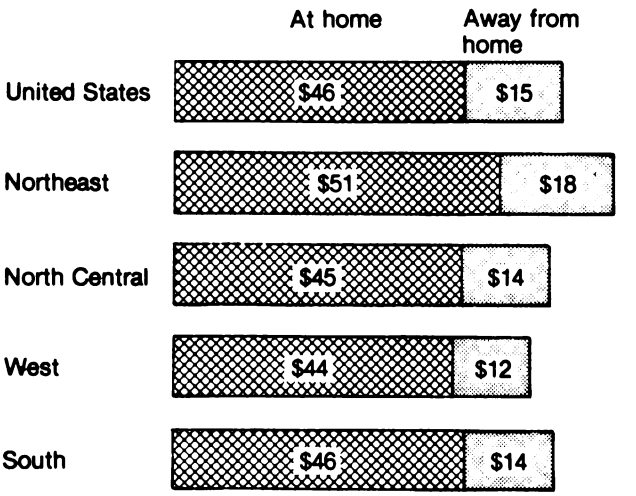



Chart 113

### By Income

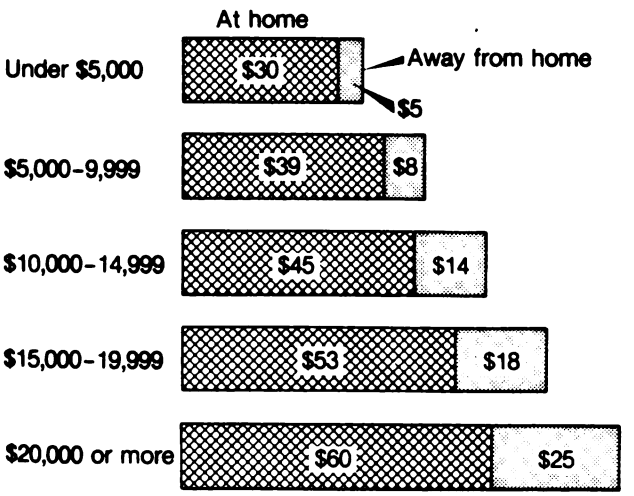
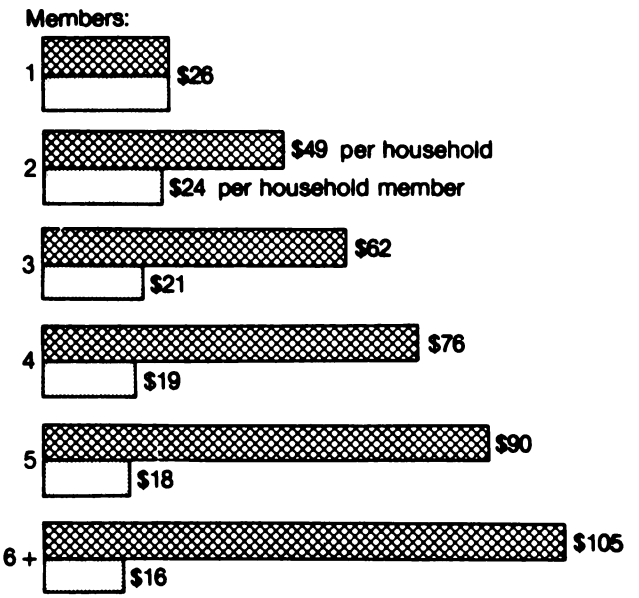



Chart 115

### By Household Size




Value includes the money value of food used by households that was bought, home produced or received as gift or pay.

# NUTRIENT QUALITY OF DIETS

The quality of diets of U.S. households was determined from preliminary data from the 1977-78 USDA Nationwide Food Consumption Survey.

Information from 3,500 housekeeping households surveyed in the 48 conterminous States in the spring of 1977 is presented here. Nutrient levels were calculated from information collected on the kinds and amounts of food reported as used by the households during 7 days.

Preliminary data show that food used in a week in most U.S. households was generally sufficient to provide the Recommended Dietary Allowances (RDA) for nutrients studied.

## Household Diets Meeting Recommended Dietary Allowances

Chart 116

### By Income

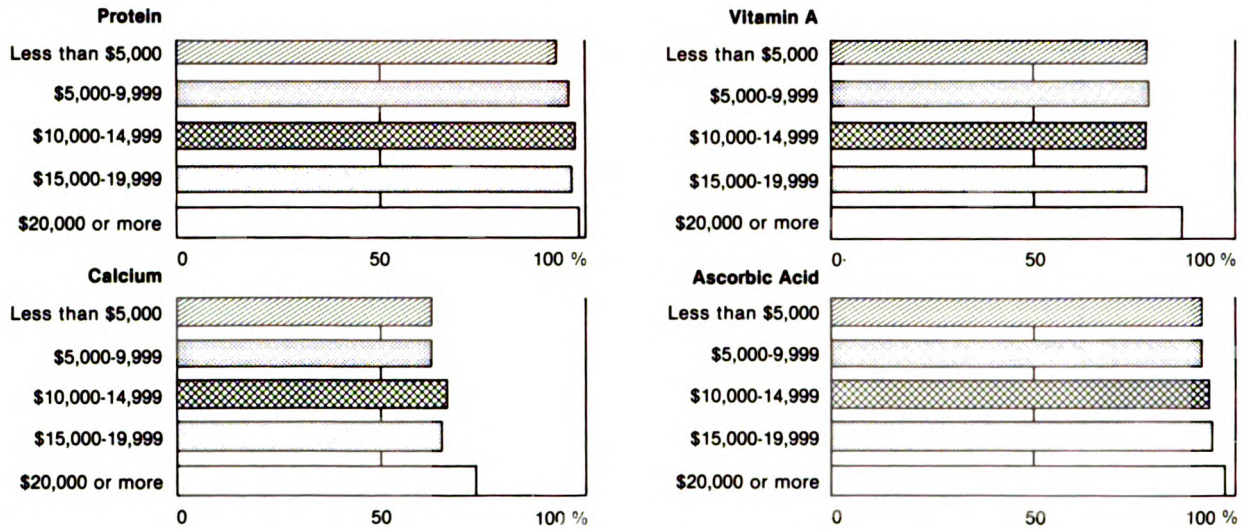



Chart 117

### By Urbanization

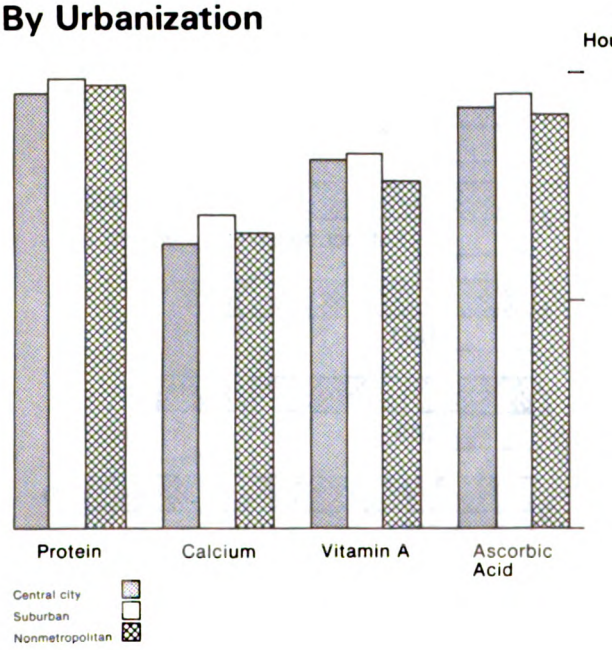
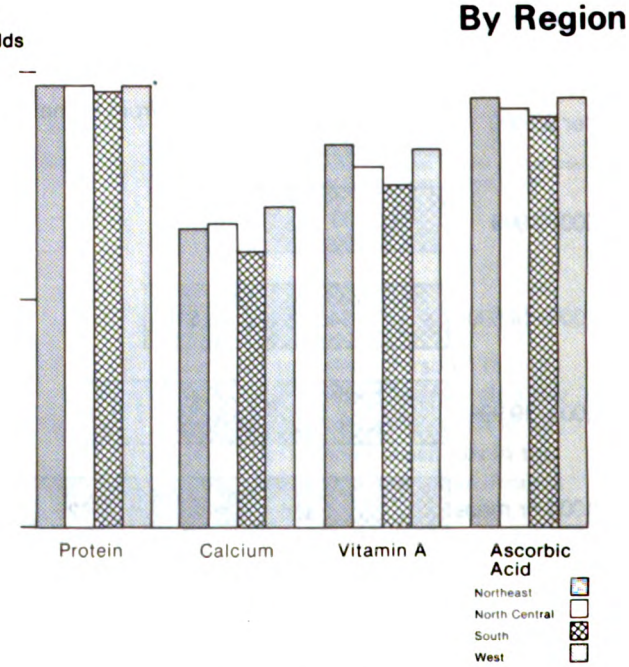



Chart 118

### By Region




Recommended Dietary Allowances, 1974. USDA Nationwide Food Consumption Survey, 48 States, Spring 1977 preliminary.

# NUTRIENT QUALITY OF DIETS

However, each person in most households may not have actually eaten food that met the RDA because (1) the household food may include some edible food that was discarded or leftovers fed to pets, and (2) household food may not have been divided among household members according to nutritional needs.

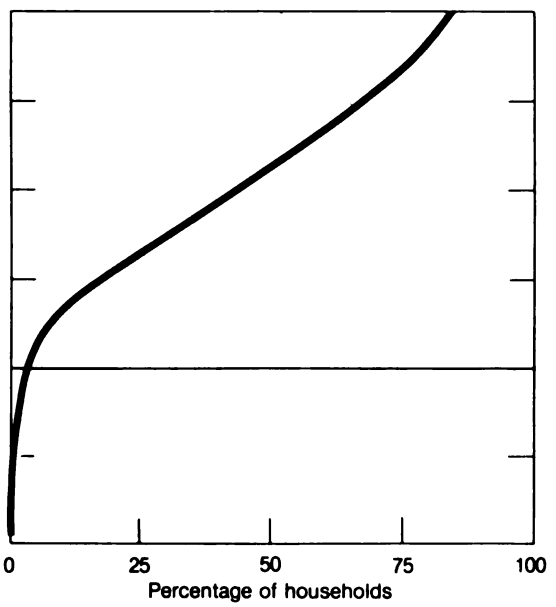
Generally, as income levels rose, a slightly greater percentage of households used food that met allowances. High income itself, however, did not assure that households met the RDA. More than one-fourth of the households with incomes of $20,000 and over failed to meet the RDA for calcium.

---

**Nutrient Levels of U.S. Households**

Chart 119

**Protein**




% of RDA

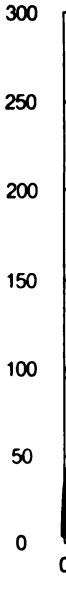



Chart 120

**Food Energy**

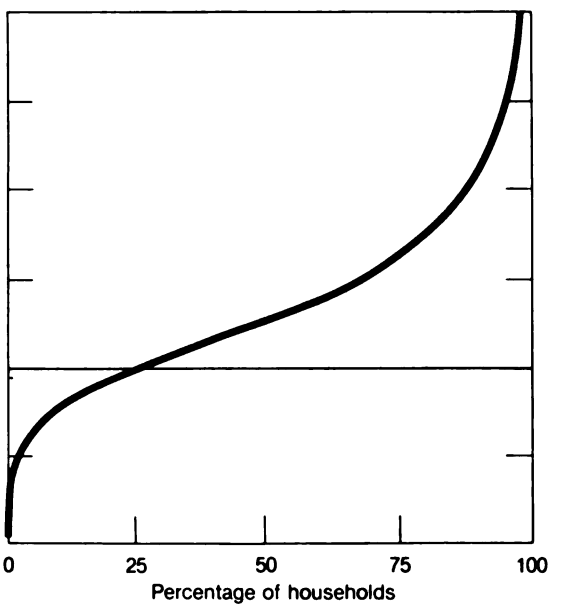
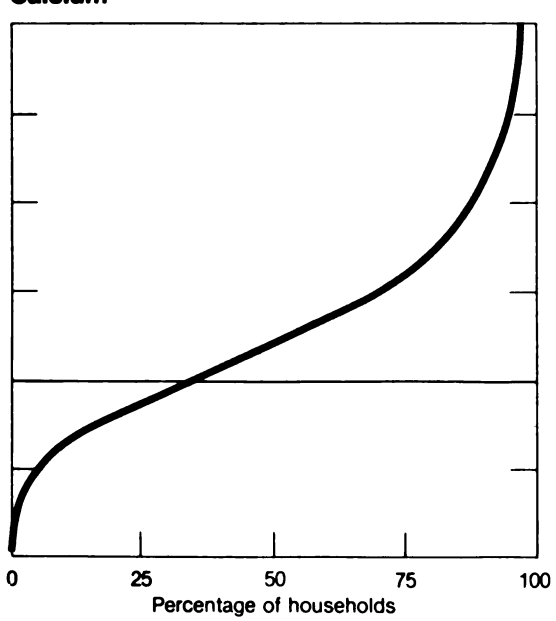



Chart 121

**Calcium**




% of RDA

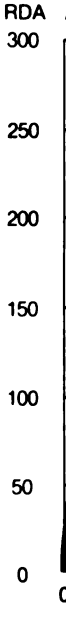
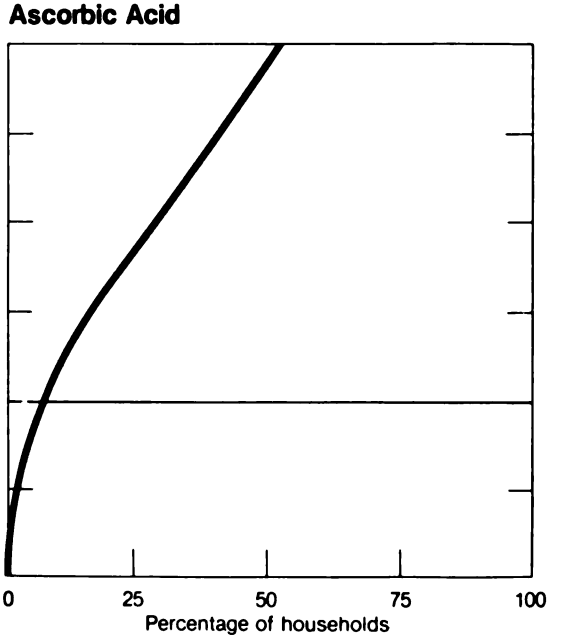



Chart 122

**Ascorbic Acid**




Recommended Dietary Allowances, 1974. USDA Nationwide Food Consumption Survey, 48 States, Spring 1977 preliminary.

# FOOD CONSUMPTION

Per capita food consumption has been relatively stable during 1977-79. Total food consumption has kept pace with population growth. Food derived directly from crops has increased, while food of animal origin has declined.

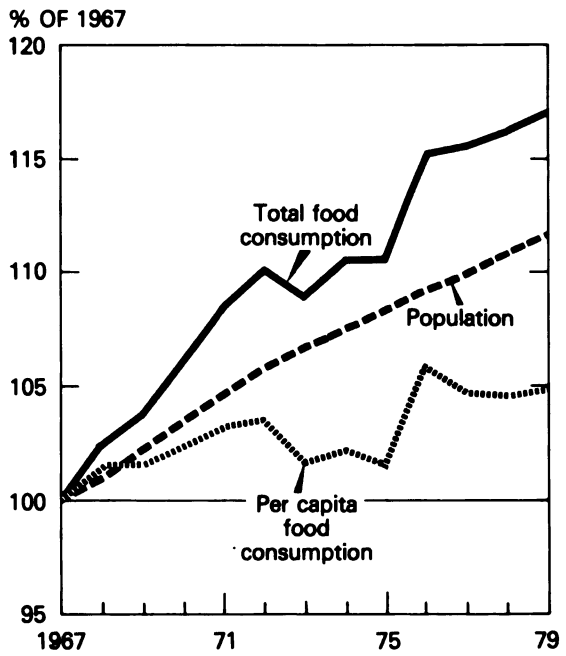
Consumption of red meats has dropped the most, as a result of the cutback in beef output, reflecting the downturn in the cattle cycle.

The reduction in beef has spurred demand for other protein foods. Poultry consumption—broilers and turkeys—has grown, as has that of fish.

Consumption of dairy products has increased slightly. Egg consumption has also risen after falling for many years.

Chart 123

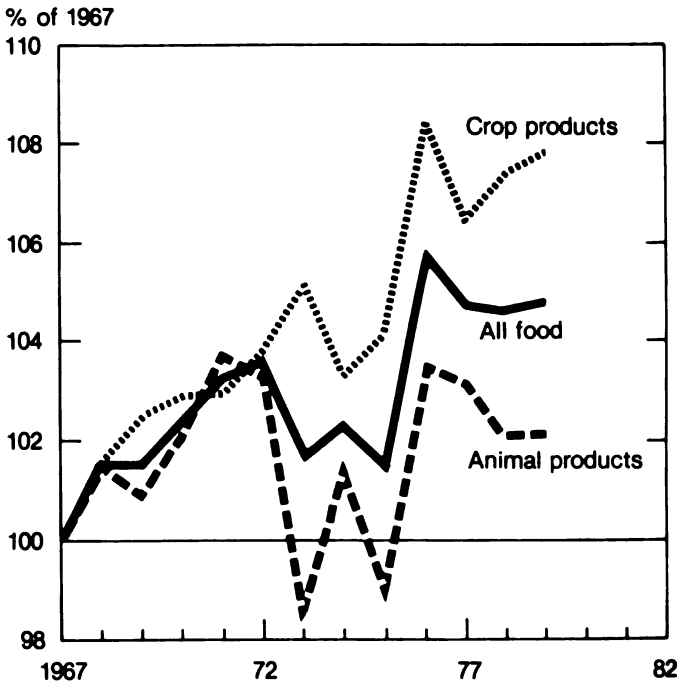
## Population and Food Consumption




Total food consumption based on retail weight using constant retail prices as index weights. Civilian population on July 1, for 50 States.

Chart 124

## Per Capita Food Consumption




### Population and Food Consumption

| | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|
| | *Million* | | | |
| Population[2] | 213.0 | 214.7 | 216.4 | 218.2 |
| | *Percentage of 1967* | | | |
| Population | 109.1 | 109.9 | 110.8 | 111.7 |
| Food consumption:[3] | | | | |
| Total | 114.9 | 114.7 | 115.8 | 117.1 |
| Per capita | 105.3 | 104.4 | 104.5 | 104.8 |

[1] Preliminary. [2] Civilian population as of July 1, including Alaska and Hawaii. [3] Individual food items are combined in terms of 1967-69 retail prices.

### Per Capita Food Consumption[1]

| | 1976 | 1977 | 1978 | 1979[2] |
|---|---|---|---|---|
| | *Percentage of 1967* | | | |
| All food | 105.8 | 104.7 | 104.6 | 104.8 |
| Animal products | 103.5 | 103.1 | 102.1 | 102.1 |
| Meat | 107.9 | 107.0 | 103.0 | 100.5 |
| Poultry | 116.0 | 119.4 | 125.9 | 136.7 |
| Eggs | 85.5 | 84.8 | 86.5 | 87.7 |
| Dairy[3] | 101.6 | 101.0 | 101.5 | 102.0 |
| Crop products | 108.4 | 106.4 | 107.4 | 107.8 |
| Fruits[4] | 107.1 | 105.9 | 106.1 | 107.1 |
| Vegetables[5] | 107.2 | 107.0 | 108.6 | 109.2 |
| Cereal and bakery | 104.0 | 100.8 | 101.4 | 101.4 |
| Vegetable oils | 146.4 | 140.2 | 147.9 | 142.1 |

[1] Individual items combined, using 1967-69 prices. [2] Preliminary. [3] Excludes butter. [4] Includes melons. [5] Includes potatoes.

# FOOD CONSUMPTION

Crop products that have expanded in recent years are vegetables and flour and cereals. Fruit consumption has been relatively constant. Sugars and sweeteners reached a high in 1977.

Consumption of coffee, tea, and cocoa continued at fairly low levels due to frost damage in Brazil and high prices.

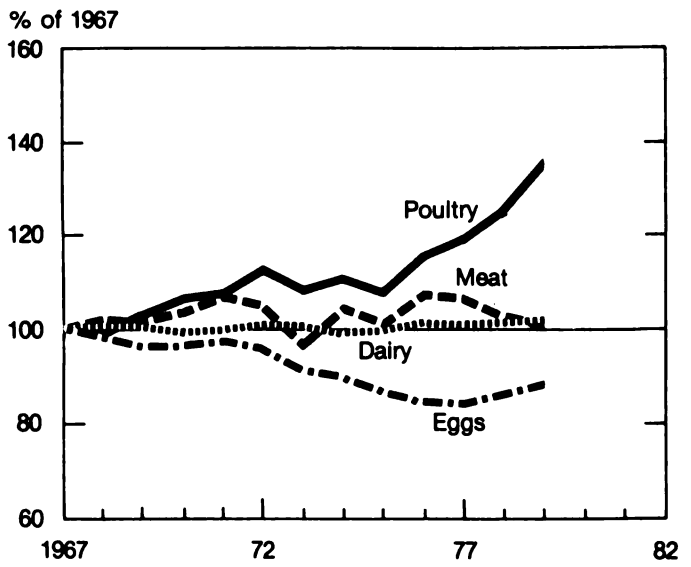
Per capita consumption of fats and oils has risen during the past 12 years. While the use of animal fats has declined, products of vegetable origin have shown substantial gains.

Another significant trend is the increase in processed fruit and vegetable consumption. The consumption of canned frozen, and other processed items has gone up faster than that of fresh produce.

---

Chart 125

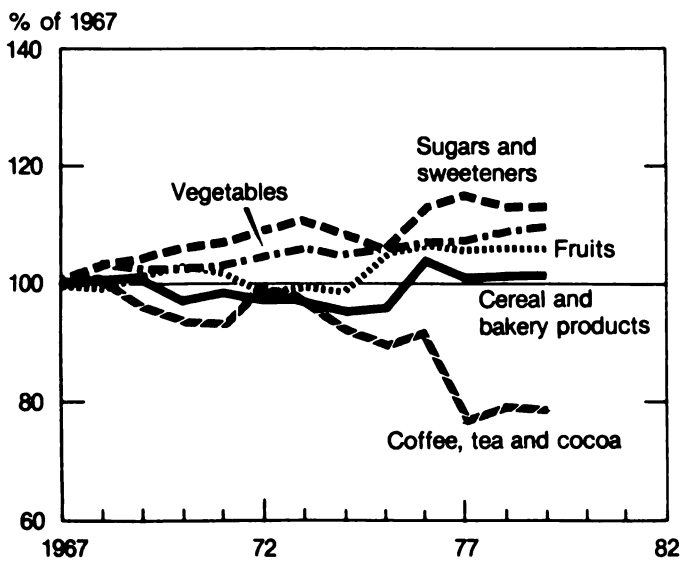
**Per Capita Consumption of Selected Livestock Products**




Dairy excludes butter.

Chart 126

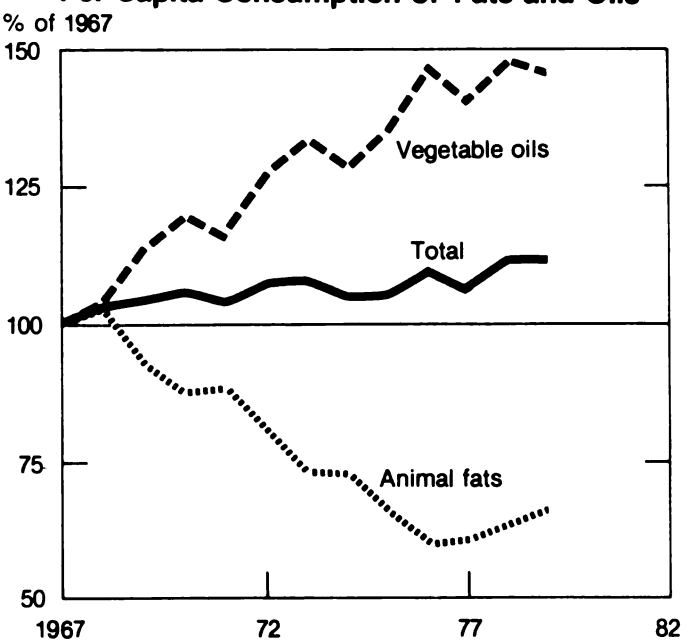
**Per Capita Consumption of Selected Crop Products**




Vegetables include potatoes. Fruits include melons.

Chart 127

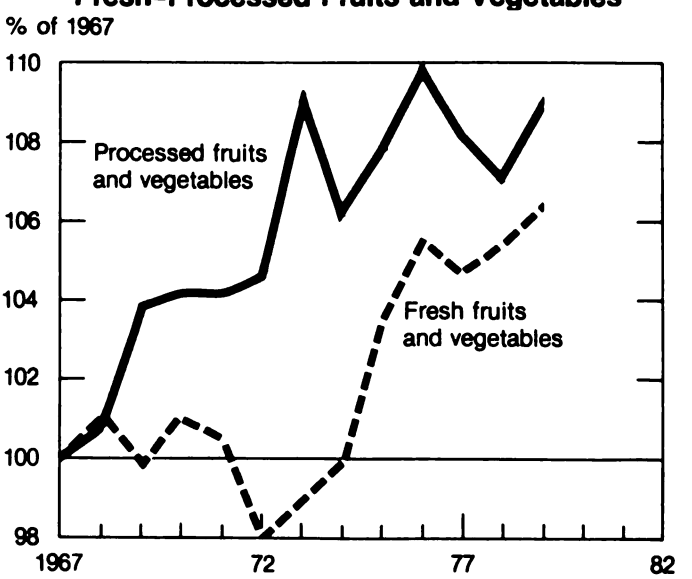
**Per Capita Consumption of Fats and Oils**




Animal fat includes butter.

Chart 128

**Per Capita Consumption of Fresh-Processed Fruits and Vegetables**



# FOOD CONSUMPTION

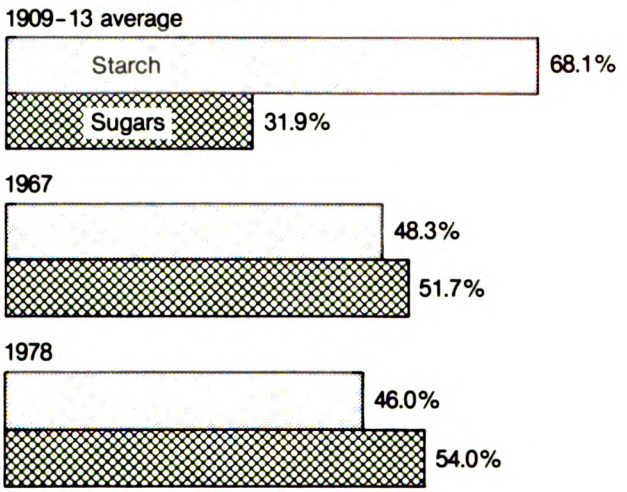
Sugars provided one-half of the carbohydrates in the 1978 food supply, compared with one-third in 1909-13. Refined sugar (sucrose) accounts for one-half of the total sugars; sirups and other sweeteners, one-fifth; and sugar naturally occurring in foods, three-tenths.

Since 1909-13, industrial use of refined sugar has increased, and now accounts for two-thirds of total sugar consumption. Beverages, mostly soft drinks, account for one-fourth; cereal and bakery products, one-sixth; confectionery products, one-tenth; processed fruits and vegetables, one-twelfth; dairy and other food products, one-twelfth.

---

Chart 129

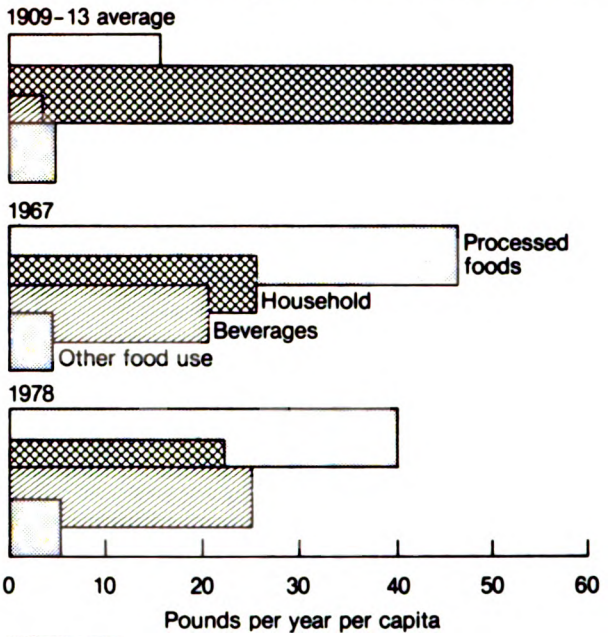
**Carbohydrate from Starch and Sugars, Civilian Consumption**




1978 preliminary.

Chart 131

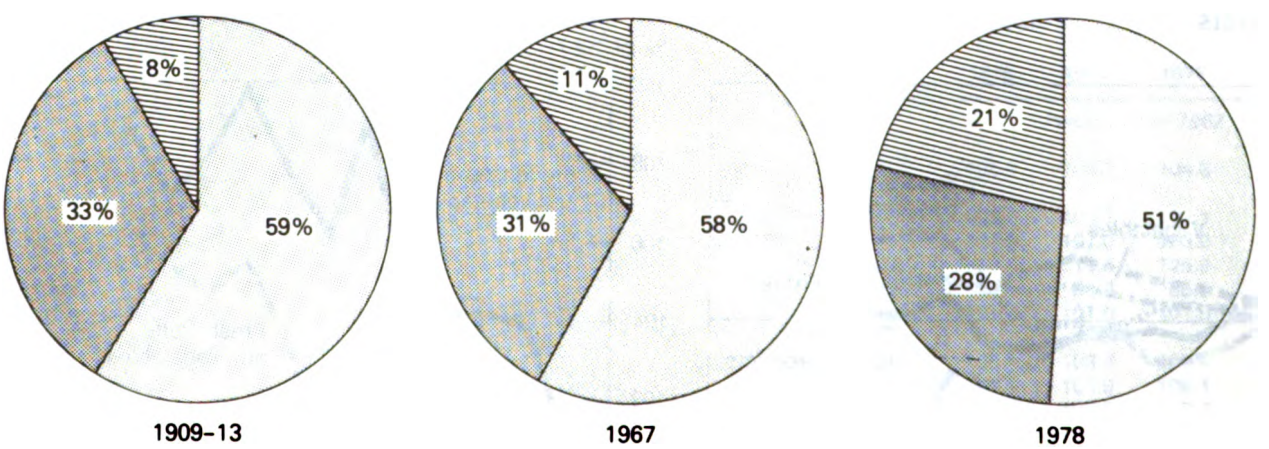
**Use of Refined Sugar, Civilian Consumption**




1978 preliminary.

Chart 130

**Sources of Caloric Sweeteners, Civilian Consumption**




1978 preliminary.

# CLOTHING

Clothing budgets for farm adults provide cost estimates by age, sex, and marital status at four cost levels. The levels correspond to levels of expenditure consistent with USDA food plans.

Married women ages 35-44 showed the greatest variation, with annual clothing costs in 1978 ranging from $21 at the thrifty level to $669 at the liberal level.

At the lower cost levels, annual clothing budgets for men generally are higher than those for women, while the reverse is true at the higher cost levels. Clothing costs are generally greatest in the younger age groups for both unmarried and married men and women.

Outerwear costs generally account for the greatest proportion of total annual costs.

Chart 132

## Cost of Clothing Farm Adults

### Men and Women, Four Cost Levels

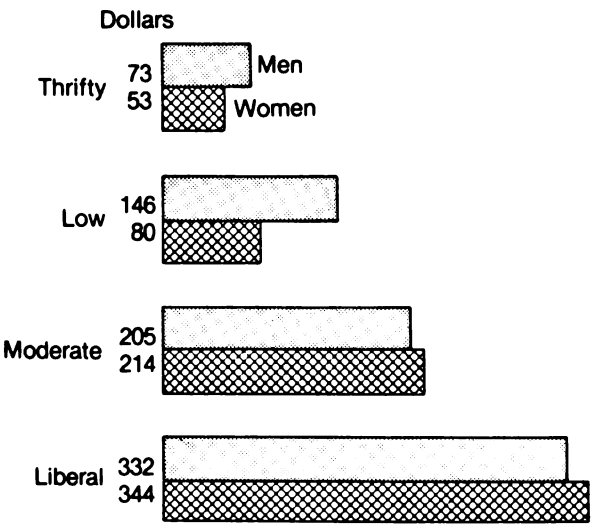
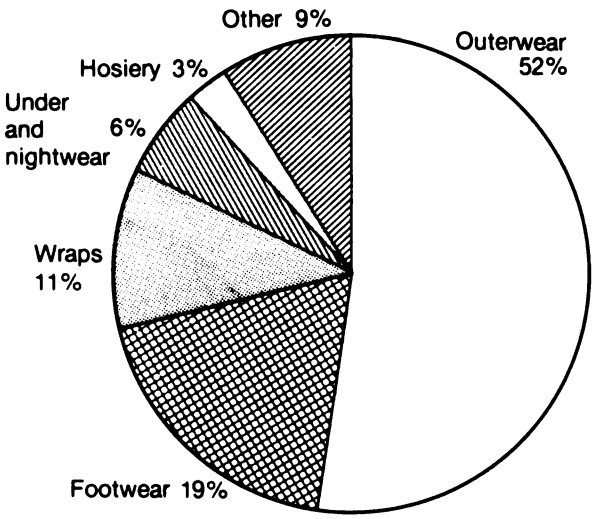



Chart 133

### Men, Moderate Cost Level




1978 annual costs. Married, ages 45-54.

**Cost of Clothing Farm Women, Moderate Level, 1978**

| | Total | Wraps | Outerwear | Under and nightwear | Hosiery | Footwear | Hats and other |
|---|---|---|---|---|---|---|---|
| | | | | *Dollars* | | | |
| Unmarried | | | | | | | |
| 18-24 | 321 | 33 | 196 | 18 | 18 | 36 | 20 |
| 25-64 | 73 | 6 | 27 | 11 | 9 | 17 | 3 |
| 65 and over | 101 | 12 | 39 | 12 | 9 | 19 | 10 |
| Married | | | | | | | |
| 16-34 | 293 | 25 | 137 | 30 | 25 | 44 | 32 |
| 35-44 | 304 | 25 | 151 | 31 | 19 | 44 | 34 |
| 45-54 | 214 | 28 | 96 | 24 | 15 | 35 | 16 |
| 55-64 | 159 | 20 | 64 | 19 | 12 | 33 | 11 |
| 65 and over | 91 | 12 | 36 | 10 | 7 | 22 | 4 |

# ENERGY AND TRANSPORTATION

The price index for used cars—208.9 in June 1979—has advanced faster over the last year than the index for new cars or public transportation. The indexes for automobile maintenance, repairs, and automobile insurance, however, have risen the most.

The cost of owning and operating an automobile varied from 18 cents per mile for a subcompact to 24 cents per mile for a standard model.

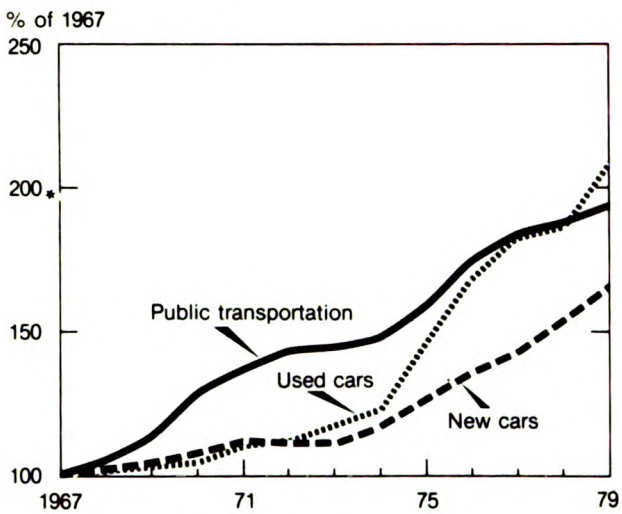
The index for gasoline prices, which has shot up since the 1973-74 oil embargo, reached a high of 265.0 in June 1979, or 35 percent more than a year earlier.

The price of fuel oil and coal has also increased substantially since 1973-74, with fuel oil accounting for most of the gain.

---

Chart 134

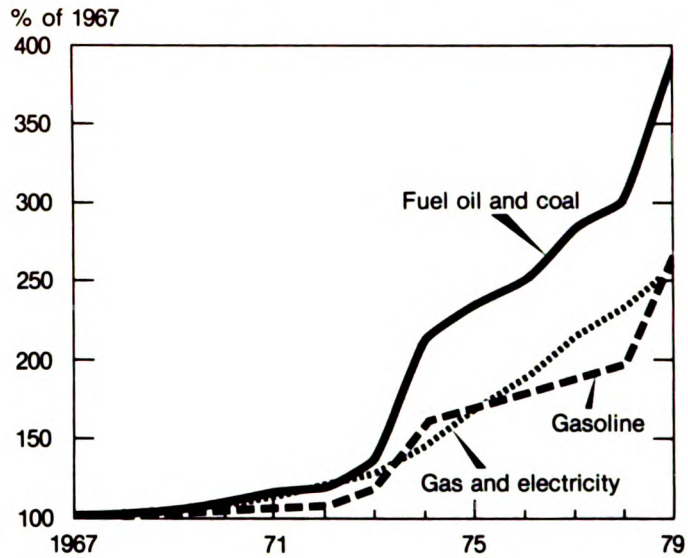
## Change in Consumer Prices—Transportation




Annual averages 1967-78. June data for 1979.
Source: Bureau of Labor Statistics

Chart 135

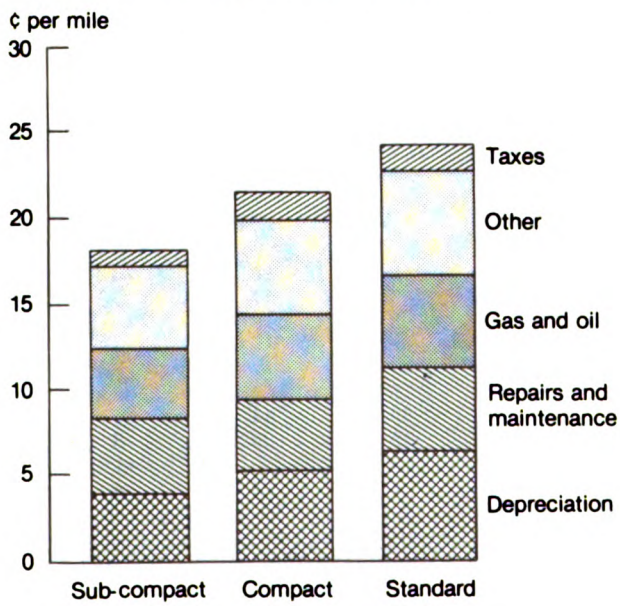
## Change in Consumer Prices—Energy




Annual averages 1967-78; June data for 1979. Fuel oil, coal and gas, and electricity are included in housing index, and gasoline is included in transportation index. Source: Bureau of Labor Statistics.

Chart 136

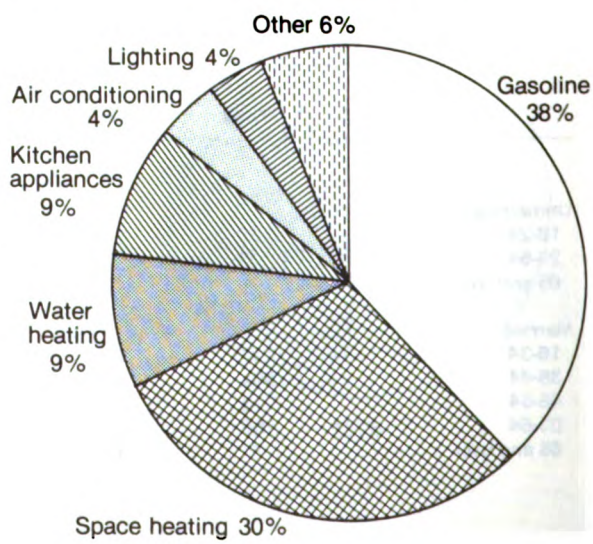
## Cost of Owning an Automobile




1979 preliminary. Source: Department of Transportation.

Chart 137

## Household Energy Consumption




Gasoline consumption is from personal automobiles and lightweight trucks.
Source: Oak Ridge National Laboratory. 1976 data.

# HOUSING

The Consumer Price Index (CPI) for housing increased 12 percent between June 1978 and June 1979. The index for homeownership increased more than average while indexes for rent, taxes, maintenance and repairs and fuel and utilities increased less than average.

In 1978, the median sales price of all houses in the United States was $55,600—up 121 percent from 1971.

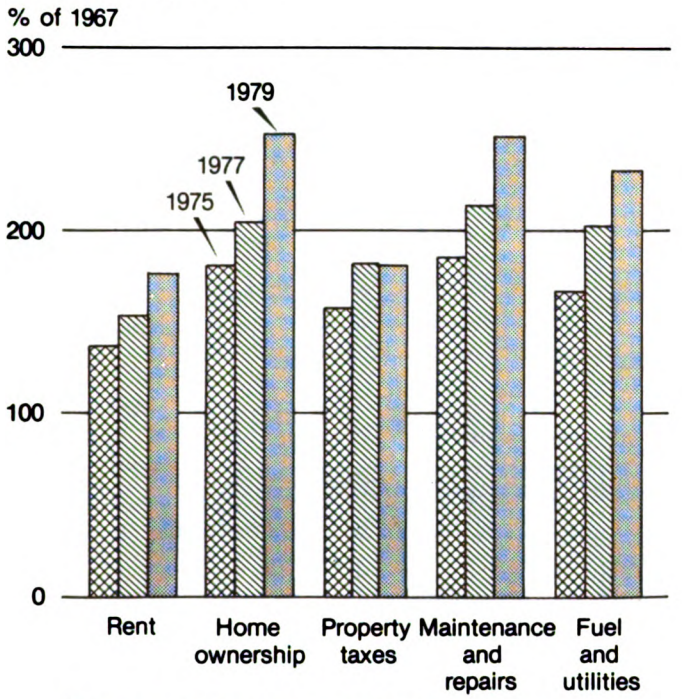
Homeownership is more prevalent in farm areas than in nonfarm areas, with the largest percent being among white farm families.

Major increases in the average purchase price of houses, in interest rates, and in the average years of loan maturity, have combined to boost the cost of a new home substantially.

---

**Chart 138**

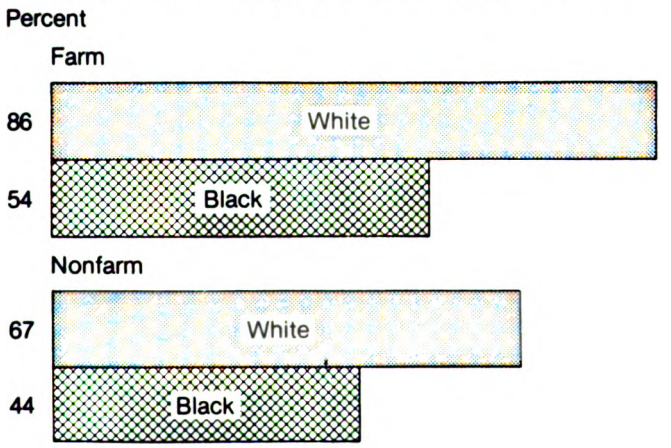
## Housing Costs




Annual averages 1975 and 1977; June data for 1979. Home ownership includes home purchase, mortgage interest, taxes, insurance, maintenance, and repairs.
Source: Bureau of Labor Statistics.

**Chart 139**

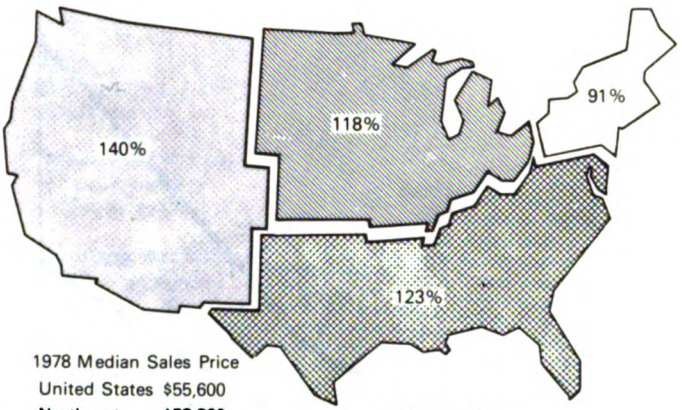
## Home Ownership by Residence and Race




1977 data. Source: Bureau of Census.

**Chart 140**

## Increase in Sale Prices of Houses, 1971-78




| 1978 Median Sales Price | |
|---|---|
| United States | $55,600 |
| Northeast | $58,300 |
| North Central | $59,200 |
| South | $50,200 |
| West | $61,300 |

Source: Bureau of Census.

**Mortgage Loans for New Homes**

| | 1970 | 1972 | 1974 | 1976 | 1978 |
|---|---|---|---|---|---|
| Interest rate (percent) | 8.27 | 7.45 | 8.72 | 8.76 | 9.30 |
| Maturity (years) | 25.1 | 27.2 | 26.3 | 27.2 | 28.0 |
| Purchase price (dollars) | 35,500 | 37,300 | 40,100 | 48,400 | 62,600 |

National averages for all types of lenders.

Source: Federal Home Loan Bank Board.

# HEALTH CARE

The index for hospital room charges has been the fastest rising Consumer Price Index component in the last 10 years. The overall index for medical care has outpaced the all-items index, although some medical items such as prescription drugs have had more moderate increases.

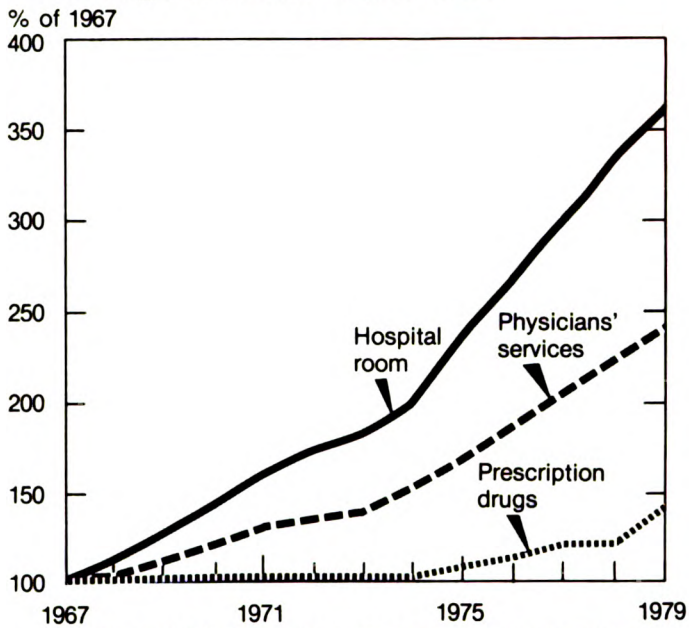
In 1977, total spending for personal health care amounted to $143 billion—about $646 for every man, woman, and child in the United States.

The government paid about 42 percent of the total bill—almost double the figure for 1966. Personal health care spending varied by age, ranging from $253 for persons under age 19 to $1,745 for persons over age 65. Hospital care claimed the largest portion.

---

**Chart 141**

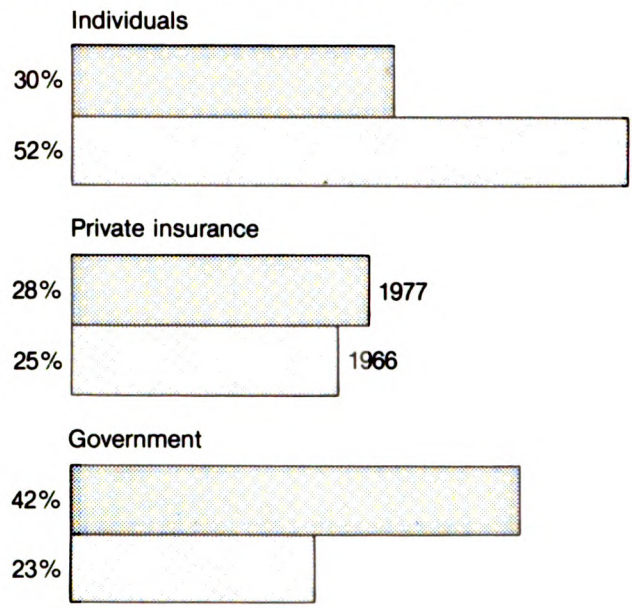
## Change in Medical Care Prices




Annual averages 1967–78; June data for 1979. Source: Bureau of Labor Statistics.

**Chart 142**

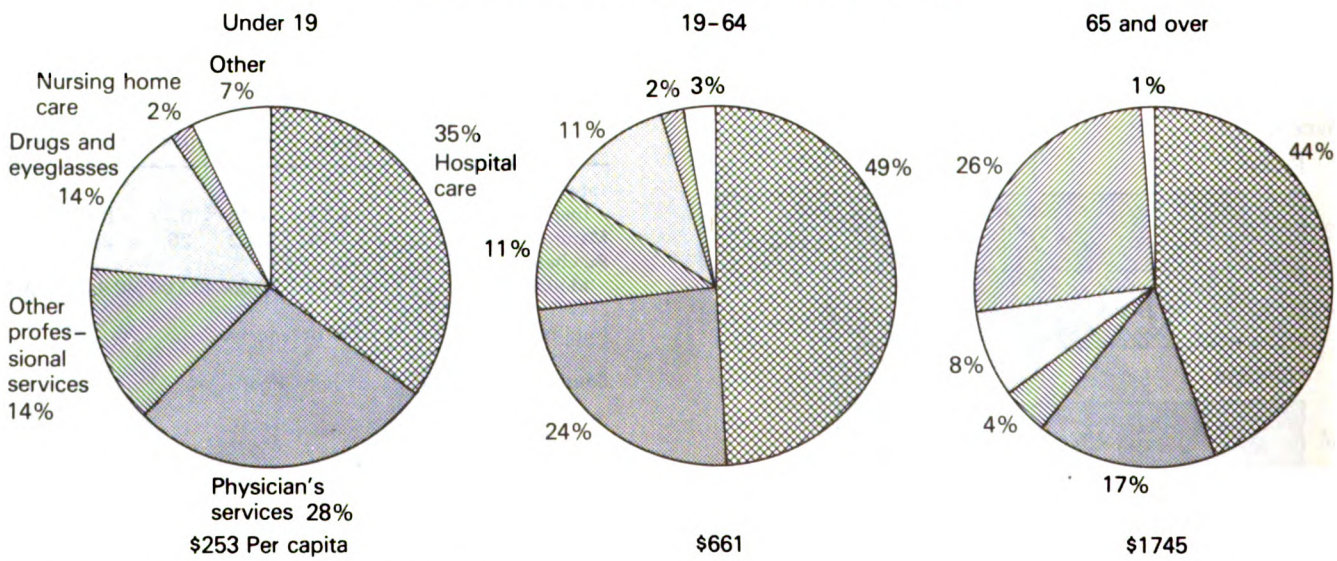
## Personal Health Care Spending




Government includes 2% "other" spending.
Source: Social Security Administration.

**Chart 143**

## Personal Health Care Spending by Age




1977 fiscal year, preliminary data. Source: Social Security Administration.

# ELDERLY

In 1978, there were over 22 million persons aged 65 years and over—the majority of them were women—living in the United States. About half of all elderly women live alone, while most older men—75 percent— live with their wives.

In 1977, the income of elderly households averaged almost 60 percent lower than all households, with the elderly one-person household averaging the least.

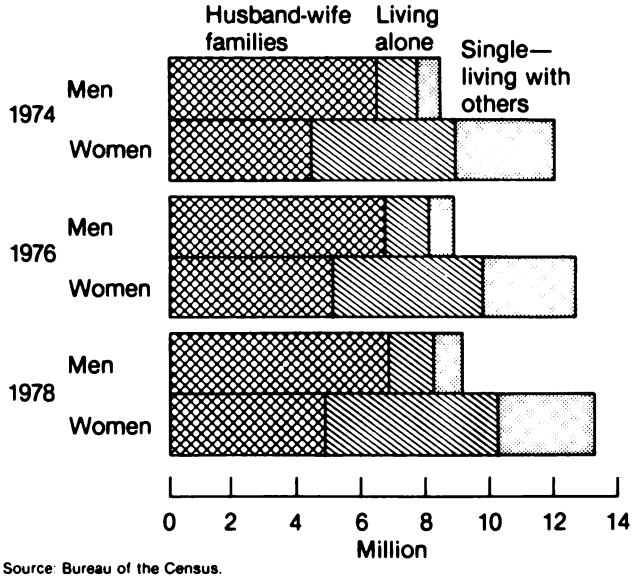
Income of elderly households increased only 6 percent between 1975 and 1977, compared with 12 percent for all households.

Retired families, most of whom are elderly, spend a larger portion of their income on housing, food, and medical care, compared with employed families.

---

Chart 144

## Living Arrangements of Persons 65 Years and Over




Source: Bureau of the Census.

**Average Income**

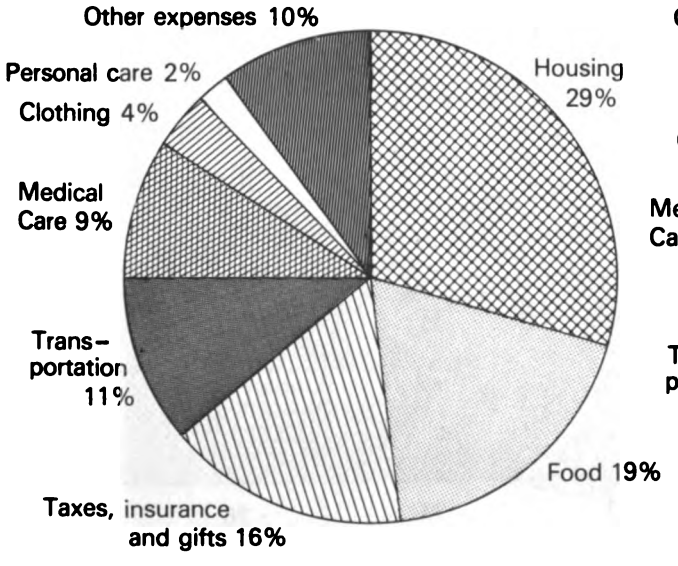
| | 1975 | 1977 |
|---|---|---|
| | *Dollars* | |
| All households | 13,779 | 16,100 |
| One-person | 6,668 | 8,206 |
| Households with head 65 years and over | 8,063 | 9,309 |
| One-person | 4,530 | 5,342 |

Source: Bureau of Census.

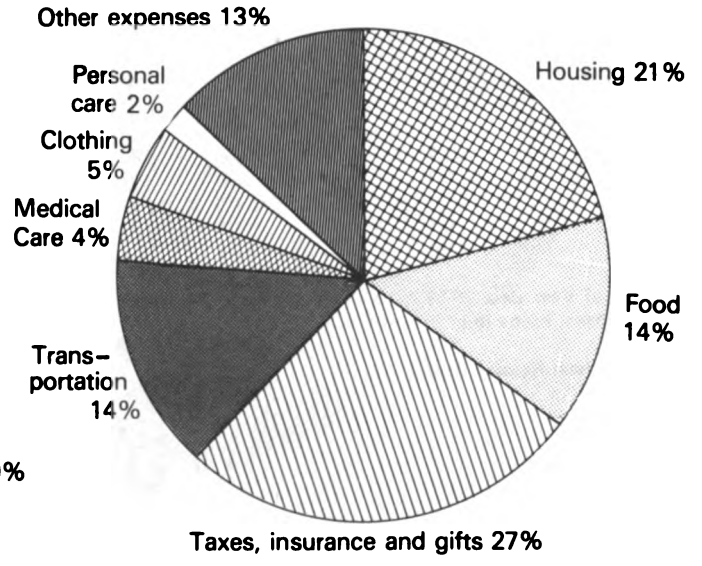
Chart 145

## Spending for Goods and Services

**By retired families**




**By employed families**




Source: Bureau of Labor Statistics.

# CONSUMER CREDIT

At the end of May 1979, total consumer credit outstanding reached $288 billion—an increase of more than 18 percent from a year earlier. This amounted to about $1,306 for every man, woman, and child in the United States.

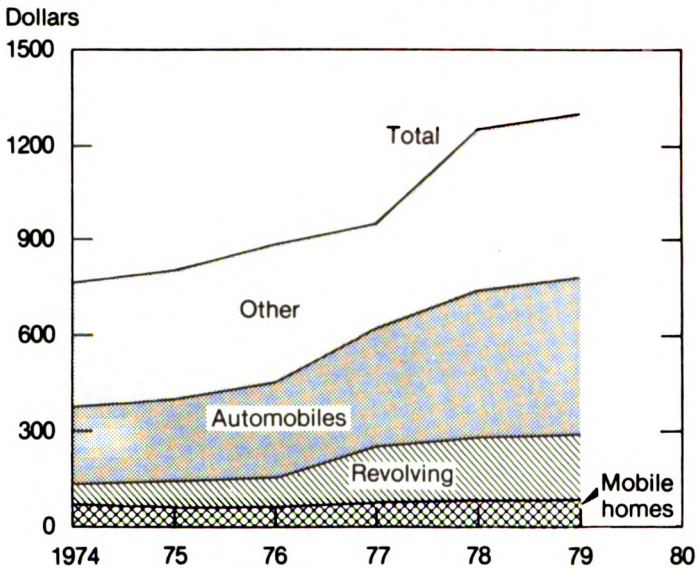
The credit category "other"—including personal loans, home improvement, other consumer goods, and some auto dealers— accounted for most of the debt.

The debt-income ratio—the ratio between debt outstanding and personal income after taxes—has fluctuated between 15 and 18 percent during the 1970's. High points in 1972-74 and 1977-78 reflect periods of rapid inflation.

Nonbusiness bankruptcy filings in 1978, the lowest in 8 years, fell for the third year in a row.

Chart 146

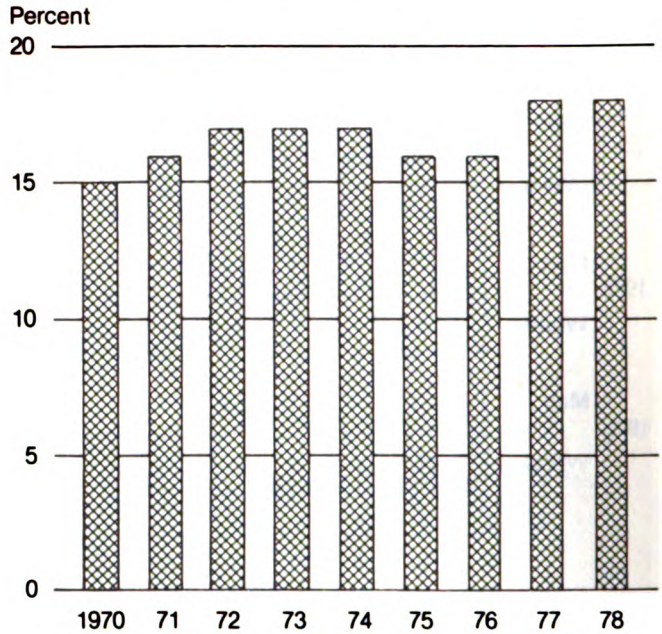
## Consumer Installment Debt per Capita




End of year data 1974-78; May data for 1979.
Source: Federal Reserve Board.

Chart 147

## Debt as Percent of Income




U.S. consumer installment debt outstanding as a percent of U.S. personal income after taxes.
Source: Federal Reserve Board.

**Consumer Installment Debt per Capita[1]**

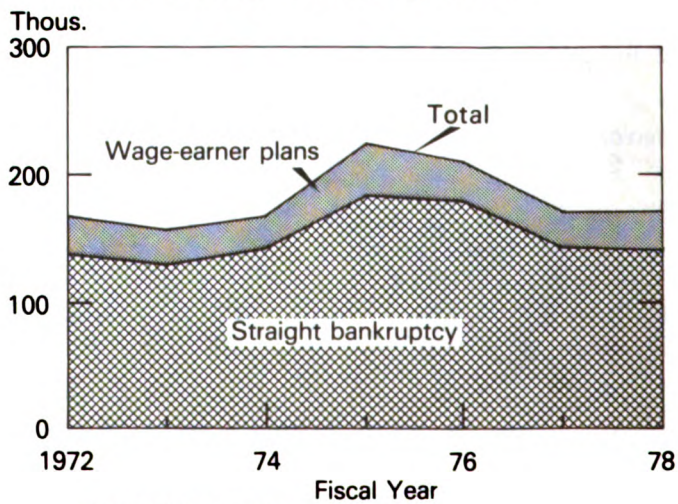
| | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|
| | *Dollars per capita* | | | |
| Total | 898 | 1,060 | 1,256 | 1,306 |
| Automobiles | 313 | 381 | 467 | 496 |
| Revolving | 80 | 180 | 214 | 211 |
| Mobile homes | 67 | 70 | 73 | 75 |
| Other[2] | 438 | 429 | 502 | 524 |

[1] End of year data 1976-78; May data for 1979. [2] Includes personal loans, home improvement, and other consumer goods.

Source: Federal Reserve Board.

Chart 148

## Nonbusiness Bankruptcies




Wage-Earner Plans, Chapter 13: court collected.
Source: Bankruptcy Division, U.S. Courts.

# FOOD AND NUTRITION PROGRAMS



# FOOD ASSISTANCE

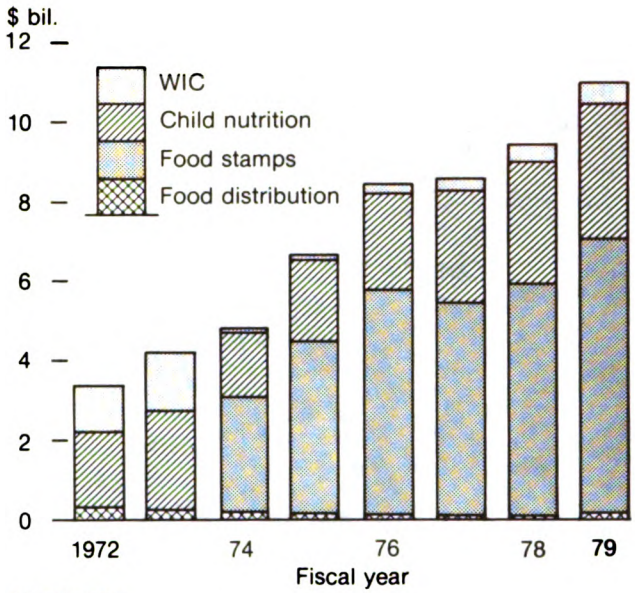
USDA expenditures for food assistance have increased substantially since 1969. In fiscal 1979, the total cost to USDA amounted to about $11 billion—up about $1.6 billion from fiscal 1978.

Participation in the Family Food Assistance Programs is closely tied to the unemployment rate and consumer incomes. As unemployment rose during the early 1970's, program participation increased sharply until 1976. Since then, unemployment and program participation trended downward until fiscal 1979 when Congress eliminated the purchase requirement for food stamps.

---

**Chart 149**

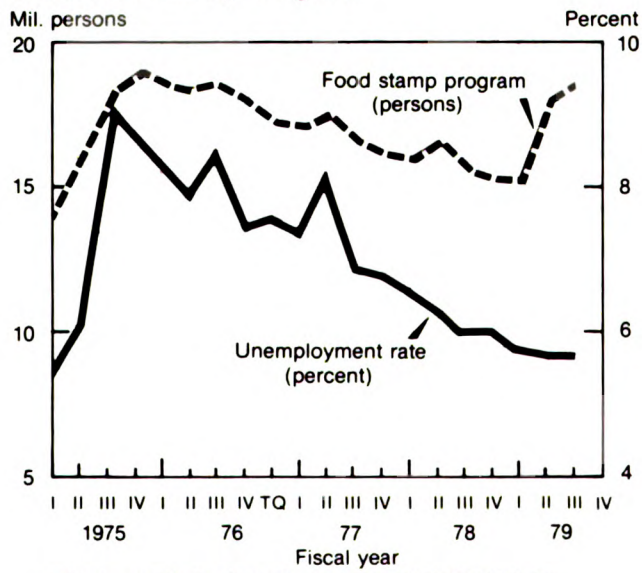
## USDA Funding for Food Assistance




1979 preliminary.

**Chart 150**

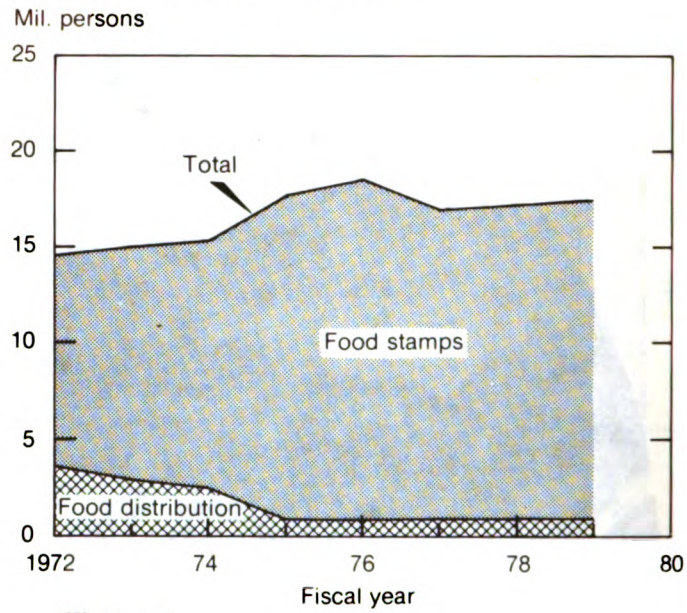
## Unemployment Rate and Participation In the Food Stamp Program




1979 preliminary. TQ = transition quarter (July-Sept.) due to change in fiscal year

**Chart 151**

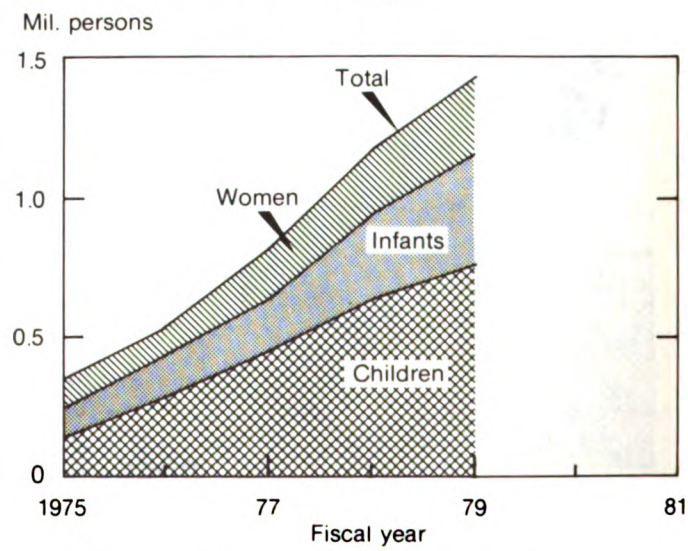
## Participants in the Family Food Assistance Programs




1979 preliminary.

**Chart 152**

## Participants in WIC Program




1979 preliminary. WIC is the special supplemental food program for Women, Infants, and Children.

# FOOD STAMPS

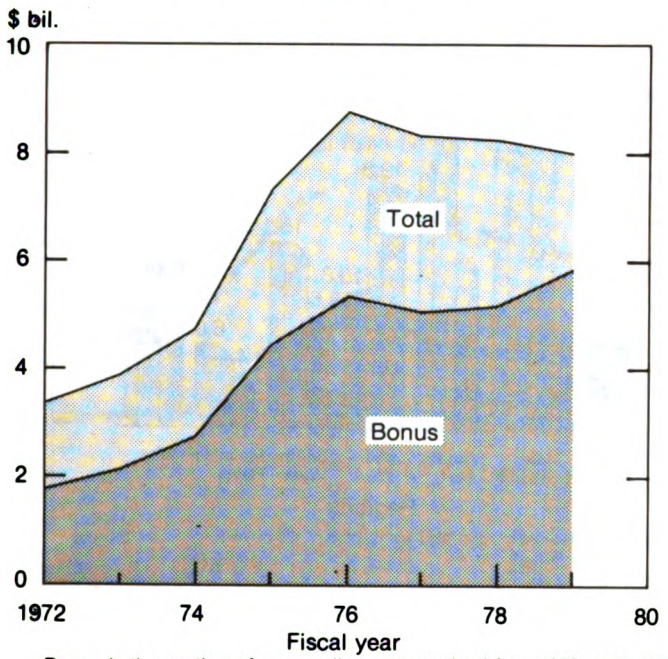
The total value of food stamps issued has increased substantially over the last several years. The increase was due to both greater participation and to periodic adjustments in coupon allotments, which reflected increases in food prices. With the value of coupons amounting to nearly $8.0 billion in fiscal 1979, the cost to USDA was about $5.8 billion. Program costs have leveled off since the 1975 peak.

USDA costs includes Federal costs of administering the program as well as matching State funds, printing, production, and employment registration. About half of the persons receiving food stamps also receive public assistance.

---

Chart 153

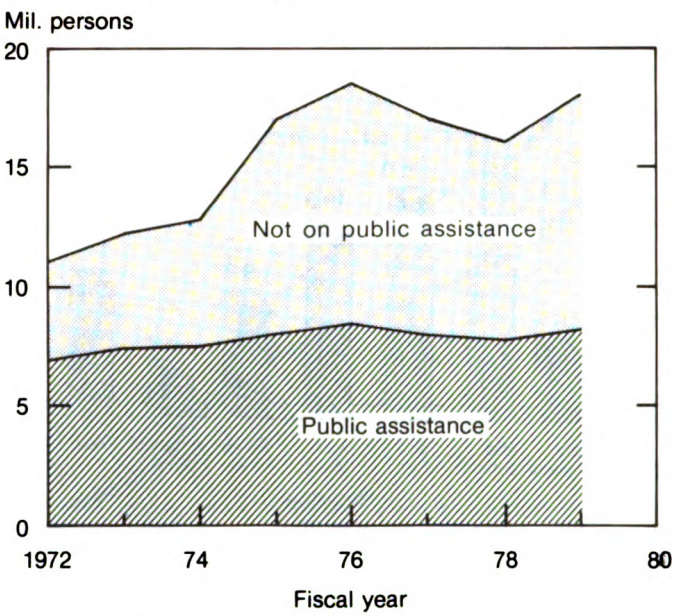
**Value of Food Stamps Issued**




Bonus is the portion of stamp allotment received free. 1979 preliminary.

Chart 154

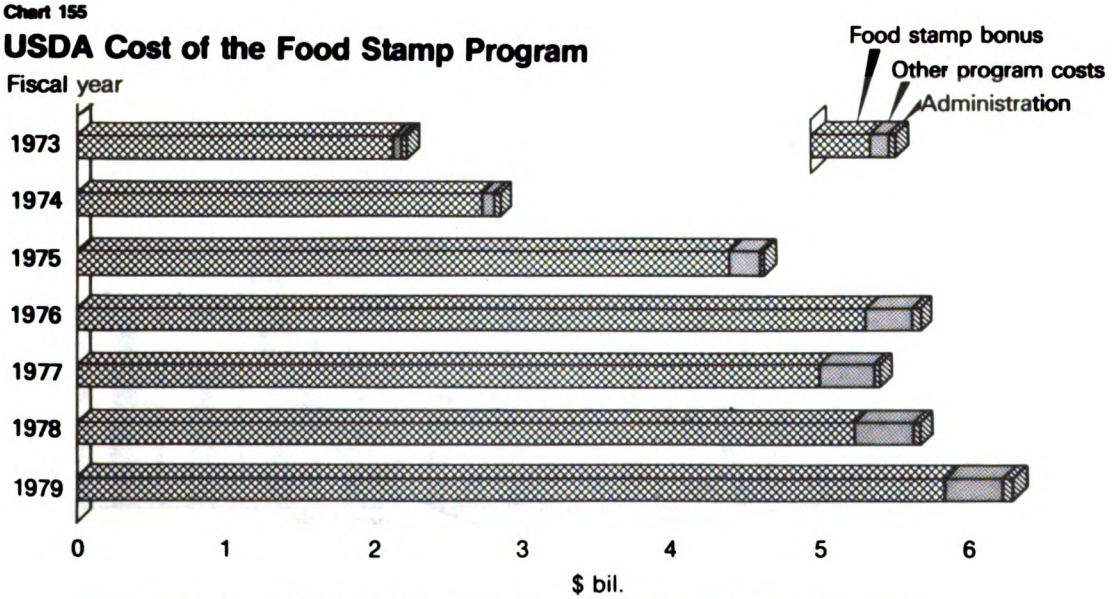
**Number of Participants in the Food Stamp Program**




1979 preliminary.

Chart 155

**USDA Cost of the Food Stamp Program**




1979 preliminary. Other program costs include State matching fund, printing, production, and employment registration.

# FOOD STAMPS

Participation in the Food Stamp Program varies widely among the seven regions that administer the program. The Mid-Atlantic Region, which includes Puerto Rico, has about a third of all participants. The Southeast and Midwest Regions also account for a substantial percentage of total participation.

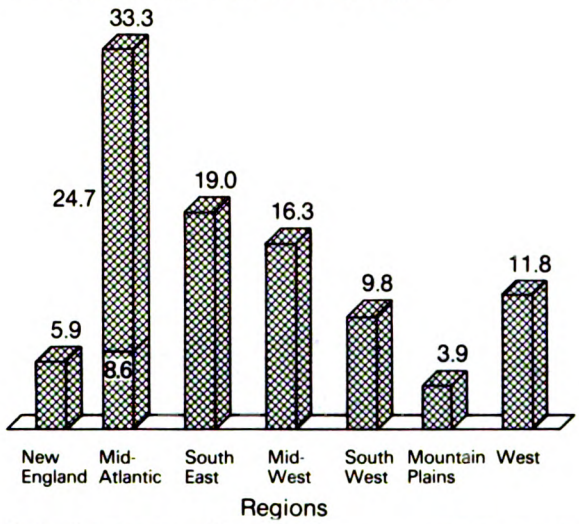
About 70 percent of persons in the Food Stamp Program live in metropolitan areas, primarily in the Mid-Atlantic and Midwest Regions. The Southeast Region accounts for about a third of those living in nonmetropolitan areas.

---

Chart 156

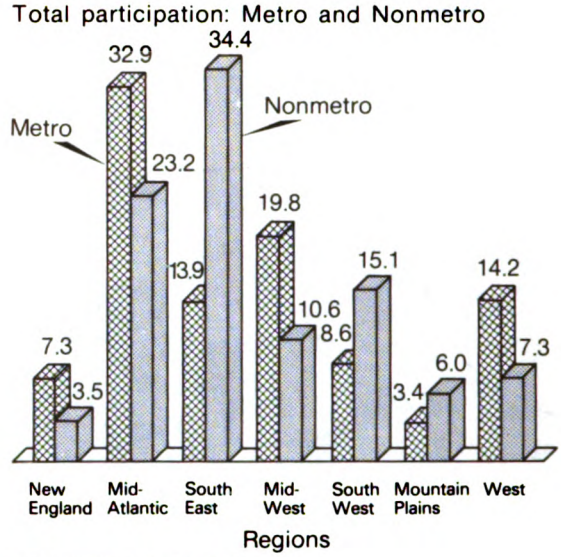
## Regional Distribution of Persons in the Food Stamp Program

Total participation: percent by regions




Regional percentages add up to 100.
Puerto Rico is included in Mid-Atlantic Region

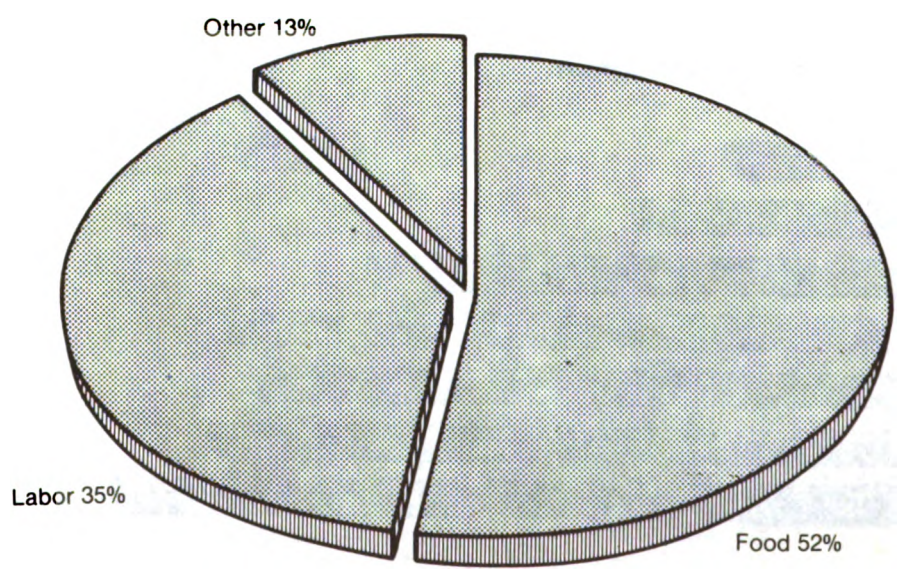
Total participation: Metro and Nonmetro




Metro percentages add up to 100; nonmetro also add to 100.

Chart 157

## Expenditures for School Lunches




Fiscal year 1978 preliminary.

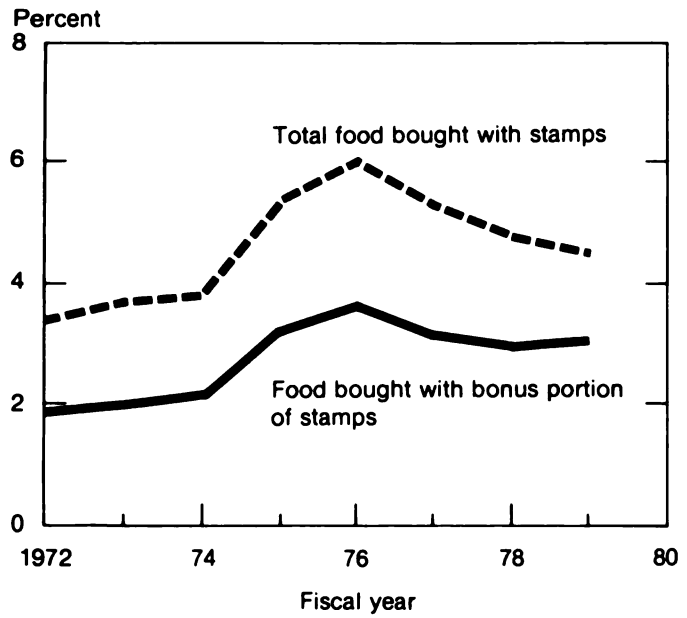
# FOOD STAMPS

Food bought with food stamps in fiscal 1978 amounted to about 4.5 percent of all food spending, down from 6 percent 3 years earlier when participation was a record. The bonus portion of food stamps makes up 3.1 percent of all food spending. This percentage has increased over time with the growth in program participation.

The average amount of bonus a participant receives has increased faster than prices of food at home because the food stamp escalator—which is based on food prices consumers pay for food at home.

Chart 158

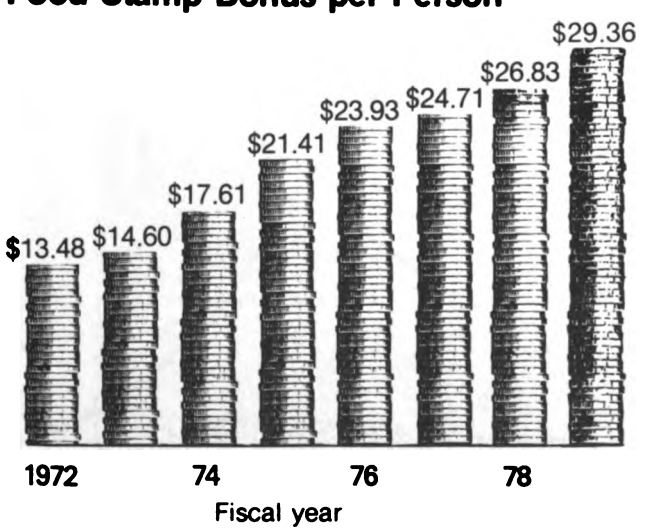
## U.S. Food at Home Bought with Food Stamps




Percent of total expenditures for food at home. 1979 preliminary

Chart 159

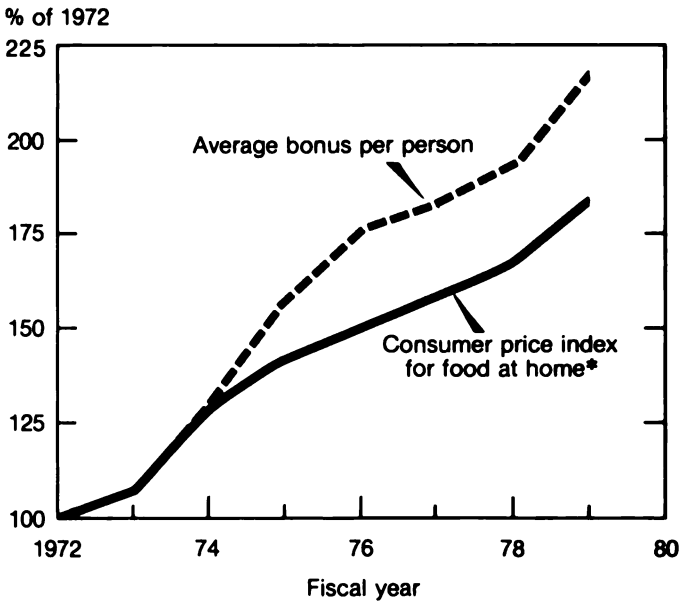
## Average Monthly Food Stamp Bonus per Person




1979 preliminary. Bonus is portion of food stamp allotment paid by USDA

Chart 160

## Changes in Food Prices and Food Stamp Bonus




1979 preliminary. Based on July-June average. *1979 estimated.

**Changes in Food Prices and Food Stamp Bonus[1]**

| | 1973 | 1974 | 1975 |
|---|---|---|---|
| CPI, for food at home (index)[2] | 128.6 | 153.9 | 168.9 |
| As percentage of 1972 | 108.2 | 129.5 | 142.2 |
| Food stamp bonus (dollars) | 14.60 | 17.61 | 21.40 |
| As percentage of 1972 | 108.2 | 130.6 | 158.8 |

| | 1976 | 1977 | 1978[3] |
|---|---|---|---|
| CPI, for food at home (index)[2] | 179.3 | 186.5 | 200.2 |
| As percentage of 1972 | 150.9 | 157.2 | 168.5 |
| Food stamp bonus (dollars) | 23.93 | 24.36 | 26.22 |
| As percentage of 1972 | 177.5 | 183.3 | 193.3 |

[1] Average per person. Fiscal year data. [2] Consumer Price Index (CPI) based on July-June average. [3] Preliminary.

# SCHOOL PROGRAMS

Over the past several years, USDA has contributed an increasing proportion of the cost of school food programs. USDA's share has gone up faster than food prices. A part of the higher contributions reflects the rising number of free or reduced-price lunches, for which Federal reimbursements are greater than those for paid meals.

Participation in the National School Lunch Program has increased some in recent years. Much of this was due to bringing residential child care institutions under the program and to adding the requirement that all participating schools offer reduced-price lunches. Moreover, many schools offer a wider variety of food items and make lunches more appealing.

---

**Chart 161**

## Who Pays for the School Lunches?

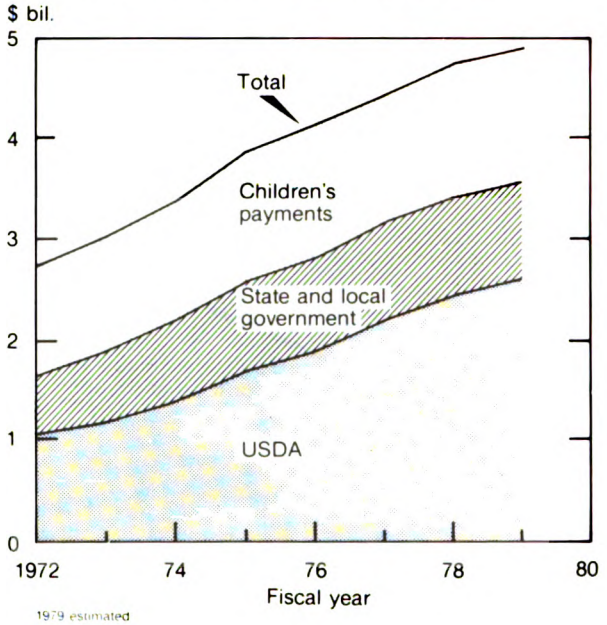



**Chart 162**

## Number of Children in National School Lunch Program

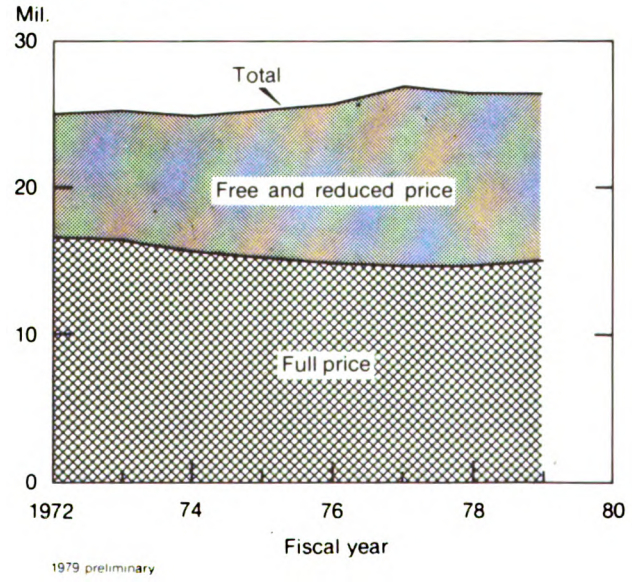
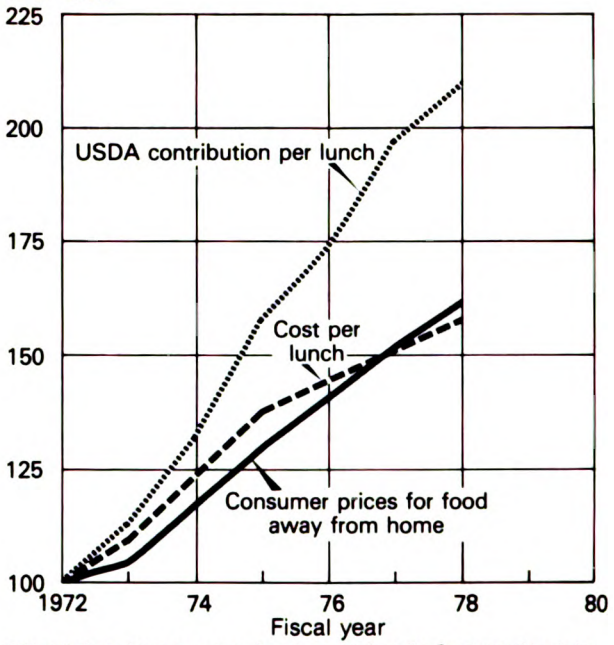



**Chart 163**

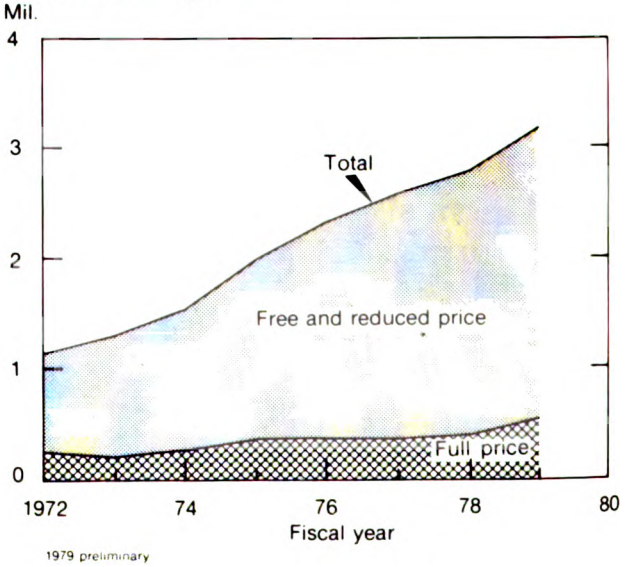
## Changes in Food Costs and USDA Contributions to a School Lunch




1978 preliminary. Food costs away from home are from the Consumer Price Index.

**Chart 164**

## Number of Children in the School Breakfast Program



# OTHER PROGRAMS

USDA contributed about $3.2 billion in cash and food to the child nutrition programs in fiscal 1979, including the School Lunch Program, School Breakfast Program, Summer Feeding Program, Special Milk Program and Child Care Feeding Program.

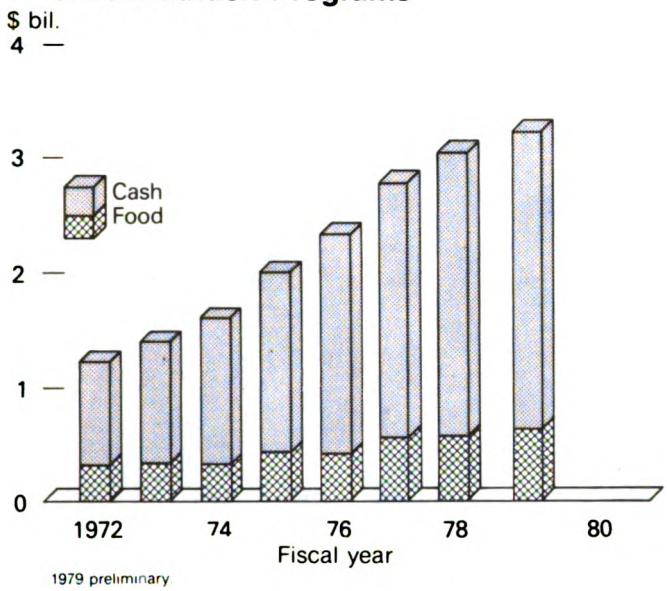
Since 1972 costs have risen significantly, as most of the programs gained more participants. The schools also received higher Federal reimbursements due to escalators based on prices of food away from home.

The Nutrition Program for the Elderly, begun in 1975, has expanded rapidly. Expenditures for this program have climbed from $1.8 billion in fiscal 1975 to $54 million in 1979.

---

Chart 165

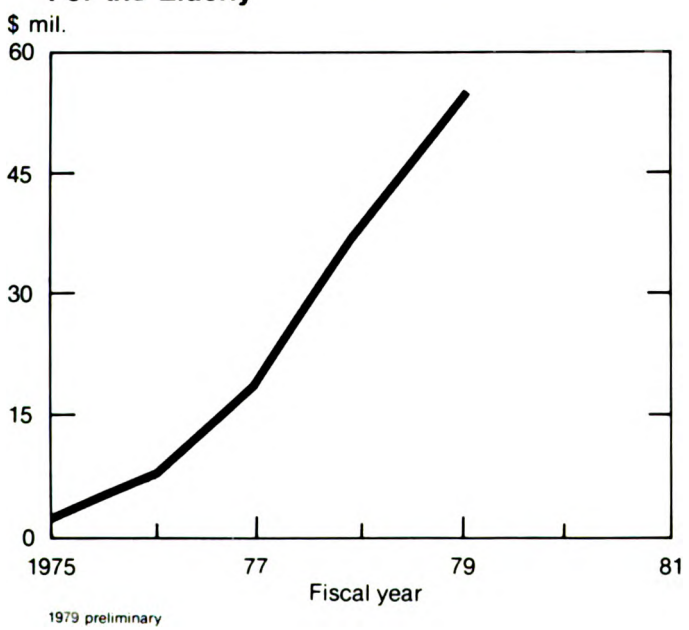
**USDA Contributions to the Child Nutrition Programs**




1979 preliminary.

Chart 166

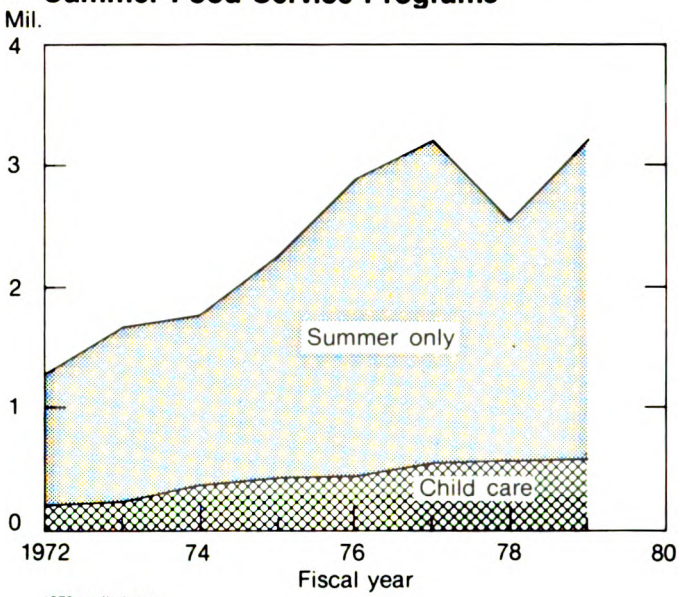
**USDA Cost of the Nutrition Program For the Elderly**




1979 preliminary

Chart 167

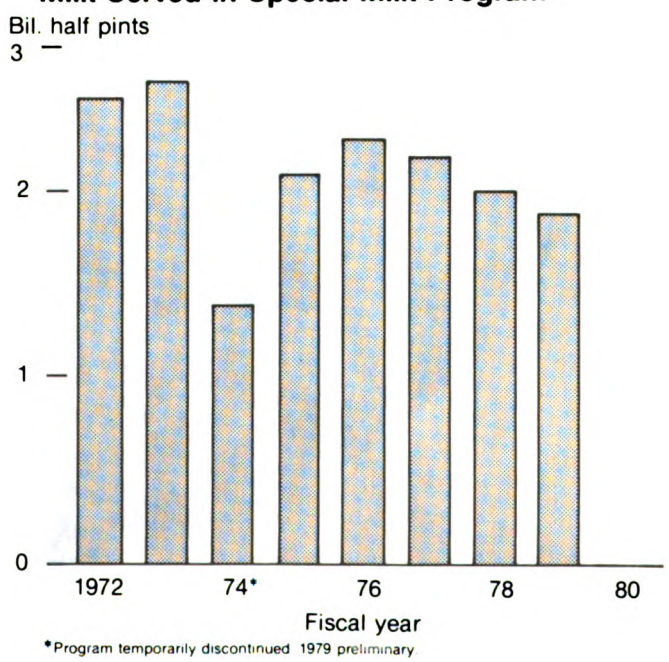
**Number of Children in the Child Care and Summer Food Service Programs**




1979 preliminary.

Chart 168

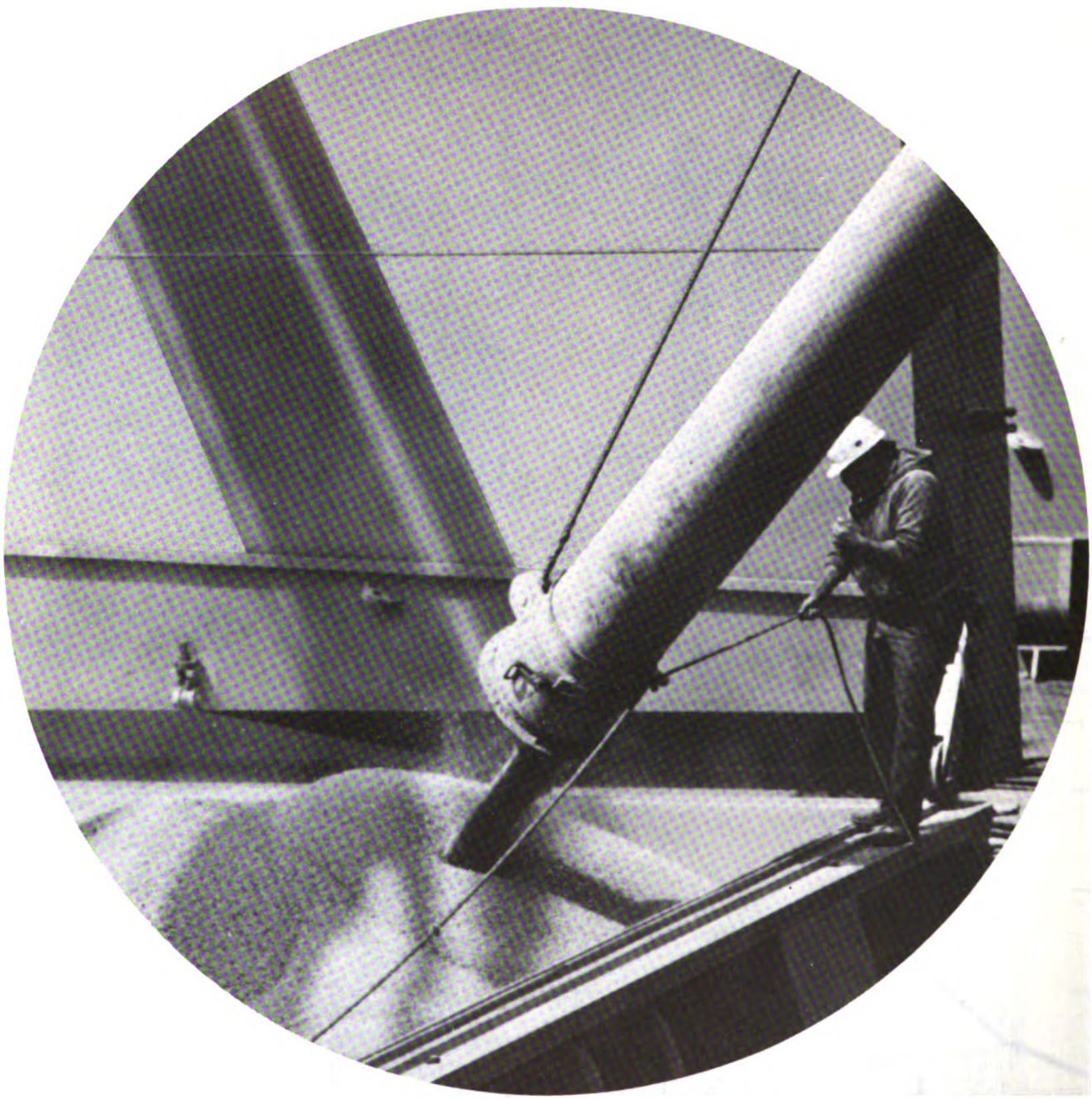
**Milk Served in Special Milk Program**




*Program temporarily discontinued 1979 preliminary

# FOREIGN PRODUCTION AND TRADE





# U.S. TRADE

Agricultural exports earn large amounts of foreign exchange and help reduce U.S. trade deficits. In fiscal 1979, farm product exports will exceed imports by about $16 billion.

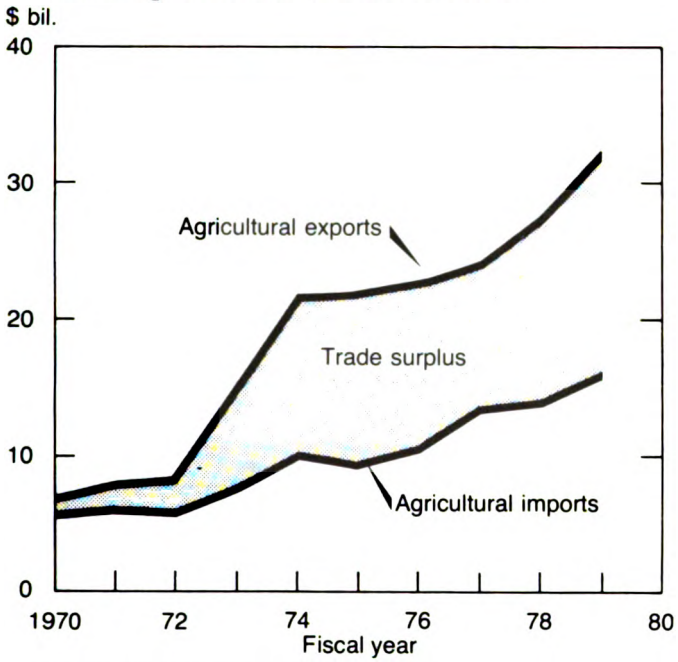
Exports through government programs and commercial channels are sold mostly on commercial terms, either for dollars or convertible foreign currencies. About 95 percent were sold commercially in 1978, with the remaining 5 percent moving under Government-financed programs such as those made available by Public Law 480 and the Agency for International Development.

Sales of agricultural products abroad, aided by Commodity Credit Corporation (CCC) short-term credit. reached a record $1.65 billion.

---

**Chart 169**

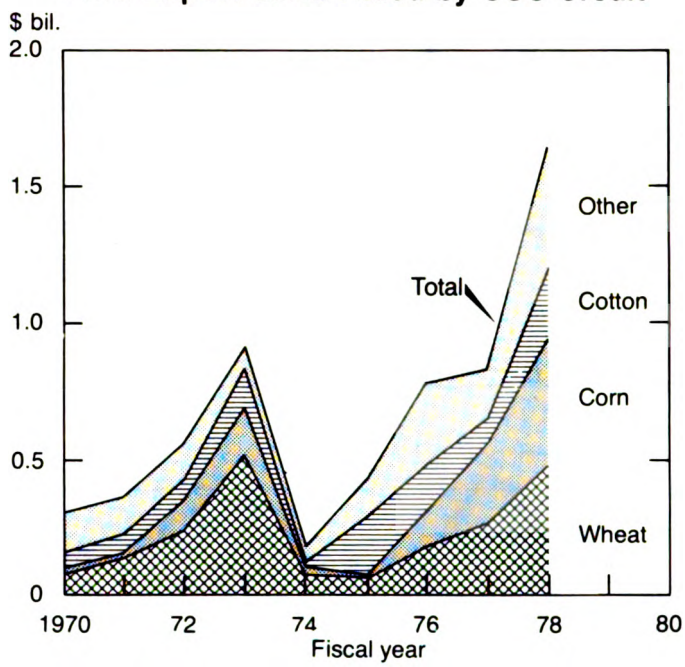
## U.S. Agricultural Trade Balance




October-September years. 1978/79 partially estimated.

**Chart 171**

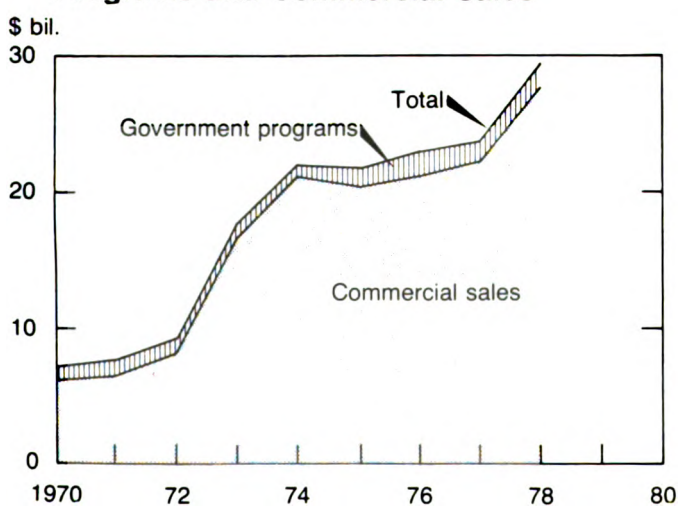
## Farm Export Sales Aided by CCC Credit




CCC. Commodity Credit Corporation. Credit terms up to 36 months

**Chart 170**

## U.S. Agricultural Exports: Government Programs and Commercial Sales




**U.S. Agricultural Exports: Government Programs And Commercial Sales**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Total | 21,884 | 22,996 | 23,636 | 29,407 |
| Commercial sales | 20,456 | 21,555 | 22,143 | 27,836 |
| Government programs | 1,428 | 1,441 | 1,493 | 1,571 |

# U.S. TRADE

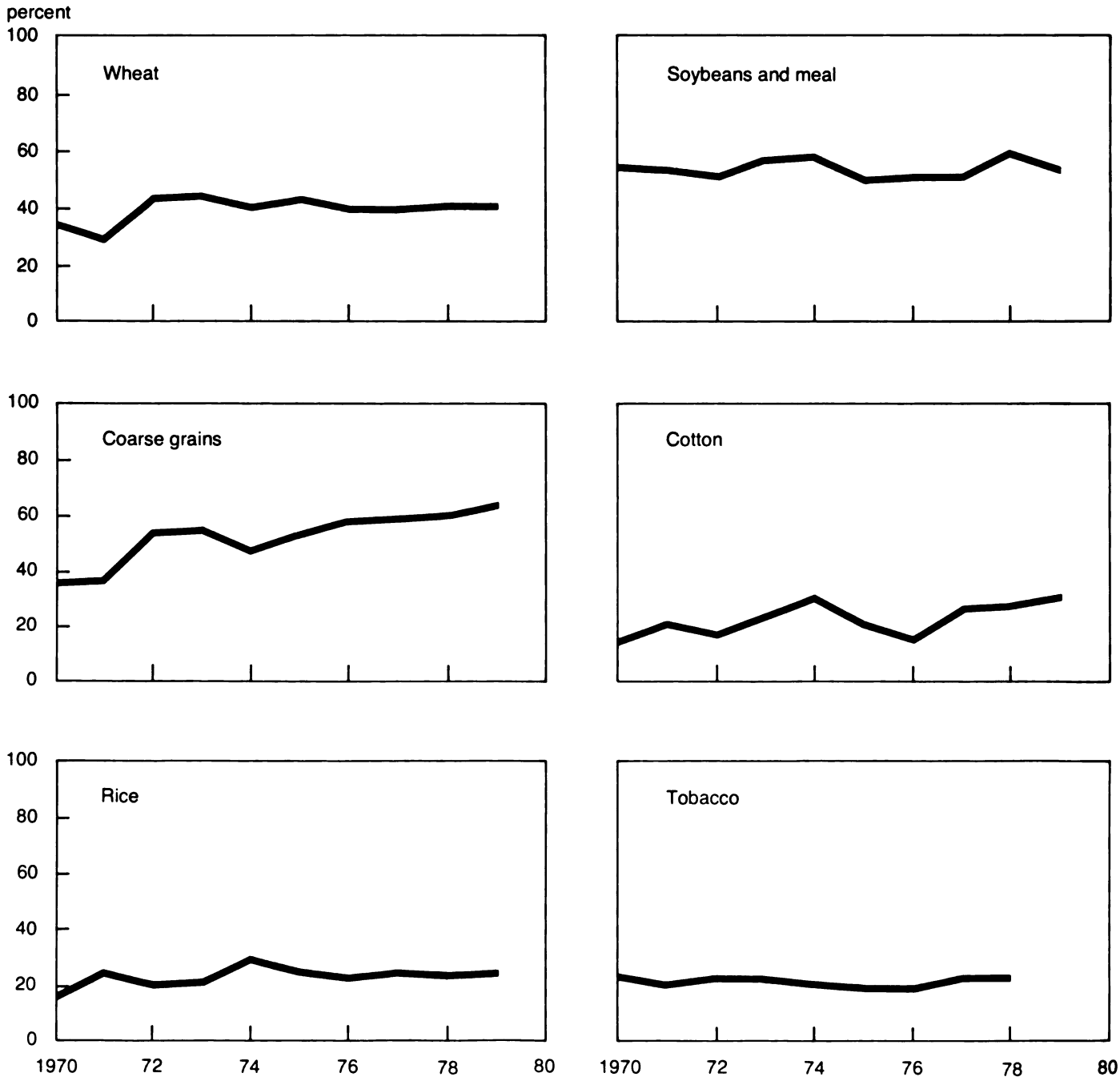
The United States accounts for a substantial part of world trade in agricultural commodities. During fiscal year 1978, U.S. shares of world coarse grain exports exceeded 60 percent; oilseeds, 57 percent; wheat, 42 percent; cotton, 29 percent; and rice, 25 percent.

The United States share of world wheat exports reached 48 percent in 1975/76—a new peak. Coarse grains have grown steadily to about 62 percent. Shares for oilseeds, rise, and cotton have fluctuated.

---

Chart 172

## U.S. Exports as Share of World Trade



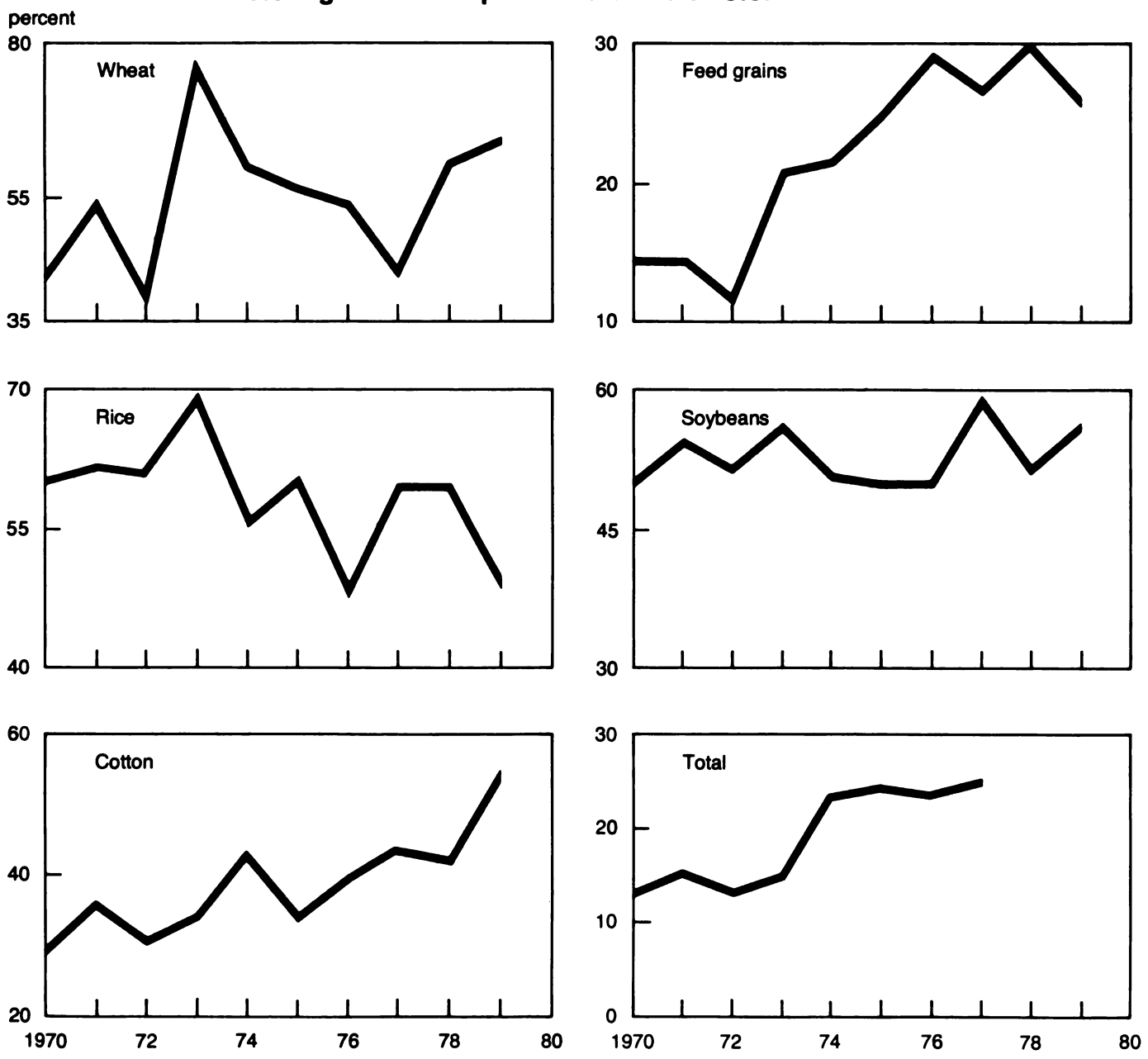
# U.S. TRADE

About one-third of the U.S. crop harvest was exported in fiscal 1979. Crop area for export totaled 110 million acres, mainly acres in wheat, oilseeds and feedgrains. Exports accounted for more than 60 percent of wheat production; 56 percent for soybeans, and products; 54 percent for cotton; almost 50 percent for rise; and 26 percent of feedgrains.

In addition to getting export income from the major crops, U.S. farmers derive income from export markets for tobacco, sunflower, almonds, prunes, citrus, dried beans, and many animals products.

Chart 173

**U.S. Agricultural Exports as a Share of U.S. Production**




Exports as a share of cash receipts from farming.

# U.S. TRADE

Agricultural exports during 1978 continued to increase, both in tonnage and in value. Total volume of principal commodities reached a record 134 million tons, 235 percent of the 1967 base. Higher prices helped raise value to $29.4 billion, or 472 percent of the 1967 base.

Agricultural exports by principal commodity groups—mainly wheat, feedgrains, and rice—account for the major portion of U.S. agricultural exports, followed by oilseeds. Animal products, fruits and vegetables, cotton, and tobacco are also important items.

Wheat and corn export prices recovered in 1978 after declining the previous year.

---

Chart 174

## Value and Volume of U.S. Agricultural Exports

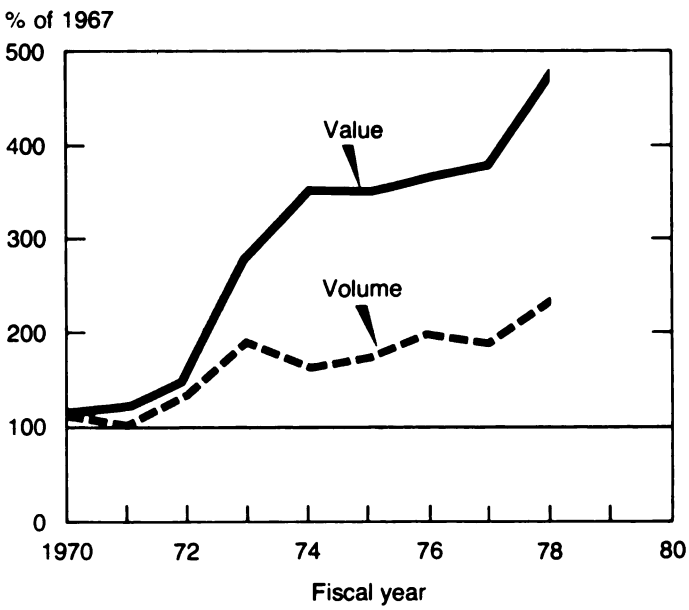



Chart 175

## Export Prices Paid for Major U.S. Farm Crops

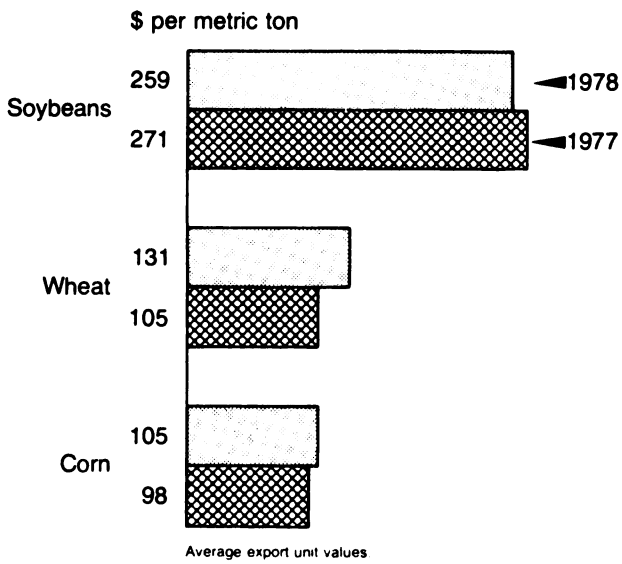
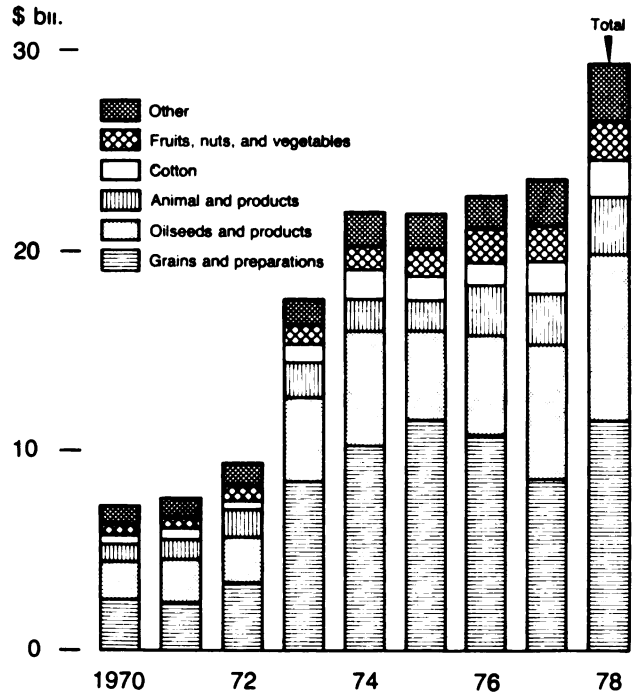



Chart 176

## U.S. Agricultural Exports: Value by Commodity Group




1978 preliminary.

**U.S. Agricultural Exports: Value by Commodity**

| | 1975 | 1976 | 1977 | 1978[1] |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Total | 21,884 | 22,997 | 23,636 | 29,407 |
| Grains and feeds | 11,620 | 10,875 | 8,713 | 11,580 |
| Oilseeds and products | 4,452 | 5,070 | 6,615 | 8,189 |
| Livestock and products | 1,686 | 2,380 | 2,665 | 3,020 |
| Fruits, nuts, and vegetables | 1,372 | 1,642 | 1,697 | 2,042 |
| Cotton | 991 | 1,049 | 1,529 | 1,740 |
| Tobacco | 877 | 940 | 1,094 | 1,358 |
| Other | 866 | 1,041 | 1,323 | 1,478 |

[1] Preliminary.

# U.S. TRADE

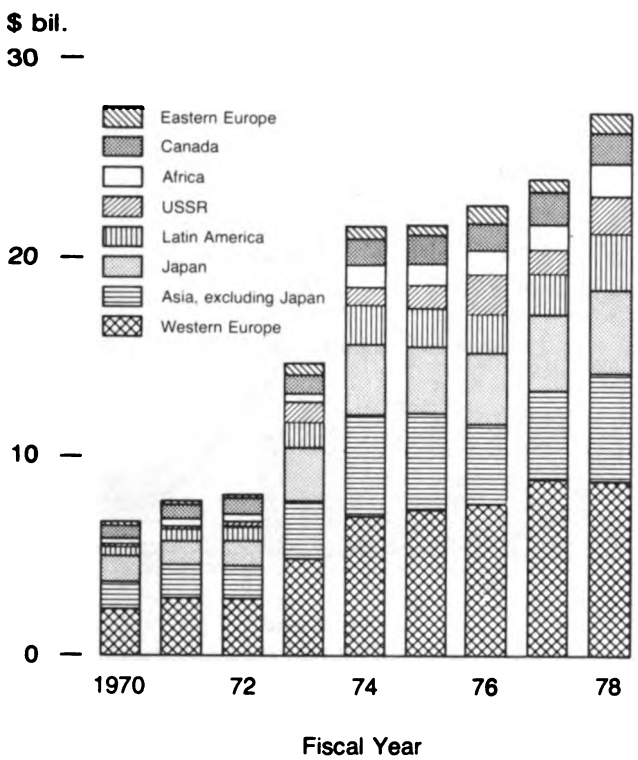
The leading importers of U.S. farm products are Asia and Western Europe. Shipments to Japan, Korea, Taiwan, and China have grown faster than those to major Western European markets.

Exports of U.S. farm products to developed countries rose less rapidly in 1978 than shipments to less developed and Centrally Planned areas. The share of U.S. farm exports taken by developed countries dropped to 55 percent, from over 60 percent the previous year, while the share taken by less developed and Centrally Planned areas increased substantially.

---

**Chart 177**

## Where We Ship Our Agricultural Exports




Adjusted for transshipments.

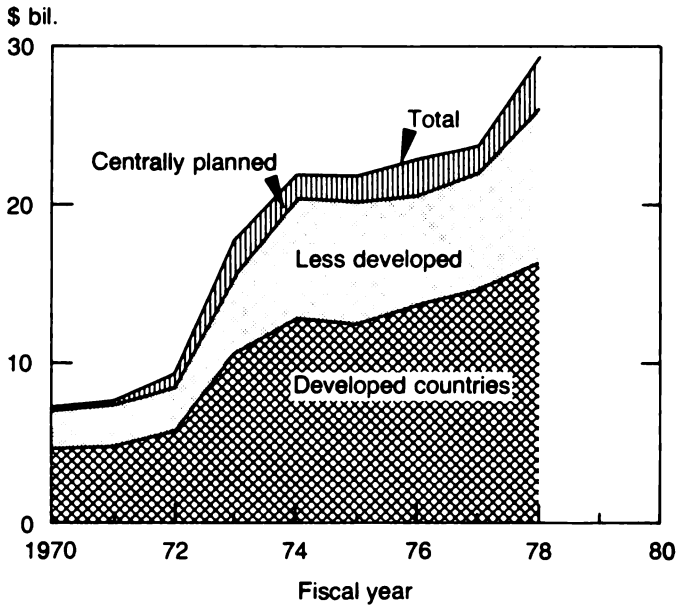
**U.S. Agricultural Exports: Value by Destination**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | | *Million dollars* | | |
| Total | 21,884 | 22,997 | 23,636 | 29,407 |
| Western Europe | 7,155 | 7,882 | 8,358 | 9,117 |
| Asia (excluding Japan) | 4,540 | 4,019 | 4,185 | 5,860 |
| Japan | 3,082 | 3,563 | 3,857 | 4,435 |
| Latin America | 2,280 | 1,942 | 2,217 | 3,158 |
| USSR | 1,133 | 1,487 | 1,036 | 1,687 |
| Africa | 1,157 | 1,179 | 1,362 | 1,598 |
| Canada | 1,305 | 1,485 | 1,534 | 1,635 |
| Eastern Europe | 619 | 927 | 603 | 1,087 |

Note: Not adjusted for transshipments.

**Chart 178**

## U.S. Agricultural Exports to Major Areas




Not adjusted for transshipments.

**U.S. Agricultural Exports to Major Areas**

| | 1976 | 1977 | 1978 |
|---|---|---|---|
| | | *Million dollars* | |
| Total | 22,997 | 23,636 | 29,407 |
| Centrally planned | 2,414 | 1,704 | 3,347 |
| Less developed | 6,835 | 2,372 | 9,710 |
| Developed | 13,747 | 14,560 | 16,350 |

# U.S. TRADE

Japan continues to hold first place among foreign markets for U.S. farm products. In 1978, Japan took more than 44 percent of U.S. agricultural exports to Asia. Other Asian countries have become increasingly important destinations, notably Korea, Taiwan, and Mainland China.

The nine-member European Community (EC) is the largest foreign market for U.S. farm products. In fiscal 1979, U.S. agricultural exports to the EC will recover to about $7.4 billion, following a drop to $6.6 billion during fiscal 1978. Oilseeds and products now make up the largest portion of commodity exports, replacing grains.

Chart 179

## U.S. Agricultural Exports to Asia

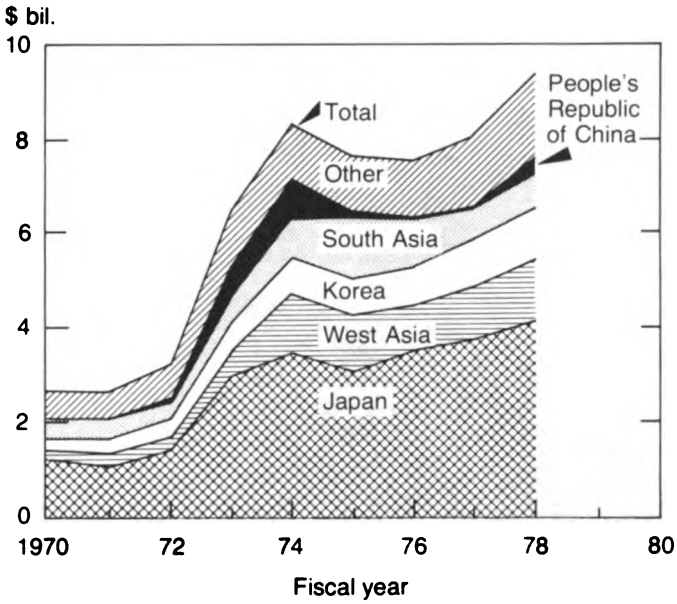
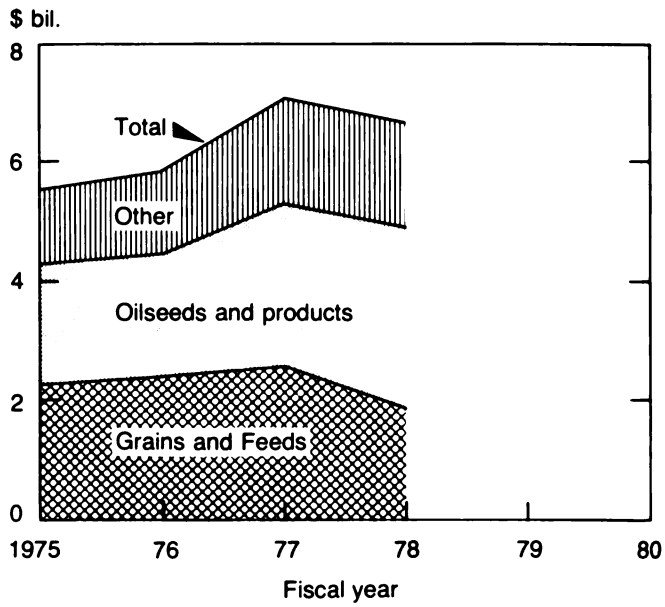



Chart 180

## U.S. Agricultural Exports to the European Community




European Community includes Belgium, Denmark, France, Germany, Italy, Ireland, Luxembourg, Netherlands, and the United Kingdom. The data are not adjusted for transshipments.

**U.S. Agricultural Exports to Asia**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Asia | 7,622 | 7,582 | 8,042 | 10,295 |
| Japan | 3,082 | 3,563 | 3,857 | 4,435 |
| Korea | 830 | 830 | 919 | 1,148 |
| South Asia | 1,293 | 1,040 | 551 | 715 |
| West Asia | 1,160 | 883 | 1,073 | 1,440 |
| People's Republic of China | 80 | (1) | 64 | 573 |
| Other | 1,177 | 1,266 | 1,578 | 1,984 |

[1] Less than $500,000.

**U.S. Agricultural Exports to the European Community[1]**

| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Total | 5,535 | 5,854 | 7,093 | 6,653 |
| Grains and feeds | 2,128 | 2,195 | 2,198 | 1,502 |
| Feeds and fodder | 141 | 210 | 402 | 351 |
| Oilseeds and products | 2,032 | 2,070 | 2,712 | 3,048 |
| Animal products | 347 | 569 | 665 | 624 |
| Fruits and vegetables | 213 | 279 | 437 | 413 |
| Tobacco | 372 | 374 | 420 | 454 |
| Other | 302 | 157 | 259 | 261 |

[1] European Community: Belgium, Denmark, France, Germany, Italy, Ireland, Luxembourg, Netherlands, and the United Kingdom. Data for year ending September 30; not adjusted for transshipments. [2] Estimated.

# U.S. TRADE

Larger shipments to Mexico, Brazil, and Venezuela raised farm product exports to Latin America significantly during 1978. Poor crop yields, especially in Brazil and Mexico, led to bigger purchases of U.S. grain and oilseeds.

Farm product exports to the 13 OPEC member countries continued to climb during fiscal 1978, reaching a record $2.1 billion.

Grain and products currently account for a large part of U.S. agricultural exports to these countries, but shipments of vegetable oils, fruits and vegetables, and tobacco are also expanding.

---

**Chart 181**

## U.S. Agricultural Exports to Latin America

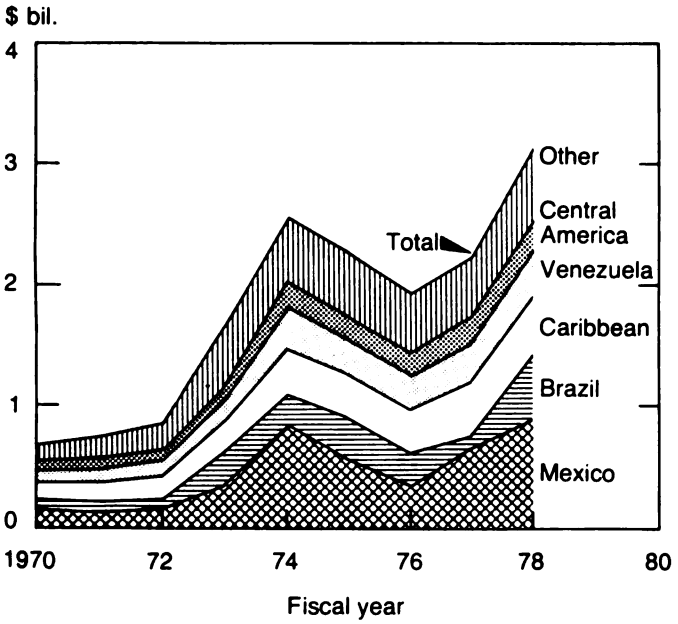
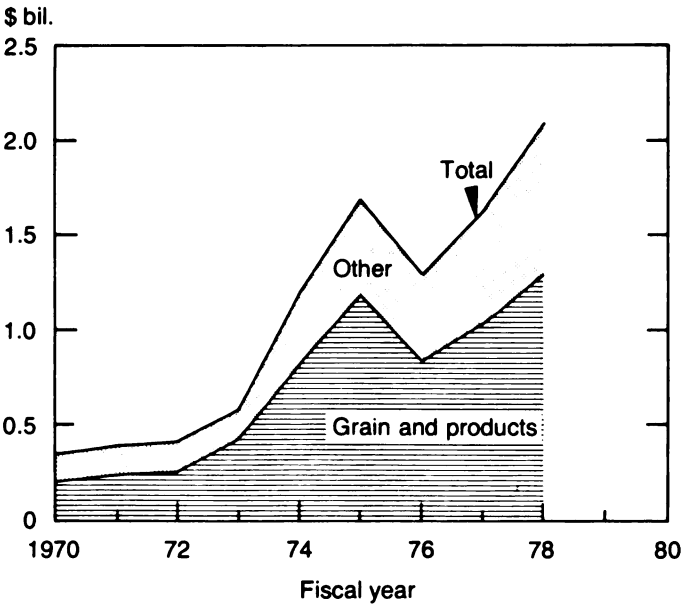



**Chart 182**

## U.S. Agricultural Exports to OPEC Nations




OPEC: Organization of Petroleum Exporting Countries. Years ending September 30.

**U.S. Agricultural Exports to Latin America**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Total | 2,280 | 1,942 | 2,217 | 3,158 |
| Mexico | 586 | 370 | 664 | 903 |
| Brazil | 323 | 255 | 111 | 534 |
| Caribbean | 379 | 397 | 433 | 480 |
| Venezuela | 277 | 274 | 304 | 387 |
| Central America | 194 | 189 | 219 | 237 |
| Other | 521 | 457 | 486 | 617 |

**U.S. Agricultural Exports to OPEC Nations**

| | 1970/71 | 1971/72 | 1972/73 | 1973/74 |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Total | 403.0 | 418.1 | 603.2 | 1,201.7 |
| Grain and products | 243.7 | 263.3 | 432.7 | 825.1 |
| | 1974/75 | 1975/76 | 1976/77 | 1977/78 |
| | *Million dollars* | | | |
| Total | 1,691.9 | 1,286.2 | 1,634.0 | 2,099.0 |
| Grain and products | 1,197.5 | 841.4 | 1,034.0 | 1,303.0 |

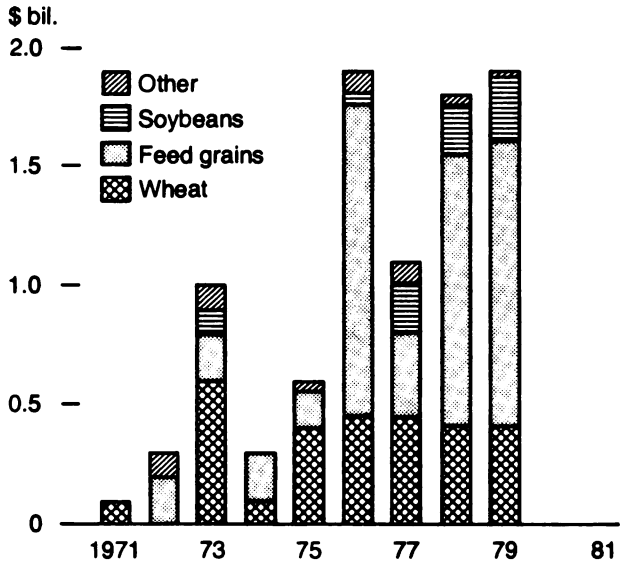
# U.S. TRADE

The value of shipments of farm products to the U.S.S.R. rebounded to $1.9 billion in fiscal 1978, after a sharp decrease during 1977. Trade is expected to increase further in 1979 to a value of about $2.3 billion. Poor crop yields in the U.S.S.R. will make livestock feeding more dependent on imported ingredients.

Sales of U.S. farm products to China rose substantially in 1978 and should hit approximately $900 million during 1979. Cotton was the leading commodity exported last year, but grains will replace cotton as the No. 1 export in 1979.

Chart 183

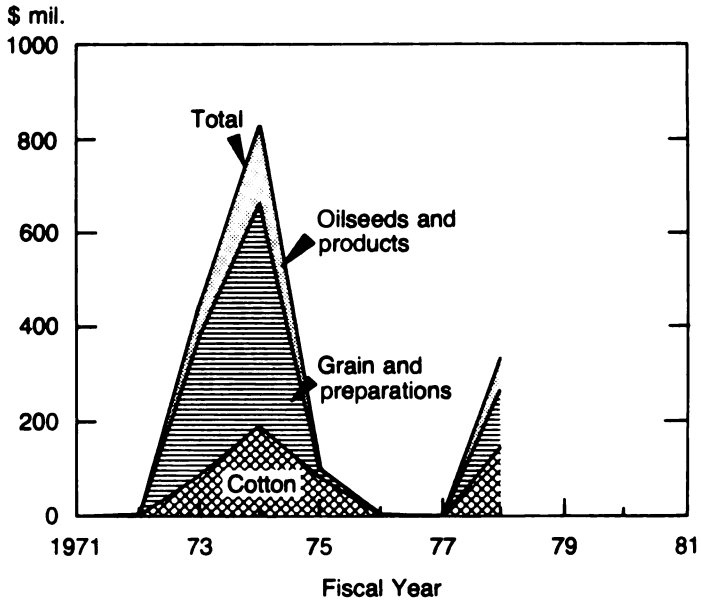
## U.S. Agricultural Exports to the Soviet Union




Year ending September 30. 1978-79 partially estimated.

Chart 184

## U.S. Agricultural Exports To Mainland China




**U.S. Agricultural Exports to the Soviet Union[1]**

| | 1976 | 1977 | 1978 | 1979[2] |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Total | 1,853 | 1,063 | 1,797 | 2,255 |
| Wheat | 446 | 446 | 413 | 500 |
| Feed grains | 1,312 | 355 | 1,138 | 1,320 |
| Soybeans | 60 | 221 | 221 | 365 |
| Other | 35 | 41 | 25 | 70 |

[1] October-September data; not adjusted for transshipments.
[2] Estimated.

**U.S. Agricultural Exports to China**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Thousand dollars* | | | |
| Total | 79,689 | 44 | 63,982 | 573,297 |
| Grains and products | 0 | 0 | 0 | 361,900 |
| Cotton | 79,658 | 0 | 17,519 | 157,305 |
| Oilseeds and products | 16 | 0 | 42,683 | 41,418 |
| Other | 15 | 44 | 3,780 | 12,674 |

# U.S. TRADE

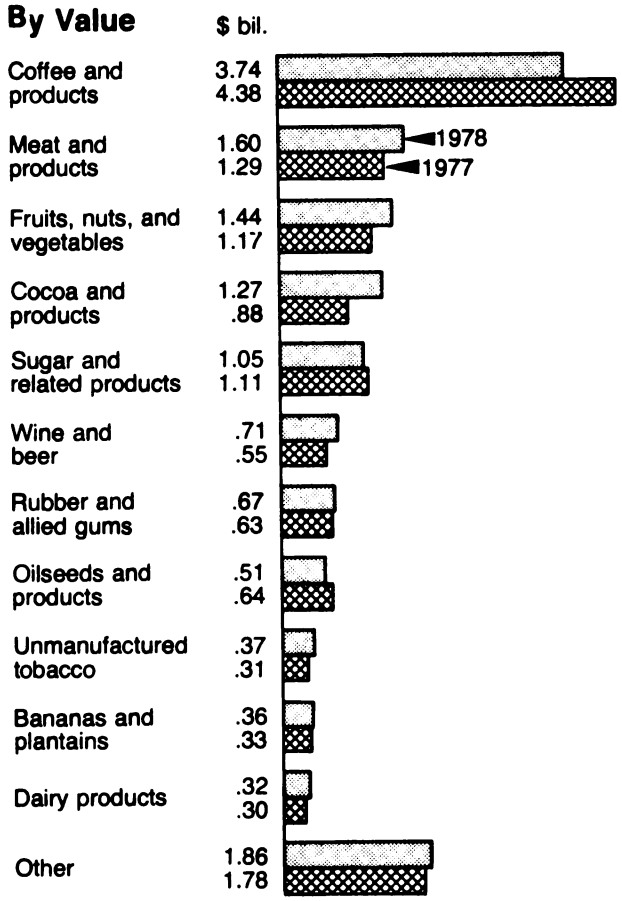
Lower coffee prices in 1978 caused a downturn in import value, but coffee remains the largest agricultural import commodity by a wide margin.

Meat imports—especially beef—increased rapidly due to declining U.S. production. Fruits vegetables, and tree nuts make up the third largest import group.

A large part of U.S. agricultural imports come from Latin American countries, mainly Brazil, Mexico, and Colombia. Regionally, Asian countries provided over $2.4 billion worth, followed closely by Western Europe.

Chart 185

## Leading U.S. Agricultural Imports By Value



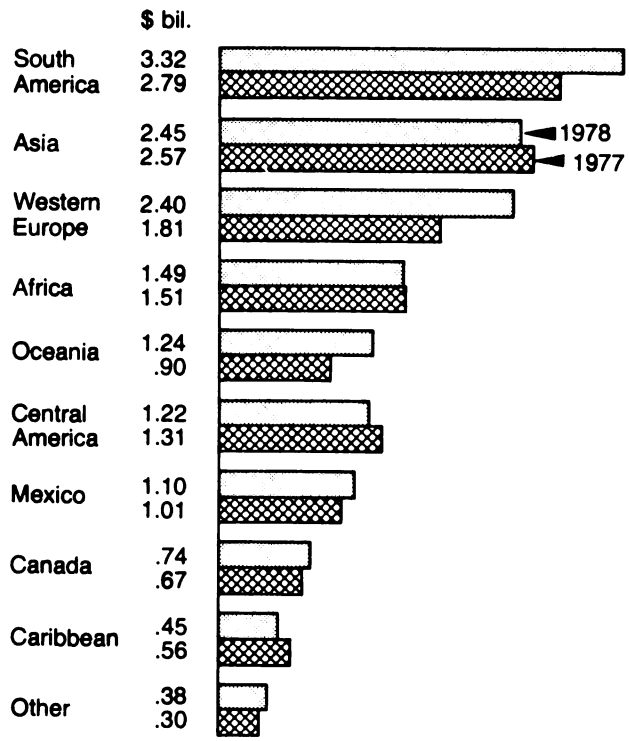

Fiscal years. 1978 partially estimated.

**U.S. Agricultural Imports: Value by Commodity**

| | 1977 | 1978 |
|---|---|---|
| | *Million dollars* | |
| Total | 13,438 | 14,804 |
| Coffee and products | 4,245 | 4,035 |
| Livestock and products | 2,280 | 3,071 |
| Fruits, nuts, and vegetables | 1,245 | 1,527 |
| Cocoa and products | 968 | 1,376 |
| Sugar and related products | 1,206 | 903 |
| Rubber and allied gums | 650 | 685 |
| Wine and beer | 537 | 817 |
| Oilseeds and products | 601 | 533 |
| Tobacco, unmanufactured | 327 | 378 |
| Bananas and plantains | 321 | 357 |
| Dairy products | 297 | 357 |
| Other | 761 | 765 |

Chart 186

## Where We Get Our Agricultural Imports




Fiscal Years.

**U.S. Agricultural Imports: Value by Origin**

| | 1977 | 1978 |
|---|---|---|
| | *Million dollars* | |
| Total | 13,438 | 14,804 |
| South America | 2,788 | 3,320 |
| Asia | 2,572 | 2,446 |
| Western Europe | 1,813 | 2,403 |
| Africa | 1,510 | 1,499 |
| Oceania | 904 | 1,236 |
| Central America | 1,310 | 1,224 |
| Mexico | 1,013 | 1,104 |
| Canada | 672 | 743 |
| Caribbean | 557 | 449 |
| Other | 299 | 380 |

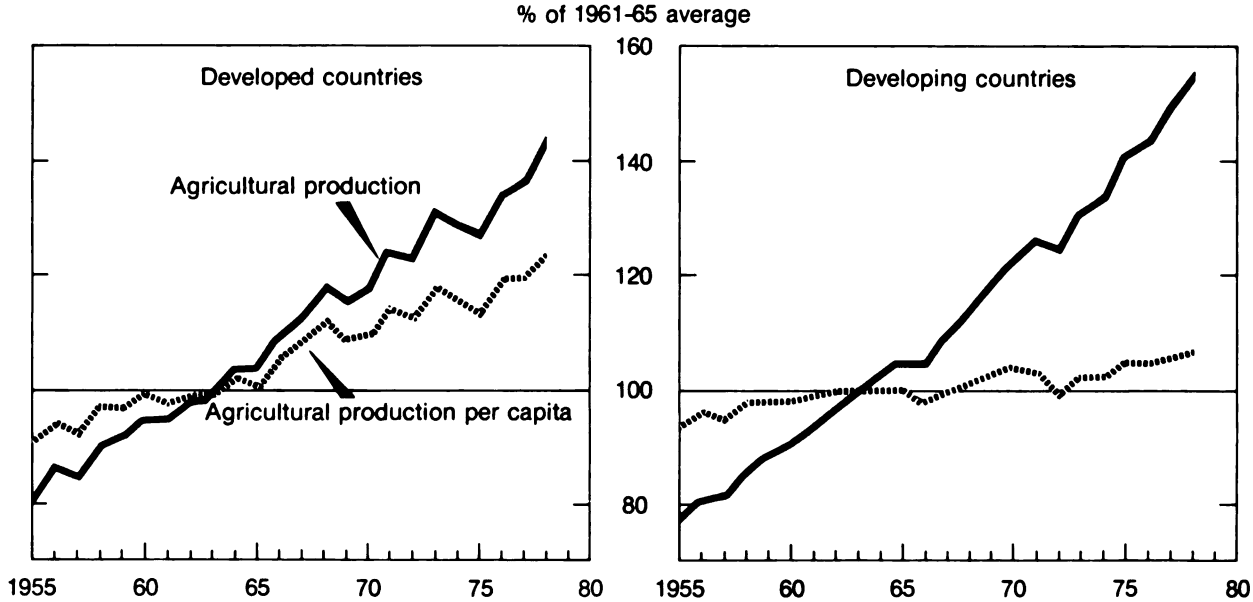
# WORLD SITUATION

Agriculture production in developing countries has been increasing at a combined annual rate of 2.9 percent since 1955, while in the developed countries the growth rate has been only 2.3 percent. On a per capita basis, the growth rate is 1.3 percent for the developed countries and 0.4 percent for developing countries. Population continues to increase faster in the developing countries.

World population of agricultural commodities over the last 25 years has climbed at an annual compound rate of 2.5 percent, but only 0.9 percent on a per capita basis. Production in 1978 was up about 4.2 percent from the previous year. On a per capita basis, however, the increase was in line with the long-term trend.

Chart 187

## Changes in Agricultural Production




Developed countries include United States, Canada, Europe, USSR, Japan, Republic of South Africa, Australia and New Zealand.
Developing countries include South and Central America, Africa (except Republic of South Africa), Asia (except Japan, Communist Asia).

### Changes in Agricultural Production

| | 1960 | 1965 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | *Percentage of 1961-65* | | | | | | |
| Total agricultural Production: | | | | | | | | | | | |
| World[1] | 94 | 104 | 120 | 125 | 124 | 131 | 131 | 132 | 138 | 141 | 147 |
| LDCs[2] | 91 | 105 | 123 | 126 | 125 | 131 | 134 | 141 | 144 | 150 | 155 |
| Developed countries[3] | 95 | 104 | 118 | 124 | 123 | 131 | 129 | 128 | 134 | 137 | 143 |
| United States | 97 | 104 | 110 | 119 | 120 | 122 | 117 | 126 | 129 | 136 | 136 |
| Other[4] | 95 | 104 | 121 | 126 | 124 | 134 | 134 | 128 | 136 | 137 | 145 |
| Agricultural production per capita: | | | | | | | | | | | |
| World | 99 | 101 | 108 | 110 | 108 | 113 | 111 | 111 | 114 | 115 | 118 |
| LDCs | 98 | 100 | 104 | 103 | 100 | 102 | 102 | 105 | 105 | 106 | 107 |
| Developed countries | 99 | 101 | 110 | 114 | 113 | 118 | 116 | 114 | 119 | 120 | 124 |
| United States | 101 | 102 | 101 | 109 | 109 | 110 | 104 | 112 | 114 | 119 | 118 |
| Other | 98 | 101 | 113 | 116 | 114 | 121 | 121 | 114 | 121 | 120 | 126 |

[1] Excludes Communist Asia. [2] Less developed countries include Latin America, Asia, (except Japan and Communist Asia) and Africa (except Republic of South Africa). [3] North America, Europe, USSR, Japan, Republic of South Africa, Australia, and New Zealand. [4] Includes all of footnote 3 except the United States.

# WORLD SITUATION

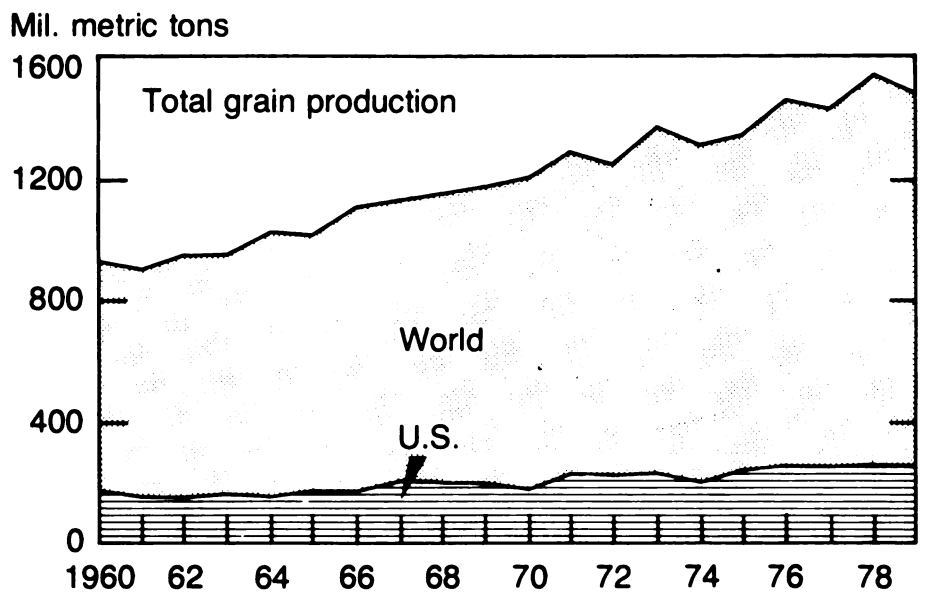
World grain production in 1979/80 is forecast about 4 percent below last year's record. Poorer crop prospects in several key importing regions, especially Eastern Europe and the Soviet Union, are largely responsible for the decline. Offsetting these poorer foreign crops is a 4½ percent expansion for wheat and coarse grain crops in the United States.

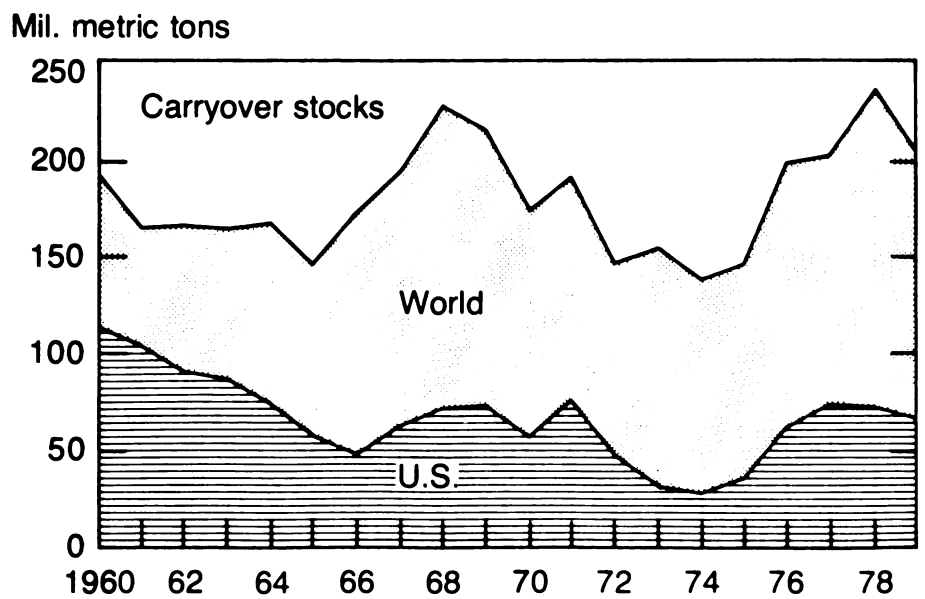
The production decline and a slight increase in utilization indicate a substantial reduction in world carryover stocks for 1979/80. Carryover stocks of grain are expected to decline about 38 million tons, or 17 percent. For 1979/80, stocks as a percent of utilization are seen dropping about 13 percent.

---

Chart 188

## World and U.S. Total Grain Production and Carryover Stocks



# COMMODITY TRENDS



# LIVESTOCK

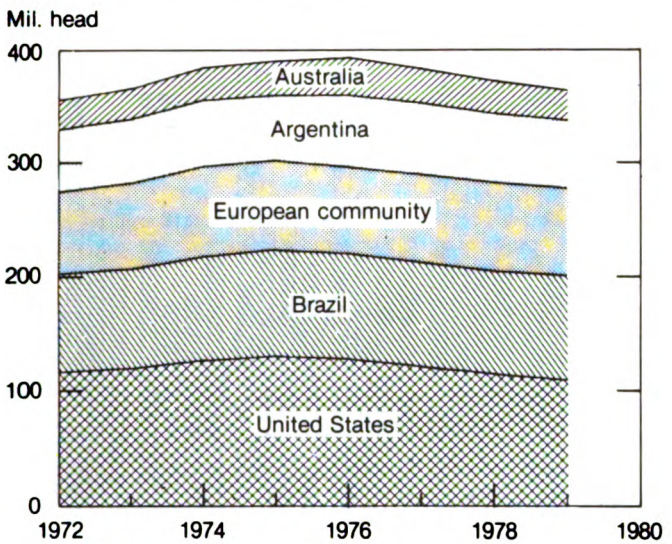
The cattle inventory in the world's major beef producing countries in 1979 dropped a total of 28 million head from the peak of 1976; the 1979 count was down an average of 4 percent from 1978. However, rising prices could encourage cattle producers to rebuild herds after years of relatively low prices and high slaughter rates.

U.S. beef and veal production for 1978 decreased 5 percent from the 1977 level, marking the second year of decline since 1976 when output posted a new high. Volume of U.S. imports of beef and veal in 1978 gained 18 percent over the 1977 level because of a rapid increase in prices for imported boneless beef. As a result, imports as a percent of production rose 7.5 percent in 1977.

---

Chart 189

**Cattle Numbers in Major Beef Producing Countries**



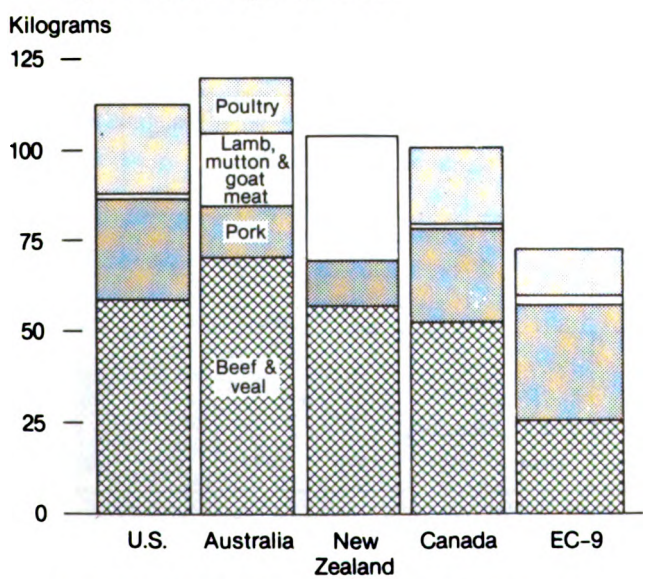

Inventory taken as close to January 1 as possible.

**Cattle Numbers in Major Beef Producing Countries**

| | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|
| | *Million head* | | | |
| United States | 128.0 | 122.8 | 116.4 | 110.9 |
| Brazil | 92.0 | 91.0 | 89.0 | 90.0 |
| EC-9 | 77.5 | 77.1 | 77.2 | 78.0 |
| Argentina | 61.5 | 61.3 | 60.5 | 58.2 |
| Australia | 33.4 | 31.5 | 29.4 | 27.1 |

Chart 190

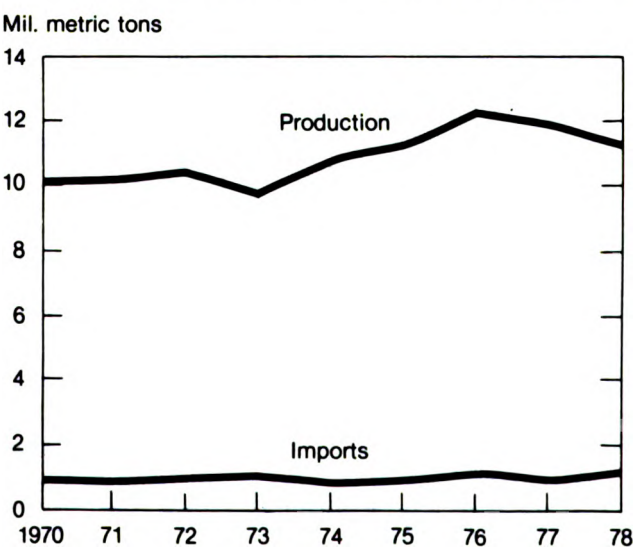
**Per Capita Meat Consumption In Major Producing Countries**




Meat consumption is in carcass weight basis. Poultry consumption data for New Zealand are not available. 1977 data.

Chart 191

**U.S. Beef and Veal Production and Imports**



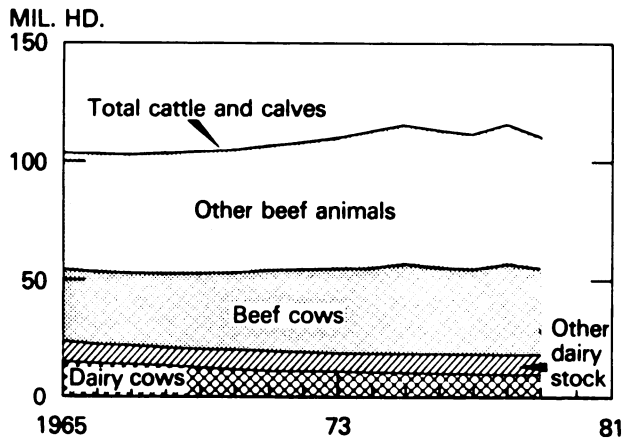
# LIVESTOCK

The inventory of cattle and calves on U.S. farms and ranches stood at 111 million head on January 1, 1979. That was 21 million fewer than at the start of 1975, when the herd was the largest ever. After 1975, herd numbers started to decline. However, this liquidation phase may be behind us. The January 1, 1980, inventory should show an increase of 1 to 3 million head.

Reflecting the heavy slaughter associated with herd liquidation, beef and veal production hit a record in 1976. Production since then has declined each year. Commercial beef production in 1979 will be about 21 billion pounds, almost 20 percent below that of 3 years earlier. A small decline in production is likely in 1980.

Chart 192

## Cattle on Farms, January 1




Beef cows and dairy cows are those that have calved.
Other dairy stock includes estimate of replacement heifer calves.

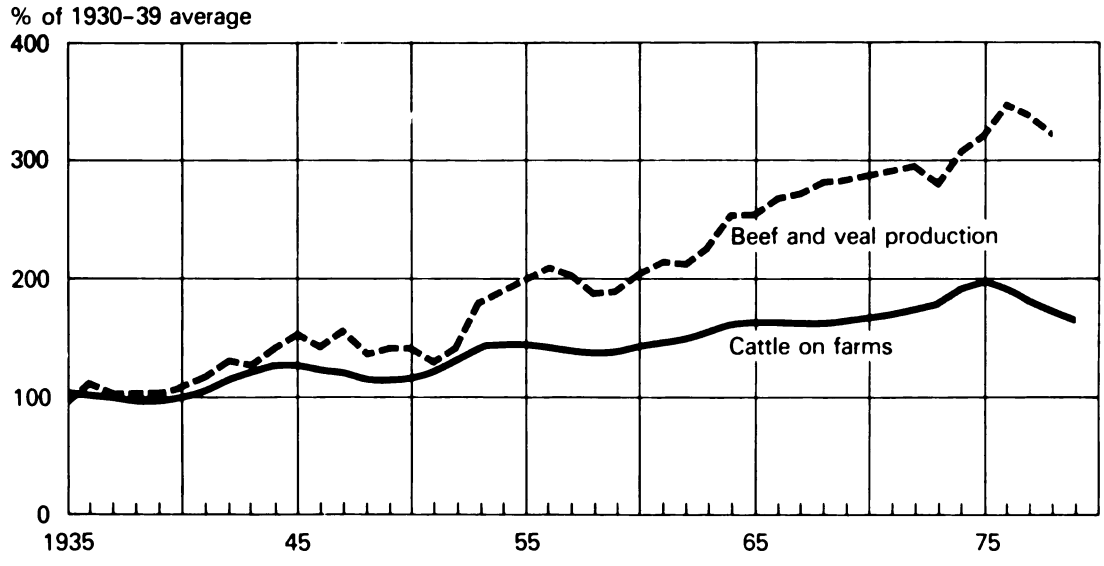
**Cattle on Farms, January 1**

| | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|
| | *Million head* | | | |
| Cattle and calves[2] | 128.0 | 122.8 | 116.4 | 110.9 |
| Beef cows | 43.9 | 41.4 | 38.8 | 37.0 |
| Other beef animals | 65.1 | 62.6 | 58.8 | 55.1 |
| Dairy cows | 11.1 | 11.0 | 10.9 | 10.9 |
| Other dairy stock[3] | 7.9 | 7.8 | 7.8 | 7.9 |

[1] Preliminary. [2] The 1980 forecast is 112-118 million head. [3] Includes estimate of replacement heifer calves.

Chart 193

## Change in Cattle Numbers and Beef Production




Cattle and calves on farms January 1. 1979 forecast.

**Cattle Numbers, Beef and Veal Production[1]**

| | 1940 | 1950 | 1960 | 1970 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979[2] |
|---|---|---|---|---|---|---|---|---|---|---|
| | *1930-39=100* | | | | | | | | | |
| Cattle and calves on farms, January 1 | 102 | 117 | 144 | 168 | 191 | 197 | 191 | 184 | 174 | 166 |
| Beef and veal production | 106 | 140 | 206 | 289 | 307 | 323 | 349 | 339 | 323 | 321 |

[1] Averages for 1930-39 are: Cattle and calves on farms, January 1, 66.9 million head; beef and veal production, 7,695 million pounds. [2] Forecast.

# LIVESTOCK

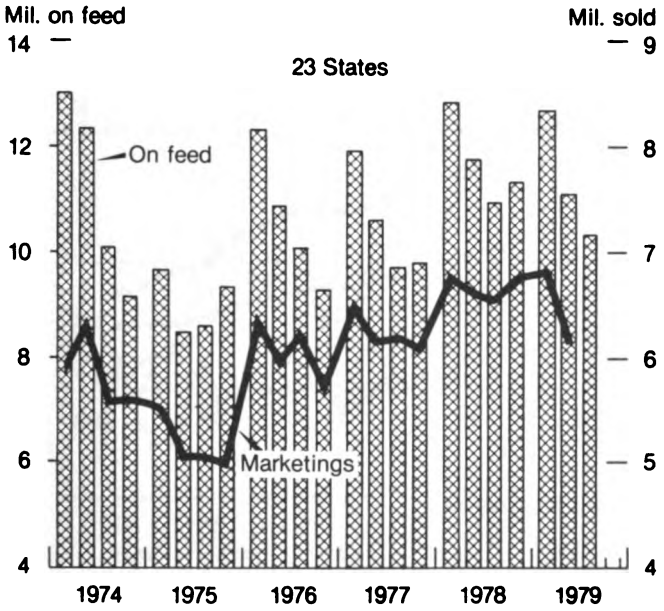
Escalating grain prices following the drought-reduced corn crop of 1973-74 and the resulting cost-price squeeze forced a scaling down of the cattle feeding industry in 1975. Marketings, at 20.5 million head, fell to a 9-year low. Placements and marketings picked up in 1976, 1977, and 1978 because of relatively cheap grain. This trend will be halted in 1979 as a result of declining cattle inventories and demand for breeding herd replacements.

The cyclical expansion in hog numbers which began in 1976 will continue through 1979 and, perhaps, into the spring of 1980. But the dramatic gain in pork production in 1979 and price weakness spells an end to the year-to-year increases in farrowings.

---

**Chart 194**

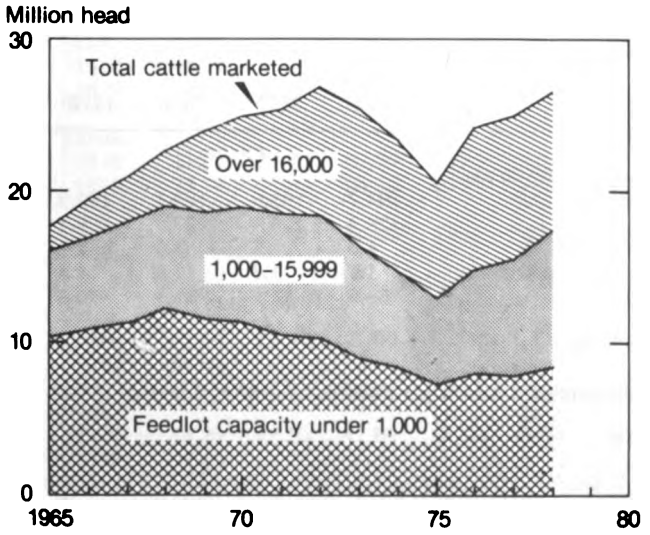
## Cattle on Feed and Marketings




Figures are million head, quarterly data.

**Chart 195**

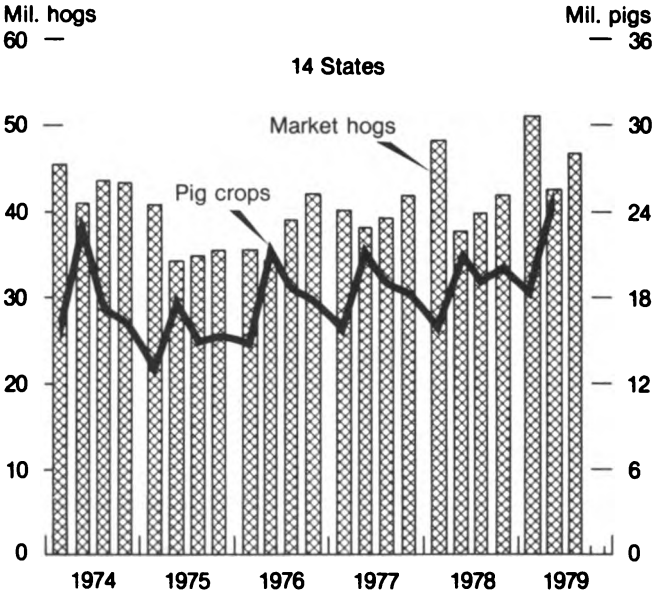
## Fed Cattle Marketed by Feedlot Capacity




Data are for 23 States.

**Chart 196**

## Market Hogs and Pig Crops




Pig crops—Dec.-Feb., Mar.-May, June-Aug., Sept.-Nov. Market hogs on farms—Dec. 1 previous year, March 1, June 1, Sept. 1, Dec.1.

**Market Hogs and Pig Crops**

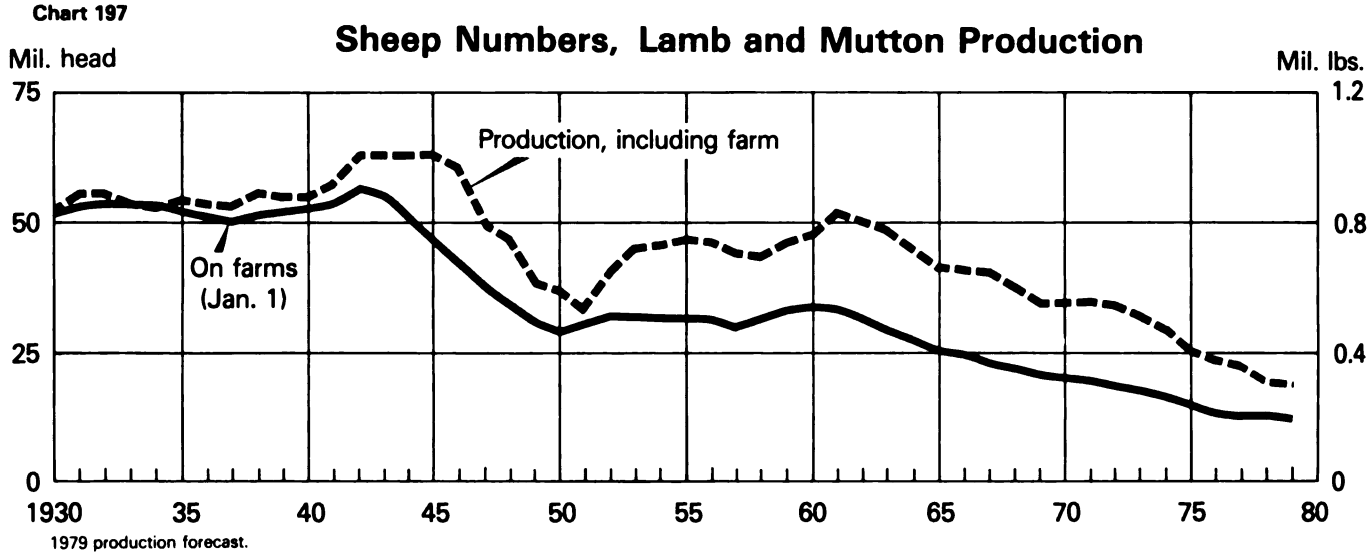
| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | | *Million head* | | |
| Pig crops | 71.2 | 84.4 | 86.2 | 88.2 |
| Spring | 35.5 | 42.2 | 43.0 | 42.3 |
| Fall | 35.7 | 42.2 | 43.2 | 45.9 |
| Hog slaughter | 69.9 | 75.0 | 78.4 | 78.4 |
| | | *Million pounds* | | |
| Pork production | 11,779 | 12,688 | 13,247 | 13,393 |

# LIVESTOCK

Reduction in sheep and lamb slaughter during 1979 and a lamb crop virtually the same as a year ago portend an increase in the inventory of sheep and lambs on farms on January 1, 1980. Production of lamb and mutton during 1979 may be about 2 percent under last year's levels, but 1980 production could show the first increase in 20 years.

Per capita beef and veal consumption peaked in 1976 at 133.3 pounds. Consumption has declined since then as the cattle herd liquidation progressed. Per capita use in 1979 will total about 110 pounds. Little or no gains in consumption are foreseen for 1980. Pork consumption has trended steadily upward since the recent record established in 1975.

Chart 197

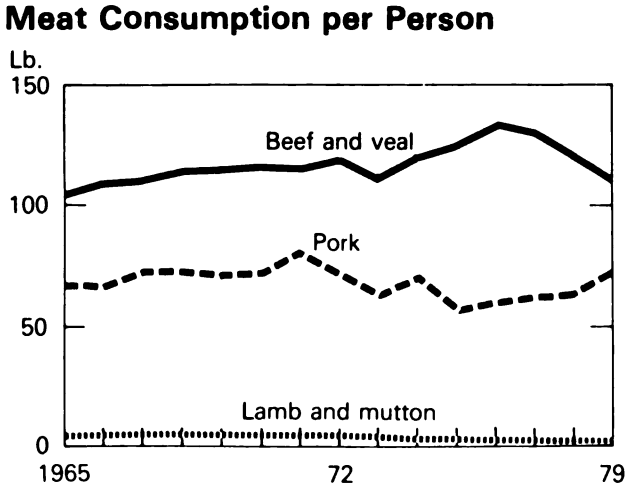



1979 production forecast.

**Sheep Numbers and Lamb and Mutton Production**

| | 1940 | 1950 | 1960 | 1970 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | *Million head* | | | | |
| Sheep and lamb on farms | 52.1 | 29.8 | 33.2 | 20.4 | 14.5 | 13.3 | 12.8 | 12.3 | 12.2 |
| | | | | | *Million pounds* | | | | |
| Lamb and mutton production | 876 | 597 | 768 | 551 | 410 | 371 | 351 | 309 | 303 |

Chart 198




Pounds in carcass weight basis. 1979 forecast

**Meat Consumption per Person**

| | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|
| | | | *Pounds* | |
| Total per capita meat consumption | 194.7 | 193.0 | 186.1 | 182.3 |
| Beef | 129.3 | 125.9 | 120.1 | 108.1 |
| Veal | 4.0 | 3.9 | 3.0 | 2.0 |
| Lamb and mutton | 1.9 | 1.7 | 1.6 | 1.6 |
| Pork | 59.5 | 61.5 | 61.4 | 70.6 |

[1] Preliminary.

Data published currently in *Livestock and Meat Situation* (ESCS).

# LIVESTOCK

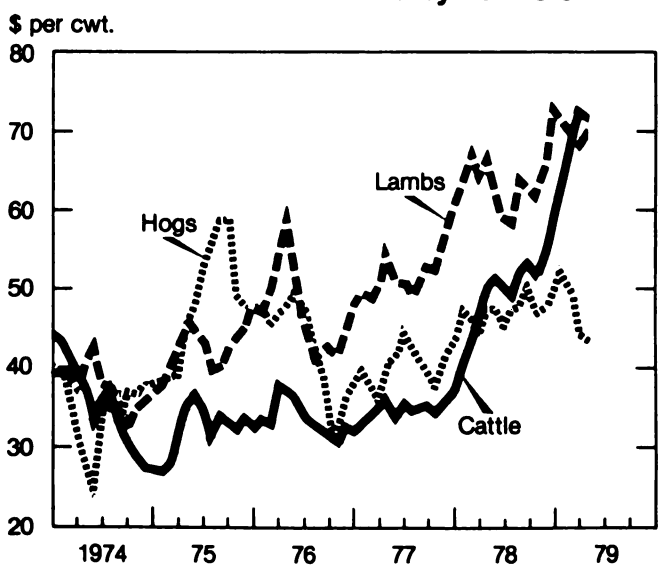
Cattle prices rose sharply again in 1979, up almost 30 percent from last year. Hog prices during the year declined about 15 percent. Pork production increased by a similar percentage.

Retail beef and pork prices have given the consumer little relief during 1979. Beef prices have averaged about 25 percent higher, while pork prices averaged about the same as last year.

Modest increases in both beef and pork prices are expected in 1980 as a result of the expectation of a general economic recovery and strong consumer demand.

Chart 199

**Livestock Prices Received by Farmers**




**Livestock Prices Received by Farmers**

| | Jan. | Feb. | Mar. | Apr. | May | June |
|---|---|---|---|---|---|---|
| | | | *Dollars/cwt.* | | | |
| Cattle: | | | | | | |
| 1978 | 37.20 | 39.90 | 43.80 | 47.30 | 50.30 | 51.30 |
| 1979 | 59.80 | 64.10 | 70.20 | 72.40 | 71.50 | 66.90 |
| Hogs: | | | | | | |
| 1978 | 43.90 | 47.90 | 46.80 | 44.80 | 47.80 | 47.70 |
| 1979 | 50.60 | 52.80 | 49.40 | 44.30 | 43.60 | 39.70 |
| Lambs: | | | | | | |
| 1978 | 61.00 | 62.60 | 67.70 | 64.20 | 67.20 | 62.80 |
| 1979 | 73.10 | 71.80 | 64.20 | 69.80 | 70.10 | 67.00 |
| | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | | *Dollars/cwt.* | | | |
| Cattle: | | | | | | |
| 1978 | 49.80 | 48.80 | 51.60 | 53.20 | 51.50 | 54.10 |
| 1979 | 65.60 | | | | | |
| Hogs: | | | | | | |
| 1978 | 45.20 | 47.50 | 47.60 | 51.10 | 46.70 | 48.00 |
| 1979 | 37.90 | | | | | |
| Lambs: | | | | | | |
| 1978 | 58.70 | 48.90 | 64.50 | 62.80 | 61.90 | 65.10 |
| 1979 | 65.00 | | | | | |

Chart 200

**Cattle Prices**

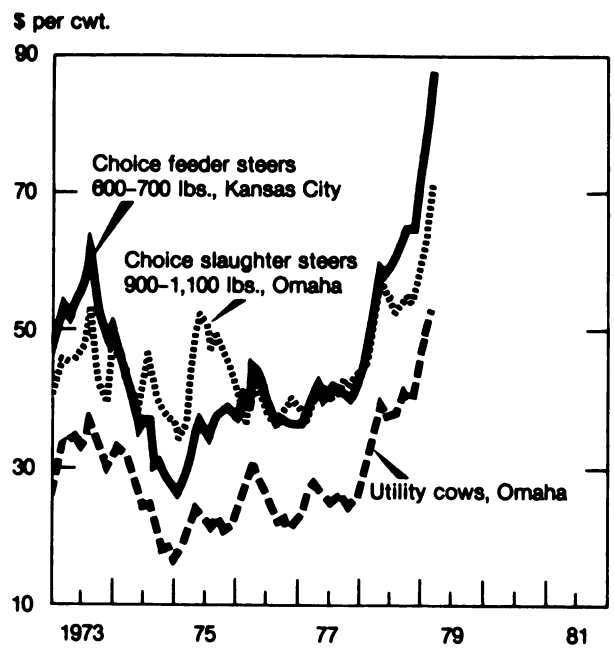
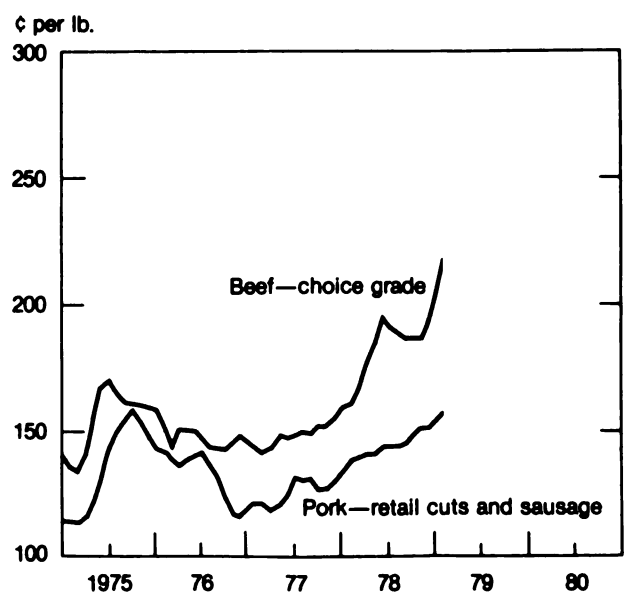



Chart 201

**Retail Meat Prices**




Economics, Statistics, and Cooperatives Service composite price.

# LIVESTOCK

The value of U.S. exports of livestock, meat, and meat products in calendar 1978 rose to $2.6 billion, 16 percent more than the previous year's level, mainly because of higher unit values. The leading export earners were hides and skins, valued at $686 million; lard and tallow, at $549 million; and red meat, $447 million. The United States remains the principal world supplier of raw hides used for leather.

U.S. imports of red meat in calendar 1978 jumped 16 percent from 1977 levels, bringing total red meat imports to 2.8 billion pounds (carcass weight equivalent). Beef and veal accounted for 71 percent of the meat imported in 1978. Most of this was beef, which is currently in short supply.

Chart 202

## U.S. Exports of Livestock Products

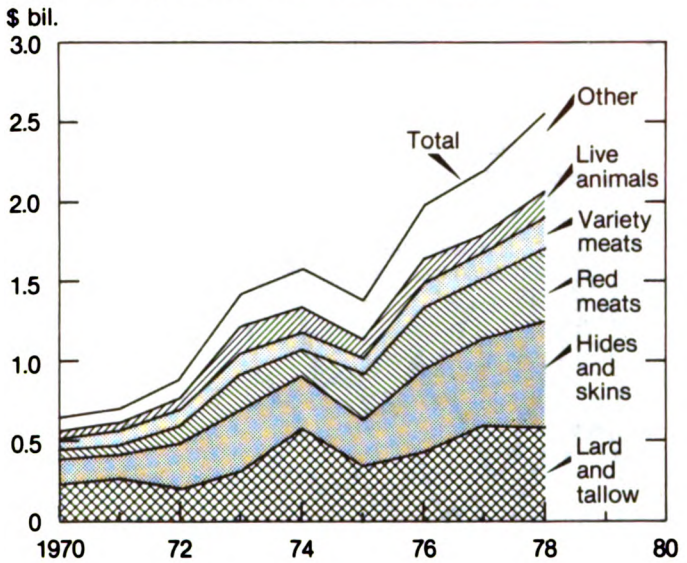
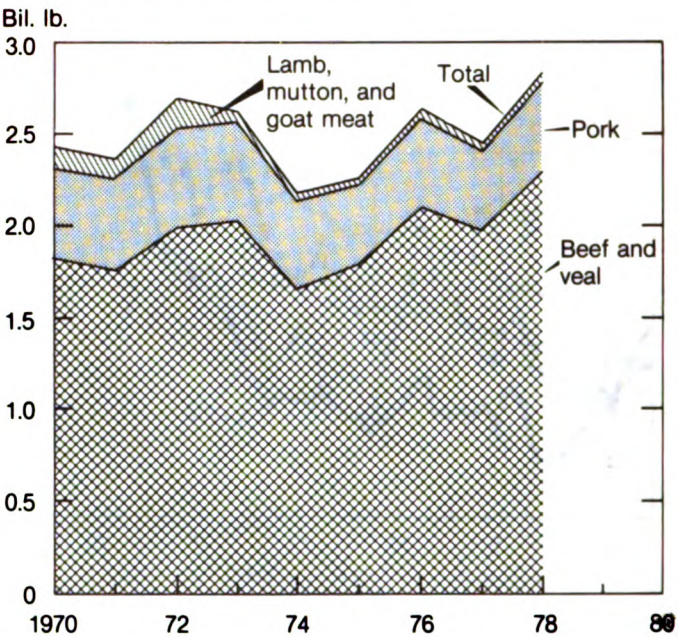



Chart 203

## U.S. Imports of Red Meats




Carcass-weight equivalent.

### U.S. Exports of Livestock Products

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Total exports | 1,391.1 | 1,984.4 | 2,196.0 | 2,552.2 |
| Red meats (excluding offals and horse meat) | 268.8 | 397.1 | 374.2 | 447.2 |
| Live animals | 112.9 | 132.4 | 105.7 | 150.1 |
| Animal byproducts: | | | | |
| Lard | 23.6 | 35.4 | 39.4 | 32.9 |
| Tallow | 331.8 | 403.7 | 548.6 | 549.4 |
| Hides and skins | 291.6 | 518.0 | 561.5 | 685.7 |
| Variety meats (offals) | 109.9 | 151.6 | 157.6 | 198.4 |
| Casings and mohair | 37.4 | 49.6 | 48.5 | 54.4 |
| Furskins | 115.1 | 175.7 | 224.3 | 231.6 |
| Other | 100.0 | 121.1 | 136.3 | 202.6 |

### U.S. Imports of Red Meats[1]

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million pounds* | | | |
| Imports | 2,248 | 2,606 | 2,424 | 2,819 |
| Beef and veal | 1,782 | 2,101 | 1,963 | 2,291 |
| Pork | 439 | 469 | 439 | 487 |
| Mutton and goat | 2 | 2 | 1 | 3 |
| Lamb | 25 | 34 | 21 | 38 |

[1] Carcass-weight equivalent.

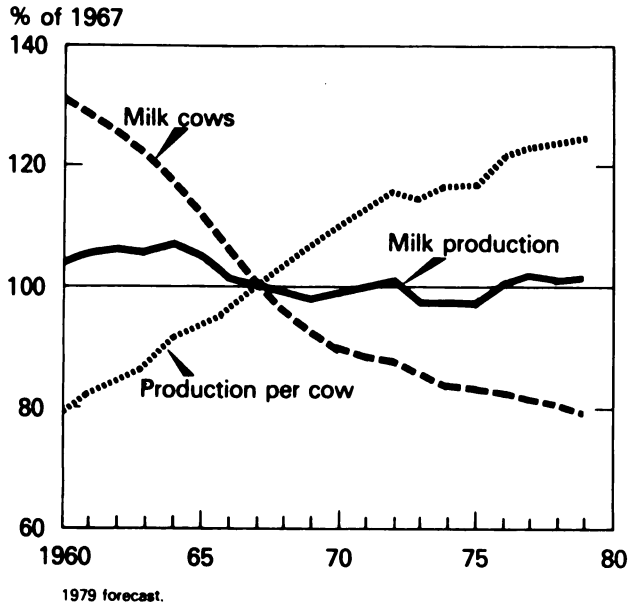
# DAIRY

Sharply higher feed prices during 1973-75 caused milk output per cow to deviate from what had been a very stable long-run trend. However, improved milk-feed price relationships in 1976/77 and a marked slowing in the drop in number of milk cows resulted in a jump in total production. With a sharper drop in cow numbers and more stable output per cow, production in 1978 dropped slightly before increasing in 1979; a more moderate decline in cow numbers and stronger gains in output per cow prevailed.

Prices of dairy feed concentrates rose much more rapidly than milk prices in 1973-74, causing a substantial deterioration in milk-feed price relationships. Rising milk prices with lower feed prices since 1977 lifted the ratio.

Chart 204

## Milk Production, Number of Cows, And Milk Per Cow




1979 forecast.

**Milk Production, Number of Cows, and Milk per Cow**

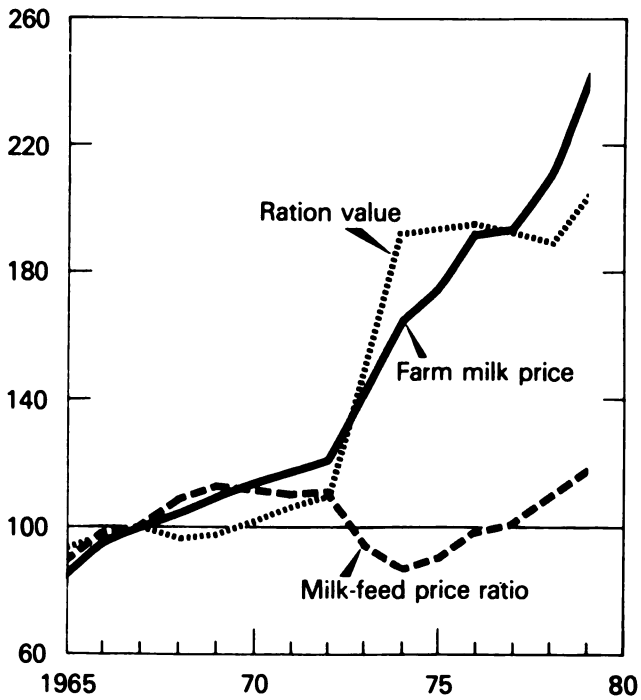
| | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|
| Milk production: | | | | |
| Billion pounds | 120.3 | 122.7 | 121.9 | 122.2 |
| Percentage of 1967 | 101.3 | 103.3 | 102.7 | 102.9 |
| Milk cows on farms:[2] | | | | |
| Million | 11.1 | 11.0 | 10.8 | 10.7 |
| Percentage of 1967 | 82.4 | 81.8 | 80.1 | 79.9 |
| Milk production per cow: | | | | |
| Pounds | 10,879 | 11,181 | 11,240 | 11,385 |
| Percentage of 1967 | 122.9 | 126.3 | 127.0 | 128.6 |

[1] Forecast. [2] Average number on farms during the year, excluding heifers not yet fresh.

Computed from data published in *Milk Production, Disposition, and Income* (ESCS).

Chart 205

## Milk-Feed Price Relationships




Ration value refers to concentrate ration fed to milk cows. Milk-feed price ratio is the pounds of 16% protein ration equal in value to 1 pound of milk sold to plants. 1979 forecast.

**Milk-Feed Price Relationships**

| | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|
| Milk-feed price ratio: | | | | |
| Pounds | 1.37 | 1.39 | 1.53 | 1.58 |
| Percentage of 1967 | 101.5 | 101.3 | 113.3 | 117.0 |
| Dairy feed, 16-percent protein: | | | | |
| Dollars per ton | 141 | 140 | 138 | 153 |
| Percentage of 1967 | 188.0 | 186.7 | 184.0 | 204.0 |
| Milk price:[2] | | | | |
| Dollars per cwt. | 9.66 | 9.72 | 10.58 | 12.0 |
| Percentage of 1967 | 192.4 | 193.6 | 210.8 | 241.0 |

[1] Forecast. [2] All sold to plants and dealers.

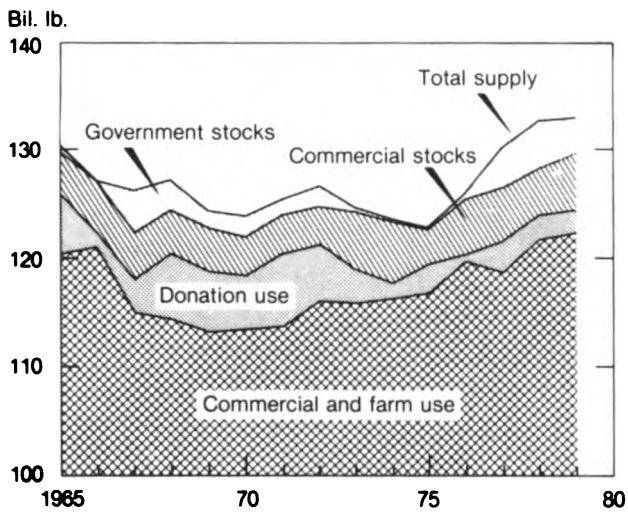
# DAIRY

After peaking in 1963, supplies of milk and dairy products trended downward through 1975, mostly because of lower milk production. Domestic use also declined as Government donations were reduced. The 1976-78 increase in supplies was not matched by a corresponding rise in total use, however, and Government stocks grew through 1978, before declining sharply in 1979.

During 1966-75, changes in cash receipts from sales of milk and cream closely followed the rise in farm milk prices, since the quantity of milk marketed was fairly stable. The 1976 and 1977 increase in milk marketings and the 1978 price increase helped boost cash receipts.

Chart 206

## Milk Supply, Use, and Stocks




Stocks as of December 31. 1979 forecast

### Milk Supply, Use, and Stocks

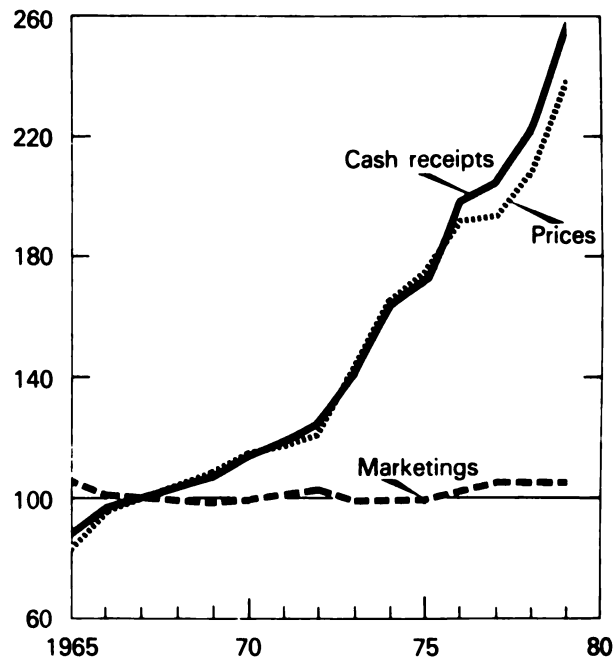
| | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|
| | *Billion pounds* | | | |
| Supply[2] | 126.1 | 130.4 | 132.9 | 133.0 |
| Production | 120.3 | 122.7 | 121.9 | 122.2 |
| Imports | 1.9 | 2.0 | 2.3 | 2.1 |
| Use | 120.4 | 121.7 | 124.1 | 124.6 |
| Commercial and farm | 119.8 | 118.7 | 121.8 | 122.3 |
| Domestic donations[3] | .5 | 3.0 | 2.3 | 2.3 |
| Government exports[4] | ([5]) | ([5]) | ([5]) | ([5]) |
| Stocks, Dec. 31 | 5.7 | 8.6 | 8.8 | 8.4 |
| Commercial | 5.3 | 4.9 | 4.5 | 5.3 |
| Government | .4 | 3.7 | 4.3 | 3.1 |

[1] Forecast. [2] Includes beginning commercial and Government stocks. [3] Includes donations and transfers to the military. [4] Includes shipments to territories and exports under the Food for Peace Program. [5] Less than 50 million pounds.

Data published currently in *Dairy Situation* (ESCS).

Chart 207

## Milk Marketings, Prices, And Cash Receipts




1979 forecast

### Milk Marketings, Prices, and Cash Receipts

| | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|
| Farm sales of milk and cream:[2] | | | | |
| Billion pounds | 117.3 | 119.9 | 119.3 | 119.7 |
| Percentage of 1967 | 103.3 | 105.5 | 105.0 | 105.4 |
| Average return per 100 pounds: | | | | |
| Dollars | 9.74 | 9.80 | 10.67 | 12.19 |
| Percentage of 1967 | 192.5 | 193.7 | 210.9 | 240.9 |
| Cash receipts: | | | | |
| Million dollars | 11,428 | 11,752 | 12,722 | 14,590 |
| Percentage of 1967 | 199.0 | 204.7 | 221.6 | 254.1 |

[1] Forecast. [2] Milk equivalent, fat-solids basis.

Computed from data published in *Milk Production, Disposition, and Income* (ESCS).

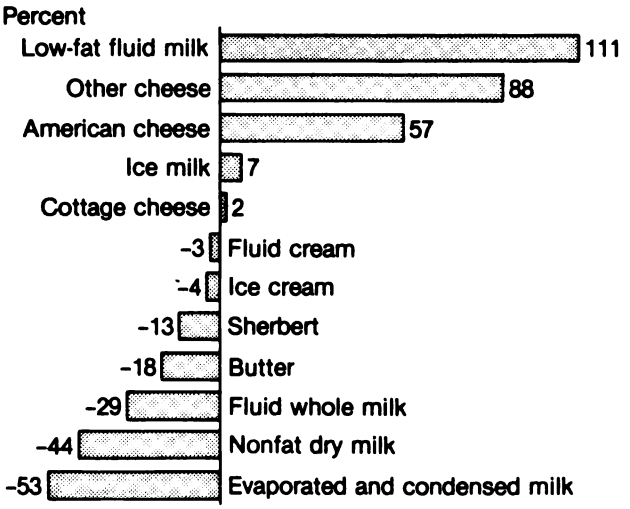
# DAIRY

Cheese sales have jumped over the past decade as a result of rising consumer incomes and changing lifestyles. Consumers have shifted toward products containing less fat because of concerns about health and higher prices for cheese.

Government purchases under the price-support program fell during 1973-76. Increases in milk output during 1976-77, without a corresponding growth in commercial use, brought about much larger USDA purchases in 1977. Purchases decreased in 1978 as a result of a slight decline in milk output, coupled with rapid growth in commercial use. Buying slackened even more in 1979, as milk supplies and commercial use were in close balance.

Chart 208

## Changes in per Capita Dairy Product Sales, 1968-78



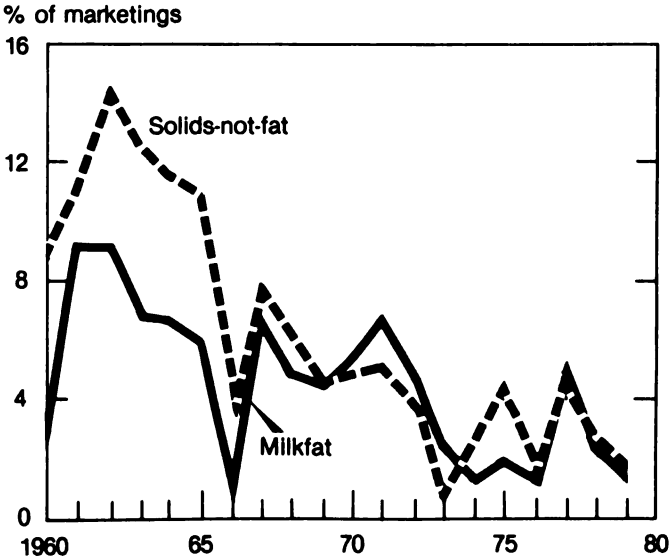

**Changes in per Capita Dairy Product Sales[1]**

| | 1968 | 1973 | 1978 | 1968-78 % chg. |
|---|---|---|---|---|
| | *Pounds* | | | *Percent* |
| Fluid whole milk | 227 | 195 | 161 | -29.1 |
| Low-fat fluid milk[2] | 42.2 | 67.9 | 91.7 | +117.3 |
| Fluid cream[3] | 5.8 | 5.5 | 5.0 | -3.4 |
| Butter | 5.0 | 4.0 | 4.1 | -18.0 |
| American cheese | 6.0 | 7.9 | 9.4 | +56.7 |
| Other cheese | 4.0 | 5.7 | 7.5 | +87.5 |
| Cottage cheese[4] | 4.7 | 5.3 | 4.8 | +2.1 |
| Evaporated and condensed milk | 8.7 | 5.7 | 4.1 | -52.9 |
| Ice cream | 18.6 | 17.7 | 17.9 | -3.8 |
| Ice milk | 7.2 | 7.6 | 7.7 | +6.9 |
| Sherbert | 1.6 | 1.6 | 1.4 | -12.5 |
| Nonfat dry milk | 5.2 | 5.0 | 2.9 | -44.2 |

[1] Based on resident population except fluid milk products, which are based on estimated population using fluid products from purchased sources. [2] Includes skim milk, buttermilk, and flavored milk drinks. [3] Includes milk and cream mixtures. [4] Includes full-skim American.

Chart 209

## Milk Solids Removed From the Market by CCC Programs




Deliveries to the Commodity Credit Corporation after domestic unrestricted sales. 1979 forecast.

**Milk Solids Removed From the Market By CCC Programs[1]**

| | 1976 | 1977 | 1978 | 1979[2] |
|---|---|---|---|---|
| Milkfat: | | | | |
| Million pounds | 46.8 | 230.8 | 106.3 | 46.7 |
| Percentage of marketings | 1.1 | 5.1 | 2.4 | 1.1 |
| Solids-not-fat: | | | | |
| Million pounds | 167.2 | 494.9 | 290.7 | 180.4 |
| Percentage of marketings | 1.6 | 4.8 | 2.8 | 1.8 |

[1] Purchases, delivery basis, after domestic unrestricted sales. [2] Forecast.

Data published currently in *Dairy Situation* (ESCS).

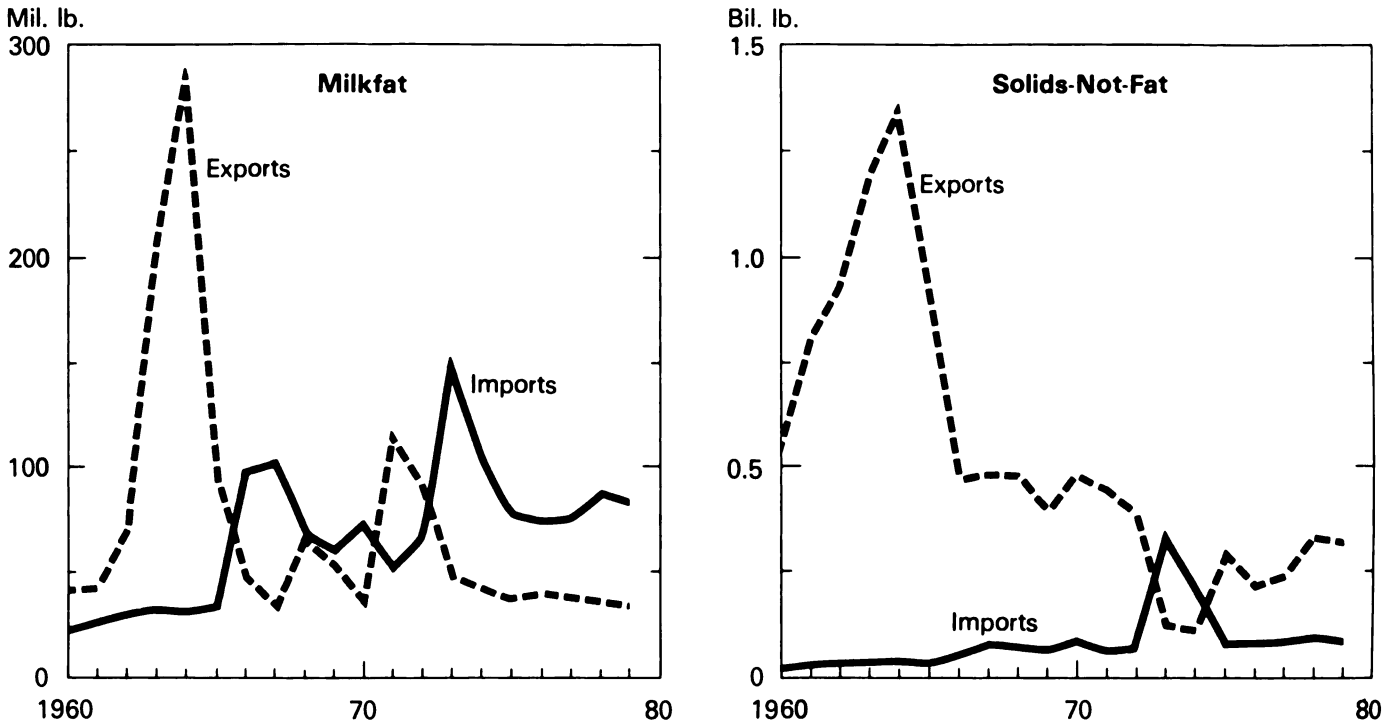
# DAIRY

In recent years, U.S. trade in dairy products has been fairly stable at relatively low levels, with imports equal to less than 2 percent of U.S. output, and exports less than 1 percent.

Except for the temporary supplemental quotas authorized in 1973-74, the quota system has limited imports. Because domestic prices have generally been higher than those of Oceanic or subsidized European products, commercial exports have remained small. Heavy exports have occurred only when feed aid donations were large. Of total dairy imports, cheese has accounted for more than 85 percent.

Chart 210

## Dairy Imports and Exports




1979 forecast.

**Dairy Imports and Exports**

| | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | *Million pounds* | | | | |
| Milkfat | | | | | | | | | |
| Imports | 52 | 66 | 150 | 108 | 65 | 74 | 75 | 87 | 84 |
| Exports[2] | 114 | 82 | 48 | 41 | 38 | 39 | 38 | 36 | 33 |
| Solids-not-fat | | | | | | | | | |
| Imports | 57 | 67 | 335 | 216 | 67 | 76 | 81 | 95 | 81 |
| Exports[2] | 447 | 385 | 123 | 119 | 203 | 215 | 239 | 333 | 317 |

[1] Forecast. [2] Includes shipments to U.S. territories.

Data published currently in *Dairy Situation* (ESCS).

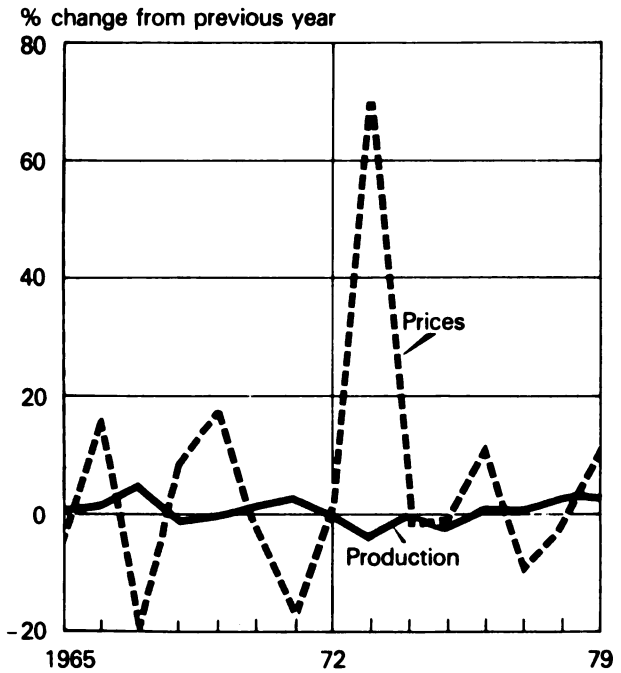
# POULTRY

Egg production for 1979 should rise 3 percent over 1978 levels. Egg producers responded to favorable profit margins by increasing layer numbers: Production during January-July was up 2.6 percent from the 1978 period, and output for the rest of 1979 will be at least 3 percent higher than in the last half of 1978. Most of the increased output this year will come from a larger laying flock. Output per layer will be up, but only slightly.

Despite the larger egg production in 1979, egg prices will average higher than those a year earlier. Egg prices this year have been boosted by stronger prices of other high protein foods. Prices during the first half of the year were up 18 percent, and they will stay higher.

Chart 211

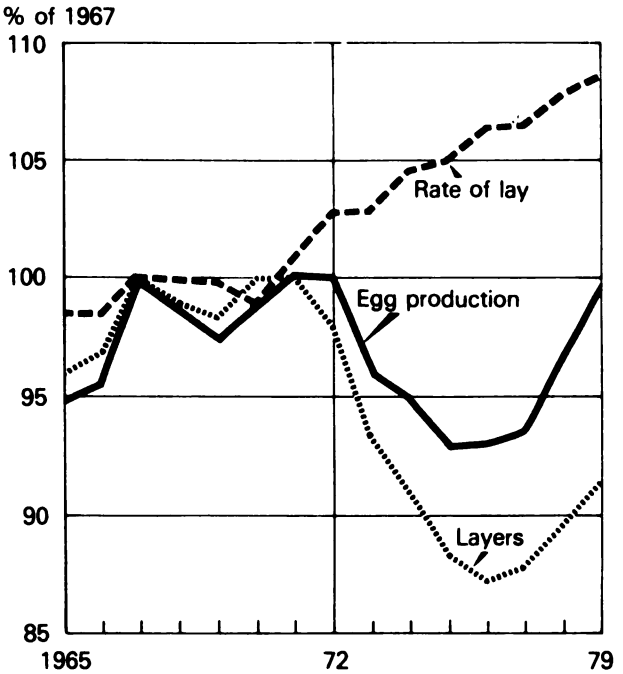
## Eggs: Changes in Production and Farm Prices




1978 preliminary. 1979 forecast

Chart 212

## Eggs: Rate of Lay, Production, and Number of Layers




1979 forecast.

**Eggs: Changes in Production and Farm Prices[1]**

| | 1976 | 1977 | 1978[2] | 1979[3] |
|---|---|---|---|---|
| Egg production: | | | | |
| Million dozen | 5,377 | 5,407 | 5,596 | 5,751 |
| Percentage change from year earlier | -0.1 | 0.6 | 3.5 | 2.7 |
| Farm prices: | | | | |
| Cents per dozen | 59.7 | 54.2 | 52.7 | 57.8 |
| Percentage change from year earlier | 13.1 | -9.2 | -2.8 | 9.7 |

[1] Simple average. [2] Preliminary. [3] Forecast.

**Eggs: Rate of Lay, Production, and Number of Layers[1]**

| | 1976 | 1977 | 1978[2] | 1979[3] |
|---|---|---|---|---|
| | *Million* | | | |
| Egg production | 64,520 | 64,886 | 67,155 | 69,000 |
| Eggs per layer[4] | 235 | 236 | 239 | 240 |
| Number of layers | 274 | 275 | 281 | 288 |
| | *Percentage of 1967[5]* | | | |
| Egg production | 93.1 | 93.6 | 96.9 | 99.4 |
| Eggs per layer | 106.5 | 106.5 | 107.9 | 108.6 |
| Number of layers | 87.4 | 87.8 | 89.7 | 91.4 |

[1] Simple average. [2] Preliminary. [3] Forecast. [4] Total egg production divided by average number of layers on hand. [5] Computed from unrounded data.

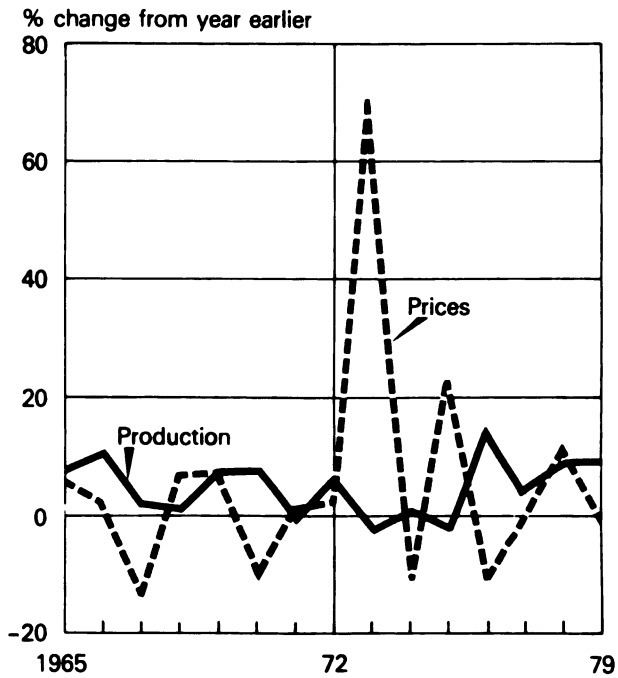
# POULTRY

Broiler production will set a record in 1979, exceeding 1978 output by 10 percent or more. Producer returns were good during much of the first half of the year and spurred continued expansion in broiler production. The large broiler output combined with increasing supplies of competing meats, caused broiler prices to drop sharply in the late spring and early summer to below production and marketing costs.

Turkey production in 1979 will also hit a new high—10 to 12 percent above 1978 levels. Output the first half of the year was up 17 percent, but output during the heavy production months of the second half will be up much less—perhaps about 8 percent.

Chart 213

## Broilers: Changes in Production and Farm Prices




1978 preliminary. 1979 forecast.

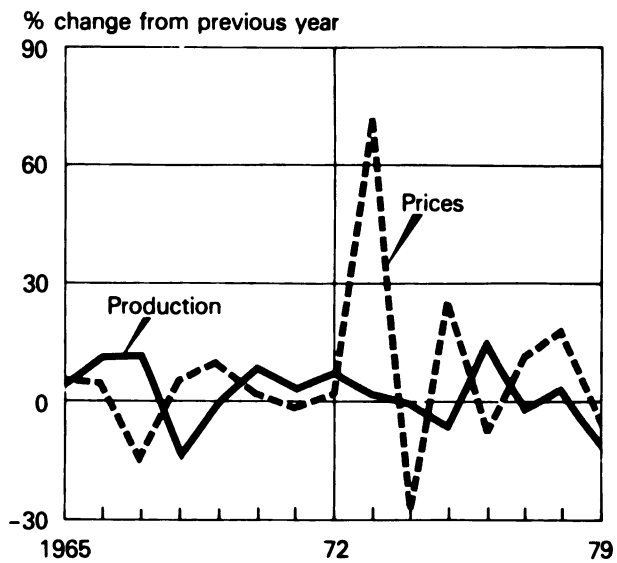
**Broilers: Changes in Production and Farm Prices[1]**

| | 1976 | 1977 | 1978[2] | 1979[3] |
|---|---|---|---|---|
| Broiler production: | | | | |
| Million pounds, liveweight | 12,517 | 12,993 | 14,052 | 15,500 |
| Percentage change from year earlier | 12.8 | 3.8 | 8.2 | 10.0 |
| Farm prices: | | | | |
| Cents per pound | 23.6 | 23.6 | 26.3 | 25.3 |
| Percentage change from year earlier | -10.3 | 0 | 11.4 | -3.4 |

[1] December previous year through November current year. [2] Preliminary. [3] Forecast.

Chart 214

## Turkeys: Changes in Production and Farm Prices




1978 preliminary. 1979 forecast.

**Turkeys: Changes in Production and Farm Prices**

| | 1976 | 1977 | 1978[1] | 1979[2] |
|---|---|---|---|---|
| Turkey production: | | | | |
| Million pounds, liveweight | 2,605 | 2,562 | 2,669 | 2,990 |
| Percentage change from year earlier | 14.4 | -1.7 | 4.2 | 12.0 |
| Farm prices:[3] | | | | |
| Cents per pound | 31.7 | 35.5 | 43.6 | 40.5 |
| Percentage change from year earlier | -8.9 | 12.0 | 22.8 | -7.1 |

[1] Preliminary. [2] Forecast. [3] Weighted average.

# POULTRY

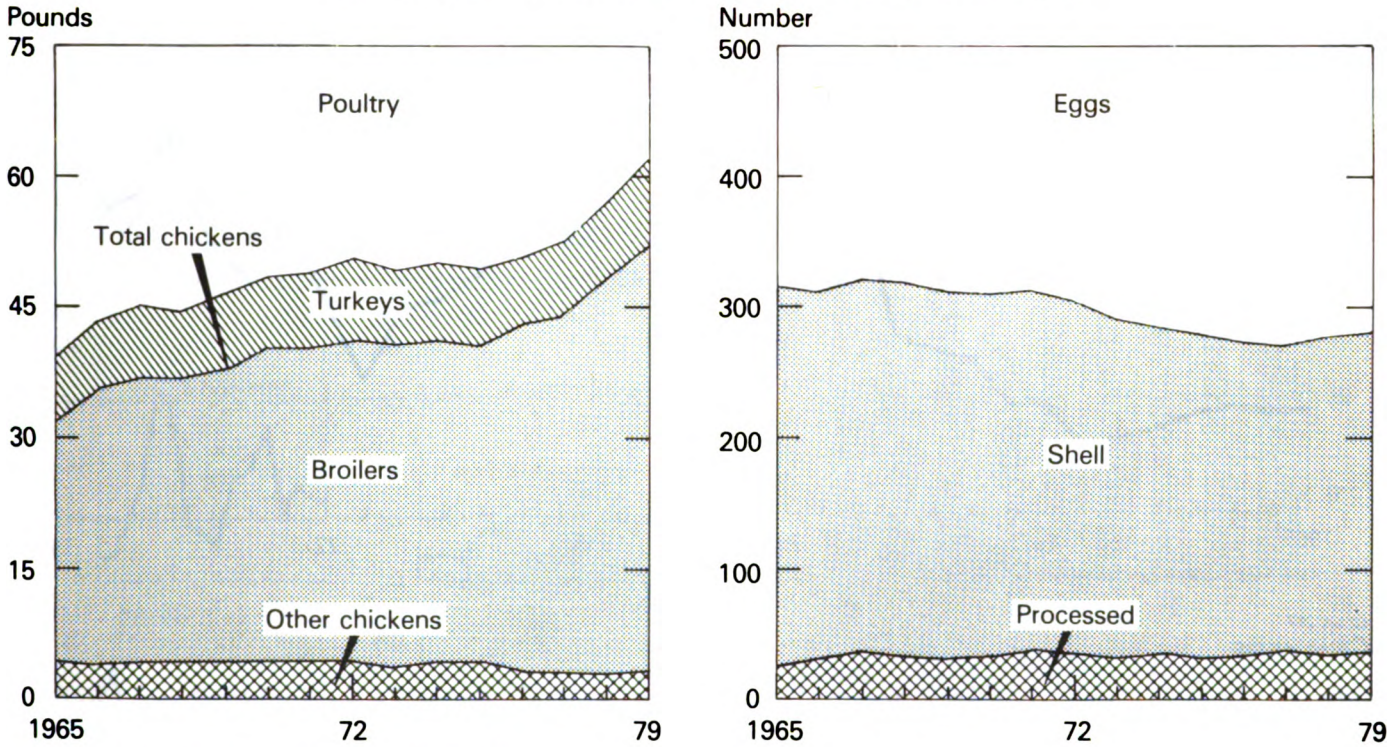
Per capita consumption of eggs in 1978 went up for the first time since 1971. Consumption this year is expected to increase another 3 to 5 eggs per person from the 277 consumed in 1978, despite higher prices to shoppers.

Chicken and turkey meat consumption in 1979 will increase about 5 pounds per person, to a record 62 pounds. Chicken consumption will probably be up about 4 pounds per person, with broilers accounting for all of the gain. Turkey consumption in 1979 will reach an alltime high and will exceed 10 pounds per person, compared with 9.4 pounds in 1978.

---

**Chart 215**

## Per Capita Consumption of Poultry and Eggs




Ready-to-cook weight. Processed eggs converted to shell equivalent.

**Per Capita Consumption of Poultry and Eggs**

| | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978[1] | 1979[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | *Pounds* | | | | |
| Total poultry meat | 48.8 | 50.9 | 49.2 | 50.0 | 49.2 | 52.5 | 54.1 | 57.1 | 62.4 |
| Chicken | 40.5 | 42.0 | 40.7 | 41.1 | 40.6 | 43.3 | 44.8 | 47.7 | 52.1 |
| Broilers | 36.7 | 38.4 | 37.4 | 37.5 | 37.2 | 40.4 | 41.7 | 44.7 | 49.2 |
| Other | 3.8 | 3.6 | 3.3 | 3.6 | 3.4 | 2.9 | 3.1 | 3.0 | 2.9 |
| | | | | | *Number* | | | | |
| Eggs | 312 | 304 | 291 | 286 | 280 | 274 | 272 | 277 | 282 |
| Shell | 275 | 269 | 260 | 252 | 248 | 241 | 235 | 242 | 243 |
| Processed[3] | 37 | 35 | 31 | 34 | 32 | 33 | 37 | 35 | 39 |

[1] Preliminary. [2] Forecast. [3] Shell equivalent of processed eggs.

# POULTRY

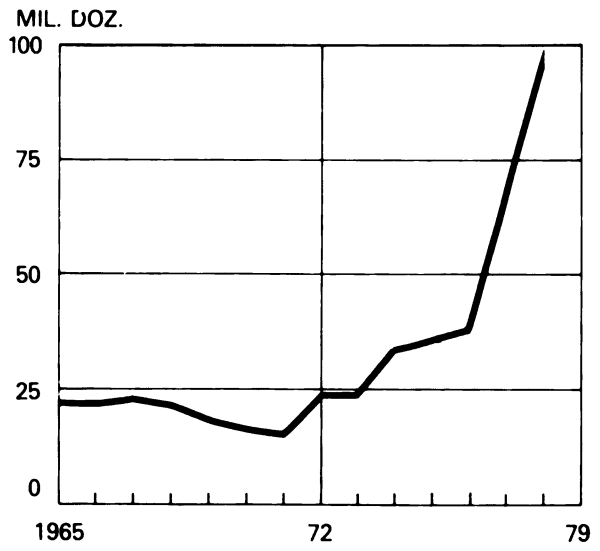
Exports of chicken in 1978 increased from the previous year, but egg and turkey exports declined. For the first half of 1979, exports of young chickens were up a fifth from 1978, while mature chickens were off 13 percent; turkey exports dropped 12 percent from the previous year.

Egg exports were down nearly 40 percent in the first half of 1978. Exports of young chickens will probably remain above 1978 during the rest of 1979. However, turkey and egg shipments for all of 1979 will likely lag 1978.

Chart 216

## U.S. Exports of Poultry Products

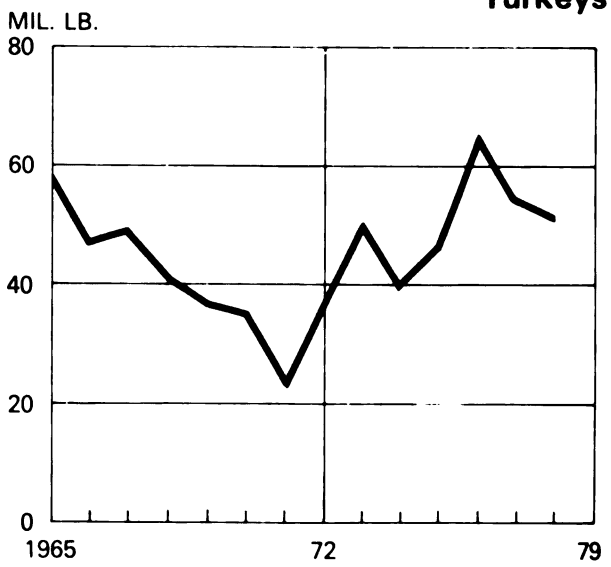
### Eggs




Shell eggs plus shell egg equivalent of egg products

Chart 218

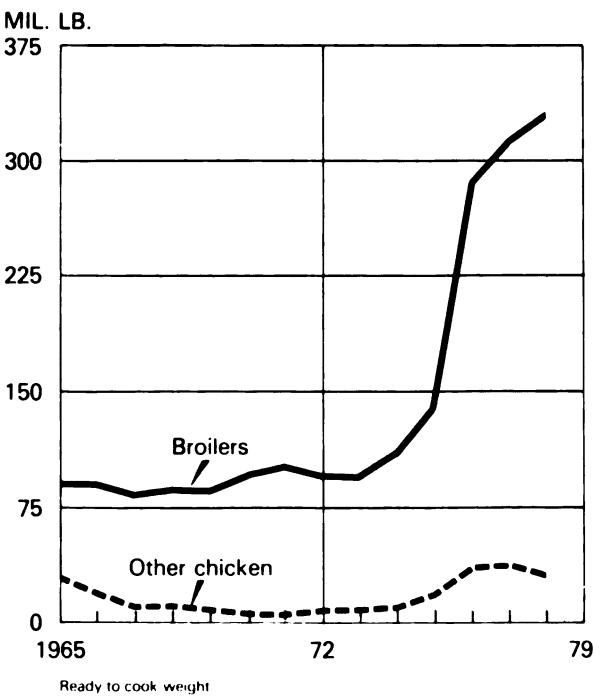
### Turkeys




Ready to cook weight

Chart 217

### Chickens




Ready to cook weight

**U.S. Exports of Poultry Products**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million pounds* | | | |
| Chicken[1] | 155 | 322 | 349 | 361 |
| Broilers | 138 | 287 | 313 | 331 |
| Other | 17 | 35 | 36 | 30 |
| Turkey[1] | 47 | 65 | 54 | 51 |
| | *Million dozens* | | | |
| Eggs | 35 | 38 | 67 | 97 |
| Shell | 22 | 30 | 48 | 47 |
| Processed[2] | 13 | 8 | 19 | 50 |

[1] Ready to cook weight. [2] Shell eggs plus the shell-egg equivalent of egg products.

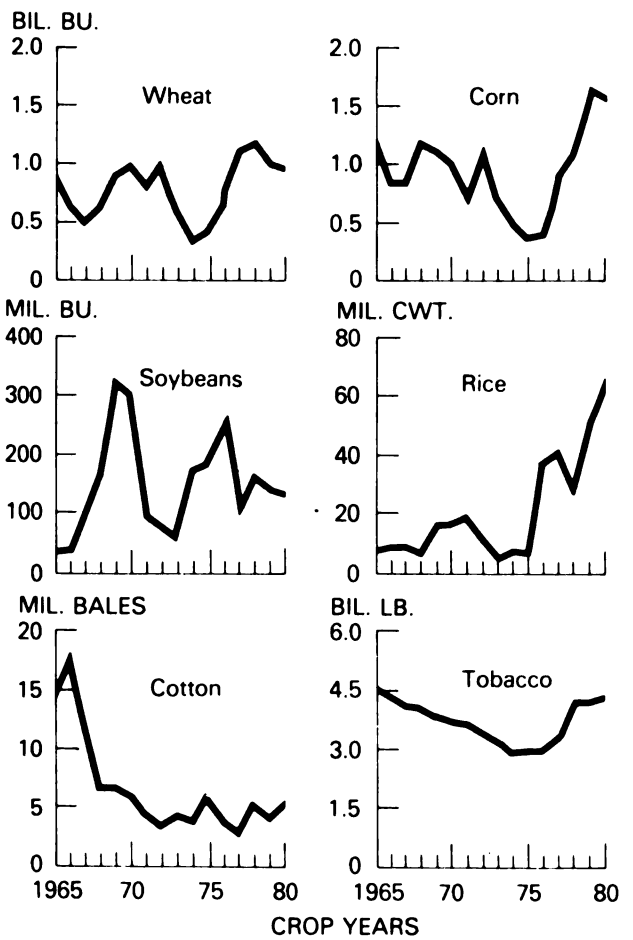
# COMMODITY STOCKS

Poor weather conditions in some other countries led to a surge in U.S. grain and soybean exports in the early 1970's, and stocks dropped to low levels. But U.S. grain production set new records each year from 1975 through 1978. Prospects are for 1979 production to be record large at 285 million metric tons.

World grain production in 1979/80 is forecast to be down 4 percent from the record 1978/79 output. Crop shortfalls in some countries point to larger U.S. grain exports and some drawdown in stocks in 1979/80.

Chart 219

## Stocks of Major Farm Commodities




Crop years beginning: Wheat July 1, 1960-64, June 1, 1965 to date; cotton and rice, August 1; soybeans, September 1; corn and other tobacco, October 1. 1980 forecast.

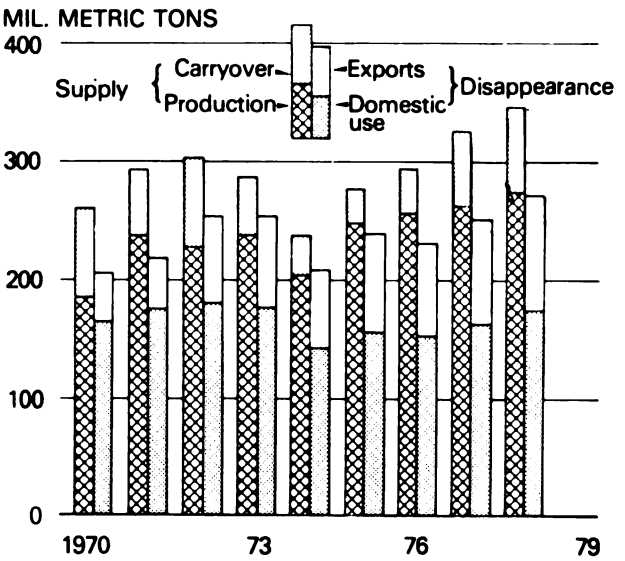
**Stocks of Major Farm Commodities[1]**

| | 1977 | 1978 | 1979[2] | 1980[2] |
|---|---|---|---|---|
| Wheat (bil. bu.) | 1.11 | 1.18 | 0.92 | 0.78 |
| Rice (mil. cwt.) | 40.5 | 27.4 | 3.16 | 33.4 |
| Soybeans (mil. bu.) | 103 | 161 | 160 | 330 |
| Cotton (mil. bales) | 2.9 | 5.3 | 4.0 | 6.1 |
| Corn (bil. bu.) | .88 | 1.10 | 1.24 | 1.07 |
| Tobacco (bil. lbs.) | 4.2 | 4.2 | 4.3 | 4.3 |

[1] Crop years beginning: wheat, June 1; flue-cured tobacco, July 1; cotton and rice, August 1; soybeans, September 1; corn and other tobacco, October 1. [2] Forecast.

Chart 220

## Total Grain Supply And Disappearance




Year beginning October 1 for corn and sorghum: June 1 for oats, barley, wheat, and rye; and August 1 for rice. Supply includes imports. 1978 estimated. 1979 projected.

**Total Grain Supply and Disappearance[1]**

| | 1976 | 1977 | 1978 | 1979[2] |
|---|---|---|---|---|
| | *Million metric tons* | | | |
| Supply | 294.9 | 326.2 | 347.9 | 353.3 |
| Carryover | 37.1 | 62.1 | 74.5 | 72.4 |
| Production | 257.3 | 263.7 | 273.1 | 280.7 |
| Imports | .6 | .4 | .4 | .3 |
| Disappearance | 232.6 | 251.6 | 275.5 | 294.7 |
| Domestic use | 153.2 | 161.4 | 178.4 | 181.6 |
| Exports | 79.4 | 90.2 | 97.1 | 113.1 |

[1] Year beginning October 1 for corn and sorghum; June 1 for oats, barley, wheat, and rye; and August 1 for rice. [2] Projected, based on August supply and demand estimates.

Totals may not add due to rounding.

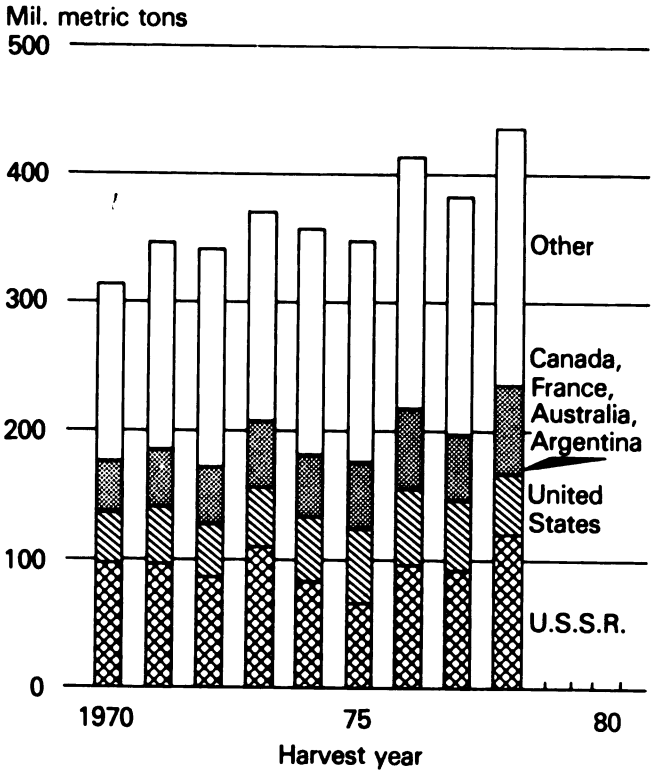
# WHEAT

Good weather and sharply higher yields contributed to record or near-record harvests in major wheat-producing areas in 1978. Of the countries listed below, only the United States had lower production compared with 1977. But the decline was largely the result of the set-aside program that took some 4 million hectares out of wheat. Average yields in the United States were the highest since 1972, due to the favorable weather that affected most major producing areas, as well as the removal of some marginal lands from production.

Worldwide, the harvested area remained about the same size as a year earlier—about 226 million hectares—but global yields attained a record 193 tons per hectare.

Chart 221

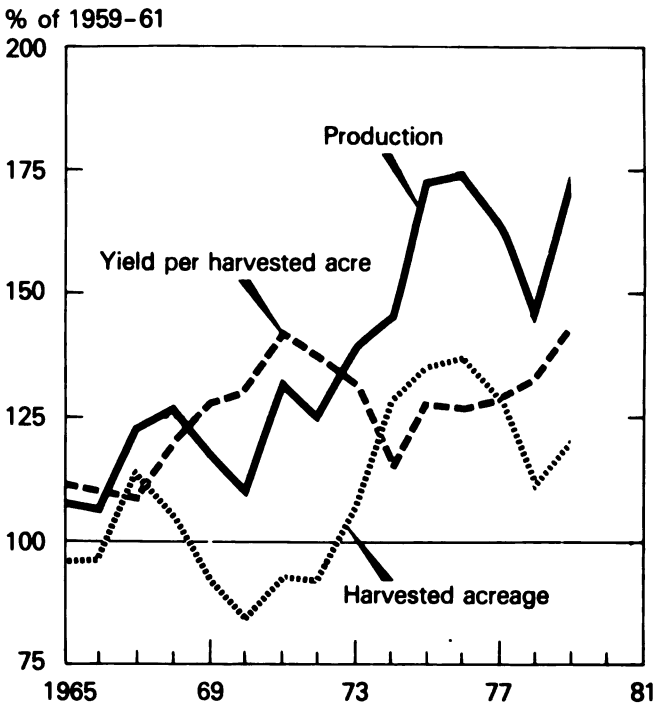
## Where the World's Wheat Is Grown




1978 preliminary.

Chart 222

## U.S. Wheat Acreage, Yield, and Production




1979 September indications.

**Where the World's Wheat is Grown**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million metric tons* | | | |
| Total production | 350.4 | 415.1 | 381.9 | 437.7 |
| By country: | | | | |
| USSR | 66.2 | 96.9 | 92.2 | 120.8 |
| United States | 57.8 | 58.3 | 55.4 | 49.0 |
| Canada | 17.1 | 23.6 | 19.9 | 21.1 |
| France | 15.0 | 16.1 | 17.4 | 21.1 |
| Argentina | 8.6 | 11.0 | 5.3 | 8.1 |
| Australia | 12.0 | 11.7 | 9.3 | 18.3 |

**Wheat Acreage, Yield, and Production**

| | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|
| Harvested acreage: | | | | |
| Million acres | 70.8 | 66.5 | 56.8 | 62.2 |
| Percentage of 1959-61 | 137 | 128 | 110 | 120 |
| Yield per harvested acre: | | | | |
| Bushels | 30.3 | 30.6 | 31.6 | 34.3 |
| Percentage of 1959-61 | 127 | 128 | 132 | 144 |
| Production: | | | | |
| Million bushels | 2,142 | 2,036 | 1,799 | 2,133 |
| Percentage of 1959-61 | 174 | 165 | 146 | 173 |

[1] Based on August indications.

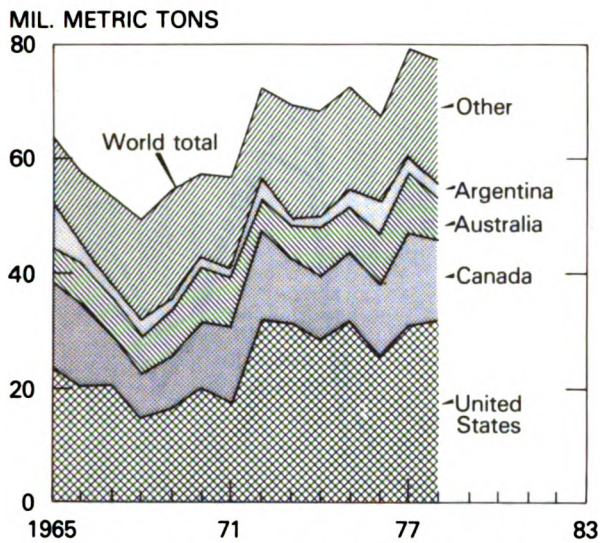
# WHEAT

Despite a record world wheat crop, trade in 1978 dropped only 2 percent from the 1977 record, thanks to steady expansion in demand throughout the 1977/78 marketing year. Logistical problems in Canada caused almost a 10-percent decline in wheat and flour exports in 1978, notwithstanding a near-record harvest. In Australia, a sharply reduced 1977 harvest curtailed exports—down 40 percent to a 5-year low. Among major U.S competitors, only Argentina shipped larger exports, an increase of 30 percent from 1977.

Exports from other countries remained high in 1978, with the European Community—primarily France—exporting record amounts of wheat by using large subsidies.

Chart 223

## Major Wheat and Flour Exporters




Year beginning July 1 includes wheat equivalent of flour and products. 1978 preliminary.

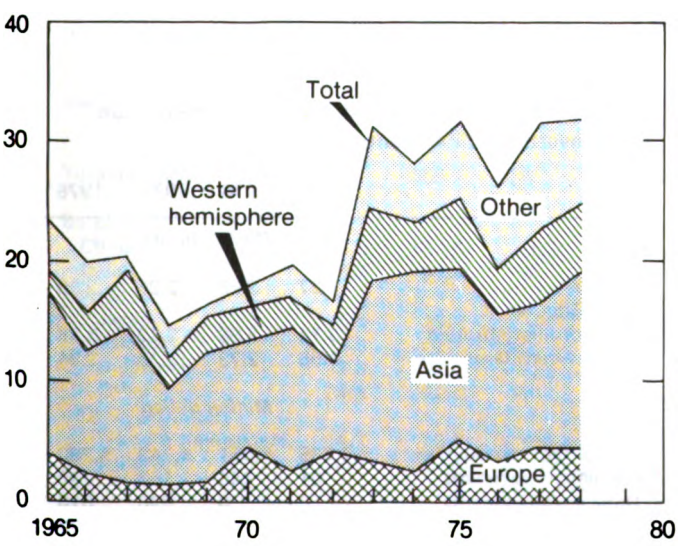
**Major Wheat and Flour Exporters[1]**

| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | *Million metric tons* | | | |
| Total exports | 73.0 | 68.2 | 79.1 | 77.2 |
| Originating country: | | | | |
| United States | 31.5 | 25.8 | 31.1 | 31.5 |
| Canada | 12.1 | 12.9 | 15.9 | 14.4 |
| Australia | 7.9 | 8.5 | 11.1 | 6.6 |
| Argentina | 3.2 | 5.6 | 2.6 | 3.4 |
| USSR | .5 | 1.0 | 1.0 | 1.5 |
| Other | 17.8 | 14.4 | 20.0 | 19.8 |

[1] Flour in terms of wheat equivalent. [2] Preliminary.

Chart 224

## U.S. Wheat and Flour Exports by Country




1978 preliminary.

**U.S. Wheat and Flour Exports by Destination[1]**

| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | *Million metric tons* | | | |
| Total exports | 31.5 | 25.8 | 31.1 | 31.5 |
| Receiving country: | | | | |
| Total Europe | 5.2 | 3.5 | 4.5 | 5.0 |
| EC-9 | 3.2 | 1.4 | 2.3 | 2.8 |
| Total Asia | 14.2 | 12.1 | 12.2 | 15.0 |
| Japan | 3.3 | 3.1 | 3.6 | 3.3 |
| Western Hemisphere | 5.8 | 3.7 | 6.2 | 6.2 |
| Other | 6.3 | 6.5 | 8.2 | 5.3 |

[1] Grain equivalent. [2] Preliminary.

# WHEAT

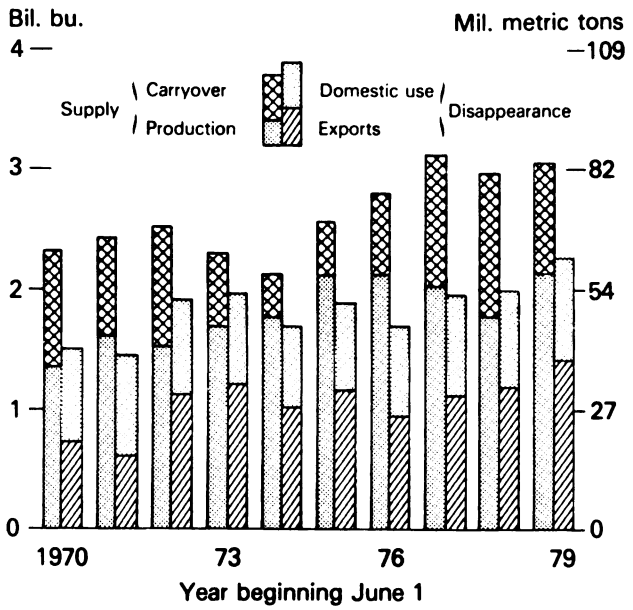
Producers upped their 1979 wheat plantings and good growing conditions produced record yields. The result was a bumper 1979 crop of 2.1 billion bushels, almost topping the previous record in 1976. This year's production will more than offset a reduction in carryover stocks.

While exports for the 1978/79 marketing year were the second heaviest on record, deteriorating world wheat production prospects point to a sharp increase in 1979/80 U.S. exports.

Prospects for reduced world wheat production, dwindling carryover stocks, and a likely expansion of U.S. export sales in 1979/80, have caused new crop wheat prices to advance nearly $1 per bushel above year-earlier levels.

Chart 225

## Wheat Supply and Disappearance




Supply includes imports. 1978 estimated. 1979 projected.

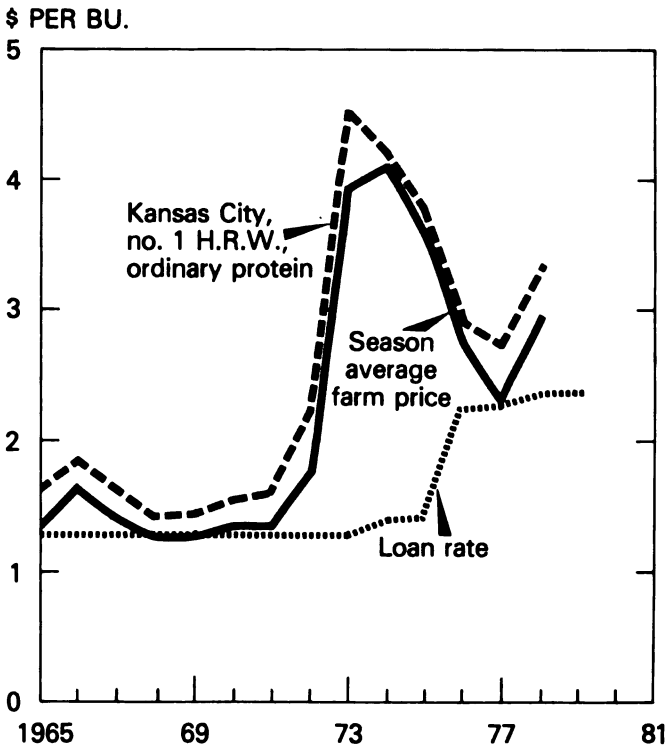
**Wheat Supply and Disappearance[1]**

| | 1976 | 1977 | 1978[2] | 1979[3] |
|---|---|---|---|---|
| | *Million bushels* | | | |
| Supply | 2,810 | 3,150 | 2,977 | 3,057 |
| Carryover | 665 | 1,112 | 1,177 | 922 |
| Production | 2,142 | 2,036 | 1,799 | 2,133 |
| Imports[4] | 3 | 2 | 1 | 2 |
| Disappearance | 1,698 | 1,973 | 2,055 | 2,265 |
| Domestic use | 748 | 849 | 861 | 865 |
| Food[5] | 588 | 586 | 591 | 595 |
| Seed | 92 | 80 | 87 | 95 |
| Feed[6] | 68 | 183 | 183 | 175 |
| Exports[4] | 950 | 1,124 | 1,194 | 1,400 |

[1] Year beginning June 1. [2] Preliminary. [3] Projected. [4] Imports and exports include flour and other products in wheat equivalents. [5] Used for food in the United States, U.S. territories, and by the military. [6] Residual; approximates feed use and includes negligible quantities used for distilled spirits and beer.

Chart 226

## Wheat Prices and Loan Rate




Year beginning June 1. 1977 and 1978 preliminary.

**Wheat Prices, Loan Rate, Value of Farm Production, And Government Payments[1]**

| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | *Dollars/bushel* | | | |
| Loan rate | 1.37 | 2.25 | 2.25 | 2.35 |
| Kansas City, No. 1 HRW ordinary protein | 3.74 | 2.88 | 2.72 | 3.38 |
| Season average farm price | 3.56 | 2.73 | 2.33 | 2.94 |
| | *Million dollars* | | | |
| Value of farm production | 7,535 | 5,851 | 4,743 | 5,280 |
| Government payments | 51 | 145 | 1,157 | 700 |
| Deficiency payments[3] | 0 | 0 | 996 | 610 |
| Crop disaster | 51 | 145 | 161 | 90 |
| Total crop values | 7,586 | 5,996 | 5,900 | 5,980 |

[1] Year beginning June 1. [2] Preliminary. [3] Payments under target price program when applicable.

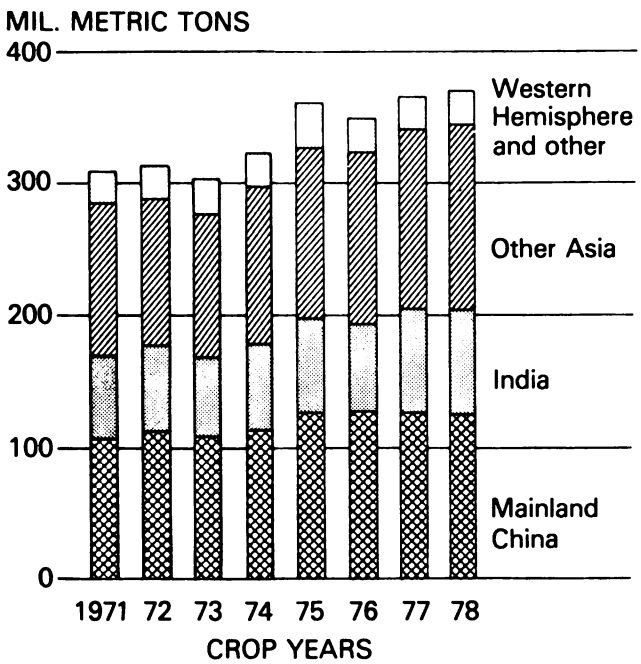
# RICE

World rice production set another record in 1978/79 for the second year in a row—1 percent over the previous year's level. About three-quarters of the increase is the result of higher rice production in Asia, where the greatest gain in outturn was in Indonesia, up 11 percent. Production in Pakistan was up 7 percent, while Indian production was only marginally higher than in 1977/78.

Rice output in the Western Hemisphere expanded by almost 7 percent to the highest level since 1975, with the bulk attributed to expanded rice production in the United States, a record 6.3 million tons. The United States is not a major rice-producing nation. It produces less than 2 percent of global rice output.

Chart 227

## Where World's Rice is Grown



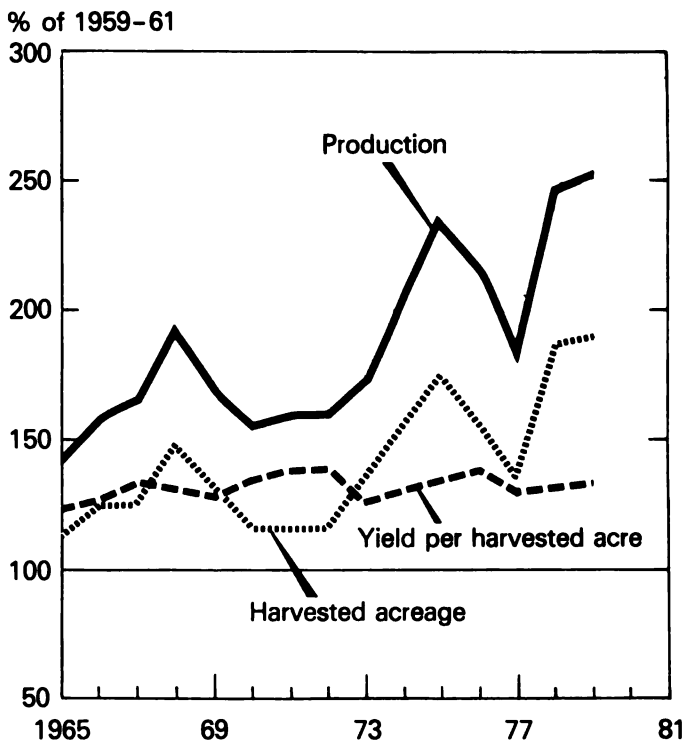

1977/78 preliminary. Figures are for rough rice.

**Major Rice Producers**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million metric tons* | | | |
| Total production | 360.1 | 350.0 | 367.2 | 371.4 |
| By country: | | | | |
| China | 126.5 | 127.5 | 126.5 | 125.5 |
| India | 73.2 | 62.9 | 79.1 | 79.2 |
| Asia: | | | | |
| Japan | 16.5 | 14.7 | 16.4 | 15.7 |
| Pakistan | 3.9 | 4.1 | 4.4 | 4.7 |
| Indonesia | 22.3 | 23.3 | 23.3 | 25.9 |
| Other | 84.6 | 92.5 | 93.1 | 94.9 |
| Other producers: | | | | |
| Western Hemisphere | 14.7 | 13.6 | 13.3 | 14.2 |
| All other | 18.4 | 11.4 | 11.1 | 11.3 |

Chart 228

## U.S. Rice Acreage, Yield, And Production




Does not include minor States. 1979 September indications.

**Rice Acreage, Yield, and Production[1]**

| | 1976 | 1977 | 1978[2] | 1978[3] |
|---|---|---|---|---|
| Harvested acreage: | | | | |
| Million acres | 2.5 | 2.2 | 3.0 | 3.0 |
| Percentage of 1959-61 | 156 | 141 | 187 | 190 |
| Yield per harvested acre: | | | | |
| Pounds | 4,663 | 4,412 | 4,493 | 4,532 |
| Percentage of 1959-61 | 137 | 130 | 132 | 133 |
| Production: | | | | |
| Million cwt. | 115.6 | 99.2 | 133.8 | 136.7 |
| Percentage of 1959-61 | 214 | 183 | 247 | 253 |

[1] Does not include minor States. [2] Preliminary. [3] Based on August indications.

# RICE

The emergence of a strong market for high-quality, long-grain milled and parboiled rice—especially in Africa and the Middle East—resulted in record U.S. rice exports.

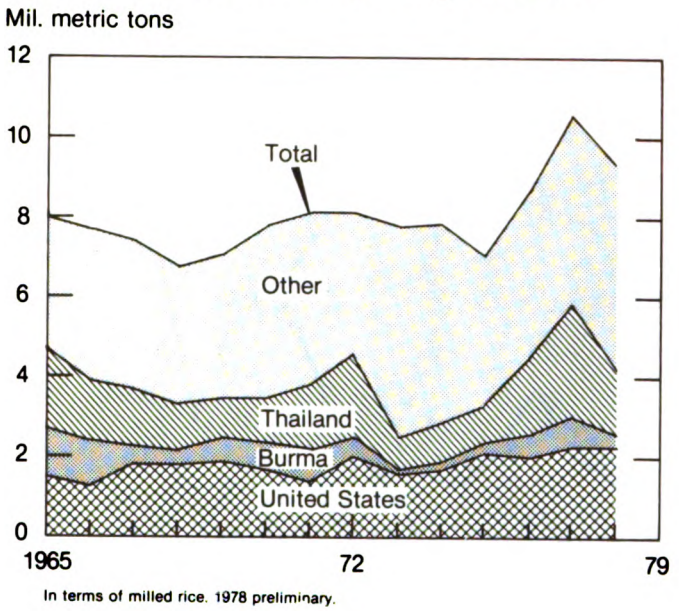
The unexpected entry into the world market by the Republic of Korea and Brazil as importers also changed the traditional picture of world rice trade.

India and Japan, which customarily are not exporters, played a larger role in 1978/79 rice export trade, with India increasing its shipments to Southeast Asia and Japan finding an outlet for part of its surplus rice in the Korean market.

---

Chart 229

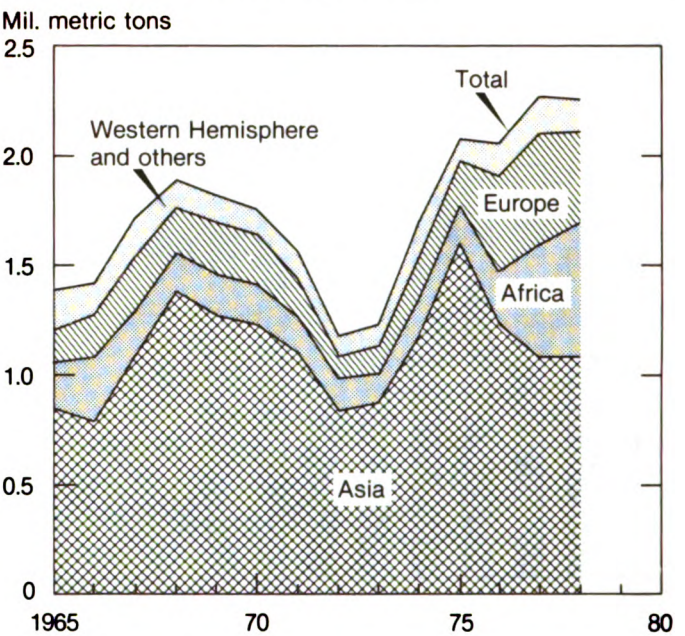
## World's Major Rice Exporting Countries




In terms of milled rice. 1978 preliminary.

Chart 230

## Where U.S. Rice Exports Go




In terms of milled rice. 1978 preliminary.

### World's Major Rice Exporting Countries[1]

| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | *Million metric tons* | | | |
| Total exports | 7.1 | 8.7 | 10.6 | 9.4 |
| Originating country: | | | | |
| United States | 2.1 | 2.0 | 2.3 | 2.3 |
| Burma | .3 | .6 | .7 | .3 |
| Thailand | .9 | 1.9 | 2.9 | 1.6 |
| Other | 3.8 | 4.2 | 4.7 | 5.2 |

[1] In terms of milled. [2] Preliminary.

### U.S. Rice Exports by Destination[1]

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Thousand metric tons* | | | |
| Total exports | 2,070.0 | 2,045.0 | 2,270.0 | 2,261.5 |
| By receiving country: | | | | |
| Asia | 1,600.0 | 1,225.7 | 1,081.3 | 1,072.0 |
| Africa | 167.8 | 237.3 | 516.2 | 619.8 |
| Europe | 205.3 | 441.4 | 502.4 | 418.7 |
| EC-9 | 152.2 | 253.0 | 297.7 | 318.1 |
| Western Hemisphere | 94.1 | 133.4 | 161.3 | 142.0 |
| Others | 2.8 | 7.2 | 8.8 | 9.0 |

[1] In terms of milled rice.

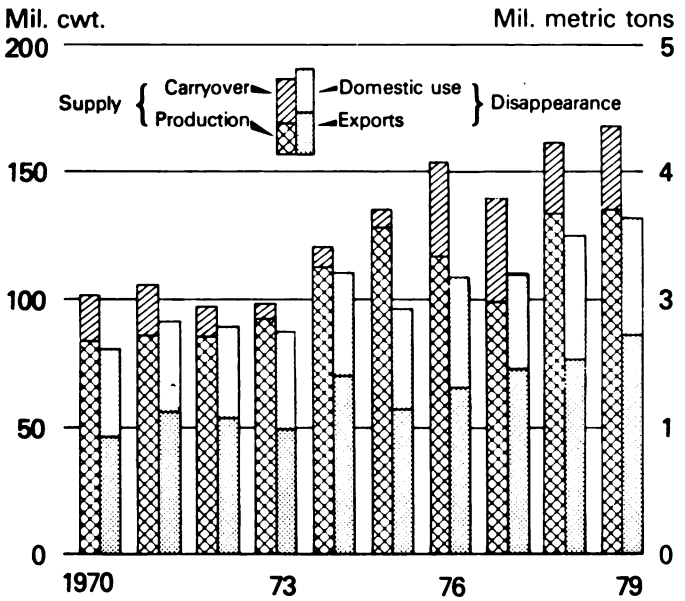
# RICE

Encouraged by favorable price levels last spring, rice growers planted more than 3 million acres to rice. Following an excellent growing season, the largest crop ever was harvested in 1979—135 million cwt. The combination of increased carrying stocks and the record crop produced a record 167 million cwt. rice supply for the 1979/80 season. Supported by higher domestic food use and another record export year, total disappearance is expected to reach a new high of 133 million cwt.—6 percent more than in 1978/79.

Record rice supplies kept 1978/79 prices below year-earlier levels, despite record levels for rice disappearance.

Chart 231

## Rough Rice Supply and Disappearance




Supply includes imports. 1978 estimated. 1979 projected.

**Rough Rice Supply and Disappearance[1]**

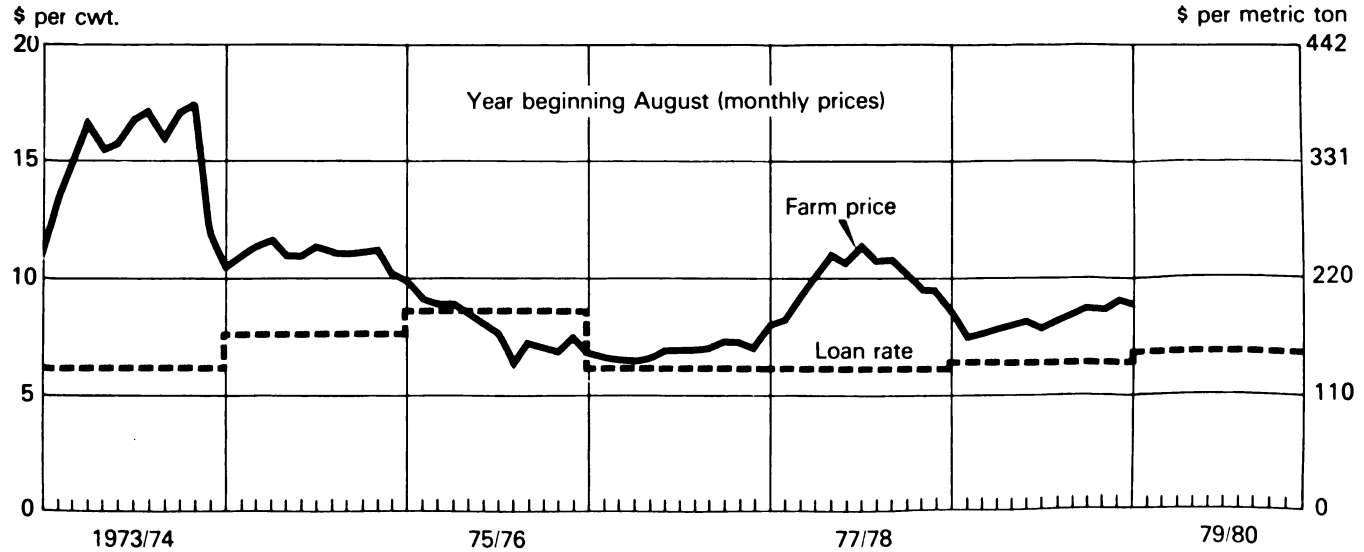
| | 1976 | 1977 | 1978[2] | 1979[3] |
|---|---|---|---|---|
| | *Million cwt.* | | | |
| Supply | 152.6 | 139.8 | 161.2 | 174.9 |
| Carryover | 36.9 | 40.5 | 27.4 | 38.2 |
| Farm production | 115.6 | 99.2 | 133.8 | 136.7 |
| Imports | .1 | .1 | .1 | --- |
| Disappearance | 108.3 | 110.5 | 123.0 | 132.0 |
| Domestic | 42.7 | 37.7 | 47.0 | 49.0 |
| Exports | 65.6 | 72.8 | 76.0 | 83.0 |
| Statistical discrepancies[4] | +3.8 | +1.9 | 0 | 0 |

[1] Data apply only to major rice-producing States. Milled rice converted to rough basis at annual extraction rate. [2] Preliminary. [3] Projected, based on August indications. [4] Results from loss, waste, the variation in conversion factors, and the lack of data on other uses.

--- = not available.

Chart 232

## Rough Rice Farm Price and Loan Rates



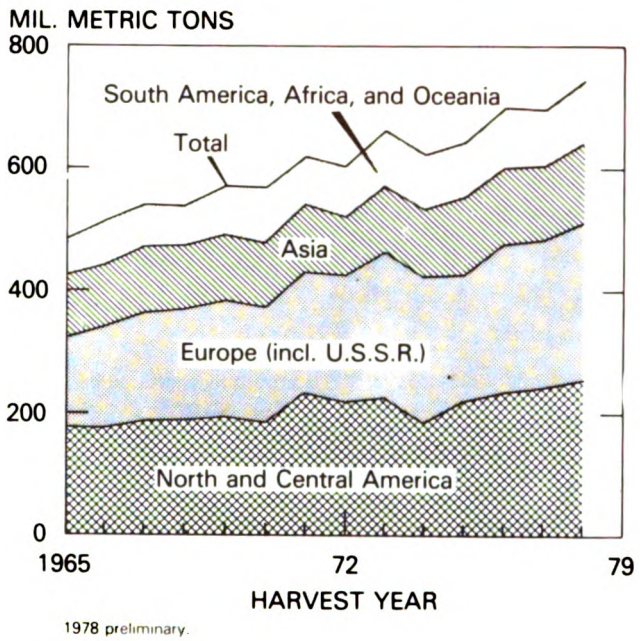
# FEED GRAINS

Favorable weather in most feedgrain-producing regions resulted in high yields and contributed to record world production in 1978. Three-fourths of the 1978 increase came from larger outturns in the United States, the USSR, and in Western Europe. U.S. production, which supplies about 85 percent of North and Central American production, increased for the fourth consecutive year—44 percent higher than the 151 million-ton harvest of 1974, when there was widespread crop failure.

Western Europe harvested a record 94 million tons, some 8 percent above the previous year's level, while production in the Soviet Union reached a near-record 105 million tons.

Chart 233

## World Coarse Grain Producing Areas




1978 preliminary.

**World Coarse Grain Producing Areas**

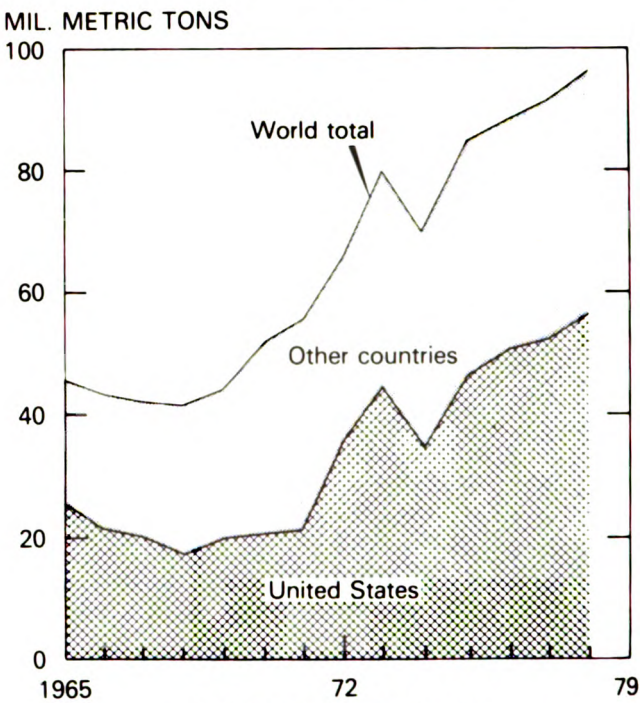
| | 1975 | 1976 | 1977 | 1978[1] |
|---|---|---|---|---|
| | *Million metric tons* | | | |
| Total production | 643.8 | 702.9 | 696.1 | 740.4 |
| By continent: | | | | |
| North and Central America | 221.1 | 230.9 | 241.8 | 254.1 |
| Europe (including USSR) | 206.7 | 247.6 | 239.2 | 259.6 |
| Asia | 128.2 | 127.6 | 125.6 | 132.2 |
| South America, Africa, and Oceania | 88.8 | 97.8 | 91.0 | 96.0 |

[1] Preliminary.

Details may not add to total because of independent rounding.

Chart 234

## World Exports of Coarse Grains




Includes cornmeal, oatmeal, barley malt and cornstarch. 1978 preliminary.

**World Exports of Coarse Grains**

| | 1975 | 1976 | 1977 | 1978[1] |
|---|---|---|---|---|
| | *Million metric tons* | | | |
| Total exports | 84.7 | 88.1 | 91.3 | 96.0 |
| United States | 46.3 | 50.6 | 52.1 | 56.2 |
| Other countries | 38.4 | 37.5 | 39.2 | 39.8 |

[1] Preliminary.

# FEED GRAINS

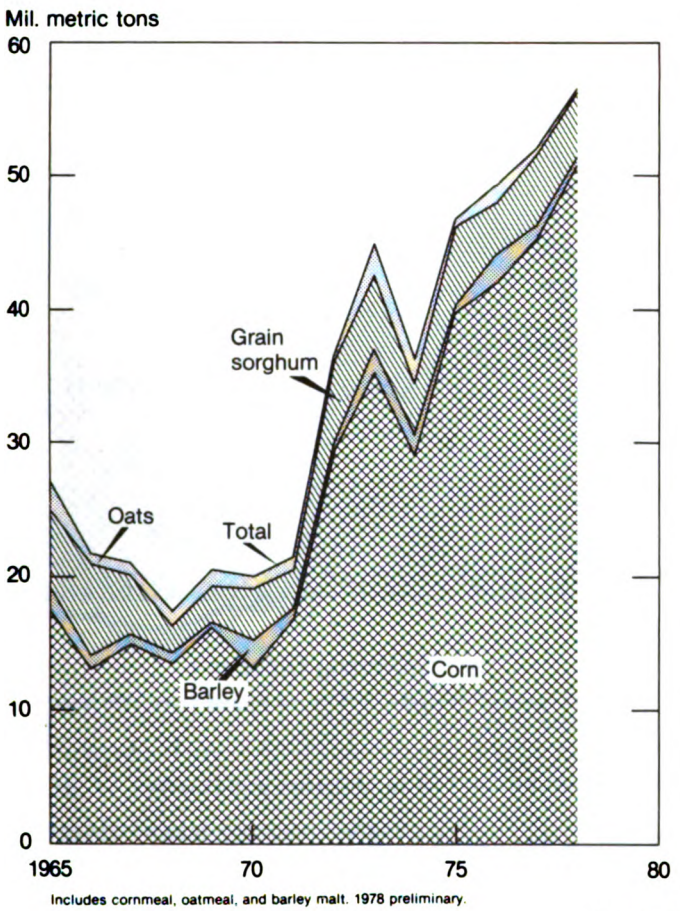
U.S. feedgrain exports posted another record in 1978, reflecting ccntinued strength in foreign import demand, despite record crop production abroad. Total U.S. feedgrain exports have steadily risen over the past 4 years. The United States remains the world's leading exporter of coarse grains, capturing approximately 62 percent of the world market.

Rapid growth in world utilization, as indicated by steadily rising import levels—particularly in Asia, and the Soviet Union—is largely responsible for the continued high level of U.S. coarse grain shipments. U.S. feedgrain exports to Asia have almost doubled in just 4 years, and with China making significant purchases in the world market for the first time in 5 years.

Chart 235

## U.S. Exports of Feed Grains

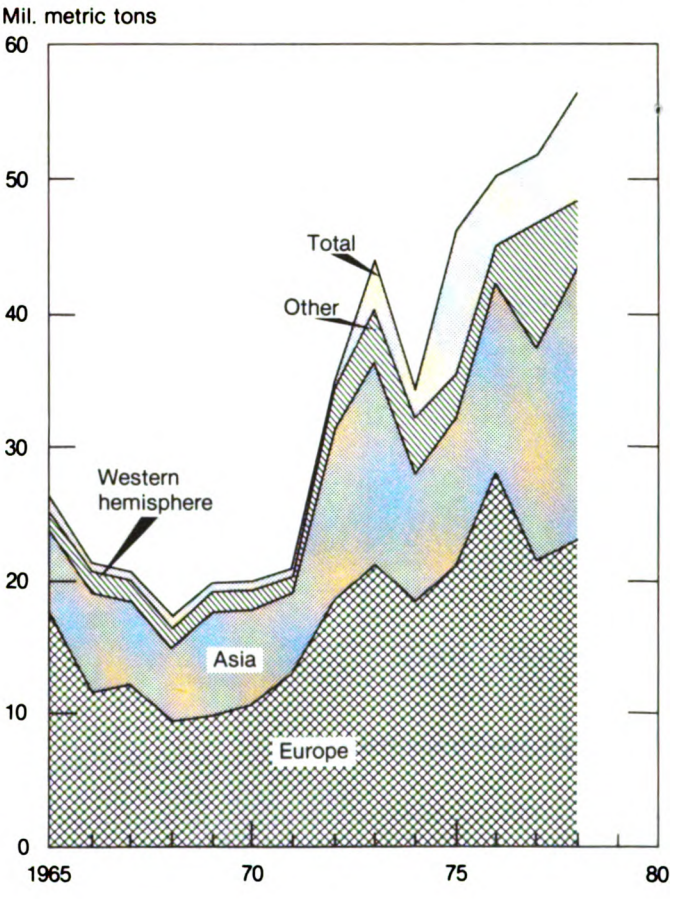
### By Commodity




Includes cornmeal, oatmeal, and barley malt. 1978 preliminary.

Chart 236

### By Destination




Year beginning July 1

**U.S. Exports of Feed Grains by Commodity**

| | 1975 | 1976 | 1977 | 1978[1] |
|---|---|---|---|---|
| | *Million metric tons* | | | |
| Total exports | 46.3 | 50.6 | 52.1 | 56.5 |
| Commodity: | | | | |
| Corn[2] | 39.6 | 42.3 | 45.1 | 50.9 |
| Barley[3] | .5 | 1.5 | 1.1 | .5 |
| Grain sorghum | 6.0 | 6.6 | 5.7 | 5.0 |
| Oats[4] | .2 | .1 | .1 | .1 |

[1] Preliminary. [2] Includes corn and cornmeal for relief, cornmeal, hominy and grits, and cornstarch. [3] Includes barley meal. [4] Includes oatmeal.
Details may not add to total because of independent rounding.

**U.S. Exports of Feed Grains by Destination[1]**

| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | *Million metric tons* | | | |
| Total exports | 46.3 | 50.6 | 52.1 | 56.5 |
| Receiving country: | | | | |
| Total Europe | 22.1 | 31.6 | 21.3 | 23.1 |
| EC-9 | 13.1 | 20.7 | 10.7 | 12.1 |
| Total Asia | 11.1 | 14.2 | 15.1 | 20.5 |
| Japan | 7.8 | 10.3 | 10.3 | 11.2 |
| Western Hemisphere | 3.1 | 3.3 | 4.1 | 5.0 |
| Other | 10.0 | 1.5 | 11.6 | 7.9 |

[1] Includes corn and cornmeal for relief and the following products: cornmeal, hominy, and grits, cornstarch, oatmeal, and barley meal. [2] Preliminary.

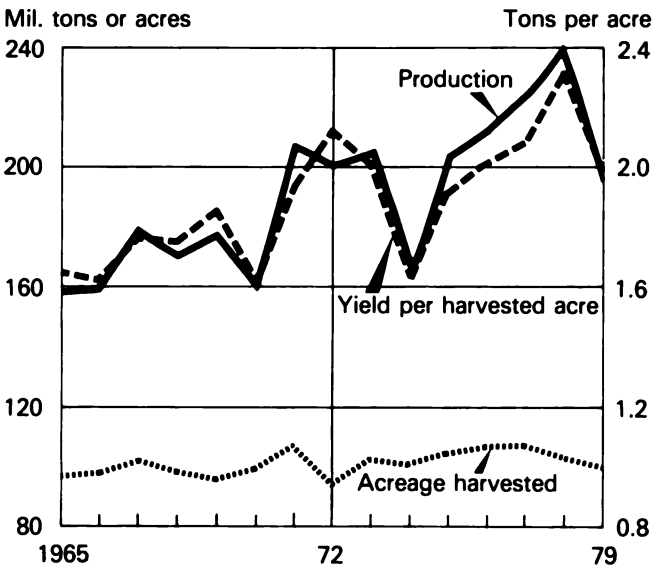
# FEED GRAINS

Feed grain acreage remained fairly level during the 1960's, while generally favorable weather, improved technology, and planting of only the most fertile land boosted both yields and production. But a series of production setbacks led to the lifting of Government controls on U.S. acreage. Voluntary set-asides were instituted for 1977/79, and weather was favorable. Yields and production were records in 1977 and 1978, and near records are in prospect for 1979.

Fewer beef cattle on feed, but more output of pork and record poultry meat production suggest that feeding of concentrates in 1979/80 will be moderately larger than in the year before. In the second half of the year, feeding expansion may moderate.

Chart 237

## Feed Grain Acreage, Yield, And Production




1979 based on August intentions.

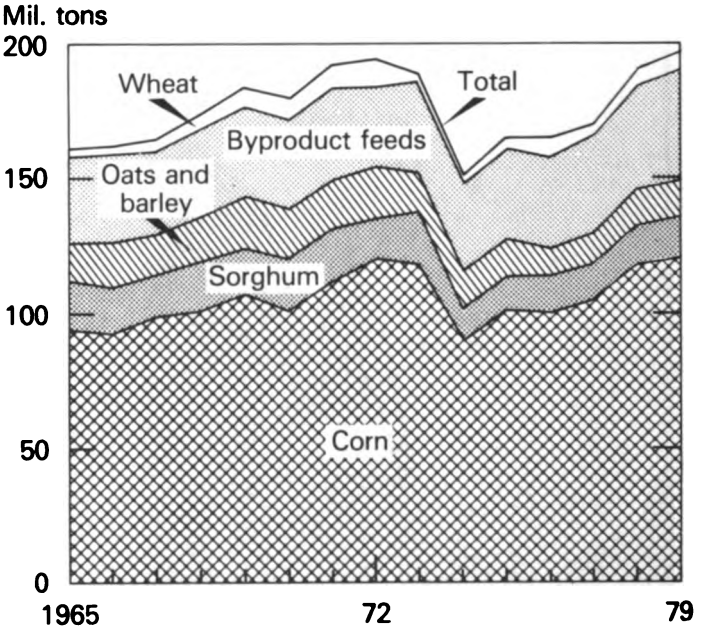
**Feed Grain Acreage and Production[1]**

| | 1976 | 1977 | 1978[2] | 1979[3] |
|---|---|---|---|---|
| | *Million acres* | | | |
| Acreage harvested for grain | 106 | 108 | 104 | 100 |
| | *Short tons* | | | |
| Yield per harvested acre | 2.01 | 2.07 | 2.31 | 2.38 |
| | *Million short tons* | | | |
| Production | 213 | 224 | 240 | 238 |

[1] Corn, grain sorghum, oats, and barley. [2] Preliminary. [3] Based on August indications.

Chart 238

## Feed Concentrates Fed




Feed fed to livestock and poultry. 1978 figures are preliminary; 1979 based on August indications.

**Feed Concentrates Fed to Livestock and Poultry[1]**

| | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|
| | *Million short tons* | | | |
| Total concentrates fed | 165.6 | 172.4 | 190.8 | 196.4 |
| Feed grains | 123.9 | 129.2 | 146.3 | 149.1 |
| Corn | 100.4 | 103.8 | 117.6 | 120.4 |
| Sorghum | 12.0 | 13.2 | 15.3 | 15.3 |
| Oats and barley | 11.5 | 12.2 | 13.4 | 13.4 |
| Wheat | 7.2 | 5.5 | 5.5 | 5.2 |
| Rye | .2 | .2 | .2 | .2 |
| By products[3] | 34.3 | 37.5 | 38.8 | 41.9 |
| | *Million* | | | |
| Grain-consuming animal units (GCAU) | 75.9 | 79.1 | 80.1 | 80.2 |
| | *Short tons* | | | |
| Concentrates fed per GCAU | 2.18 | 2.18 | 2.38 | 2.45 |

[1] Year beginning October 1. [2] Preliminary. [3] Oilseed meals, animal protein feeds, and mill by-products.

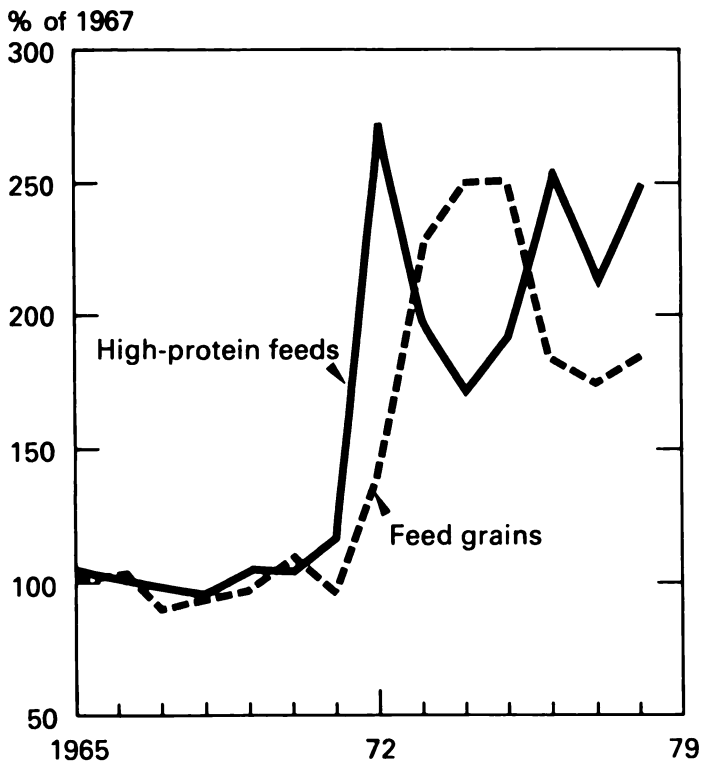
# FEED GRAINS

Large crops helped keep prices of feed grains and protein feed relatively stable during 1977/78, but prices strengthened in 1978/79. Protein feed prices remained high, compared with those of feed grains, as protein use surged to a record level because of expansion in production of hogs and broilers.

With larger supplies and good feeding margins, U.S. livestock and poultry producers fed a record volume of protein feed in 1978/79. Soybean meal accounted for most of the gain. Large supplies and continued heavy feeding indicate another year of large protein feed use in 1979/80, although the increase may be less than in 1978/79.

Chart 239

## Feed Grain and High-Protein Feed Prices




Prices for feed grains are those received by farmers. High-protein feed prices are wholesale at principal markets. 1978 preliminary. Year beginning October 1.

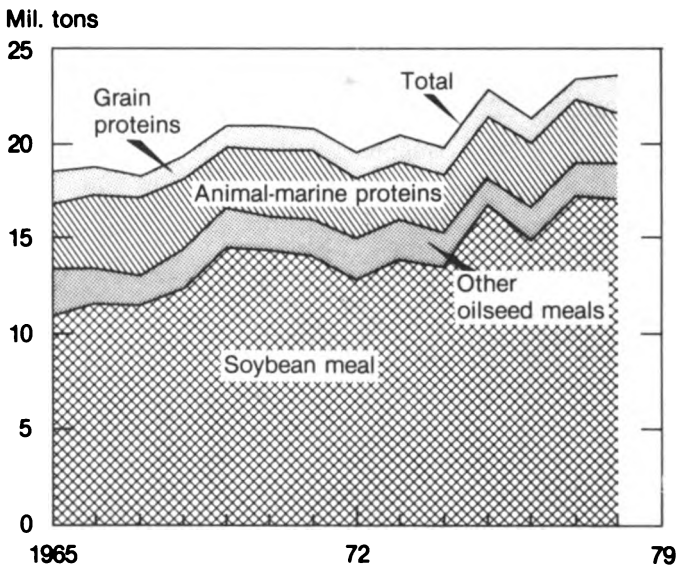
**Feed Grain and High-Protein Feed Prices**

| | 1975 | 1976 | 1977 | 1978[1] |
|---|---|---|---|---|
| | *Percentage of 1967* | | | |
| Feed grains[2] | 220 | 182 | 176 | 194 |
| High-protein feeds[3] | 193 | 252 | 213 | 248 |
| Oilseed meals[4] | 190 | 252 | 208 | 242 |
| Animal proteins[5] | 204 | 269 | 244 | 280 |
| Grain proteins[6] | 196 | 221 | 190 | 231 |

[1] Preliminary, October-August average. [2] Prices received by farmers for corn, oats, barley, and grain sorghum. [3] Wholesale prices of 11 principal high-protein feeds. [4] Wholesale prices of soybeans, cottonseed, linseed, copra, and peanut meal. [5] Wholesale prices of meat meal, tankage, and fishmeal. [6] Wholesale prices of gluten feed, gluten meal, and distillers' and brewers' dried grains.

Chart 240

## High-Protein Feed Use, Soybean Meal Equivalent




Grain proteins include gluten feed and meal; brewer and distiller dried grains. Animal-marine proteins include tankage, meat meal, marine by-products, and milk products. Other oilseed meals include cottonseed, linseed, peanut, and copra.

**High Protein Feed Use[1]**

| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | *Million short tons* | | | |
| Total use | 22.9 | 21.5 | 23.4 | 23.5 |
| Oilseed meal | 18.2 | 16.7 | 19.0 | 19.0 |
| Soybean meal | 16.8 | 14.9 | 17.2 | 17.1 |
| Cottonseed meal | 1.1 | 1.4 | 1.4 | 1.6 |
| Other[3] | .3 | .4 | .4 | .3 |
| Animal marine protein[4] | 3.2 | 3.4 | 3.3 | 2.6 |
| Grain protein[5] | 1.5 | 1.4 | 1.1 | 1.9 |

[1] Soybean meal equivalent. Year beginning October 1. [2] Preliminary. [3] Cottonseed, linseed, peanut, and copra meat. [4] Tankage-meat meal, fishmeal, and milk products. [5] Brewers' and distillers' dried grains and gluten feed and meal.

# FEED GRAINS

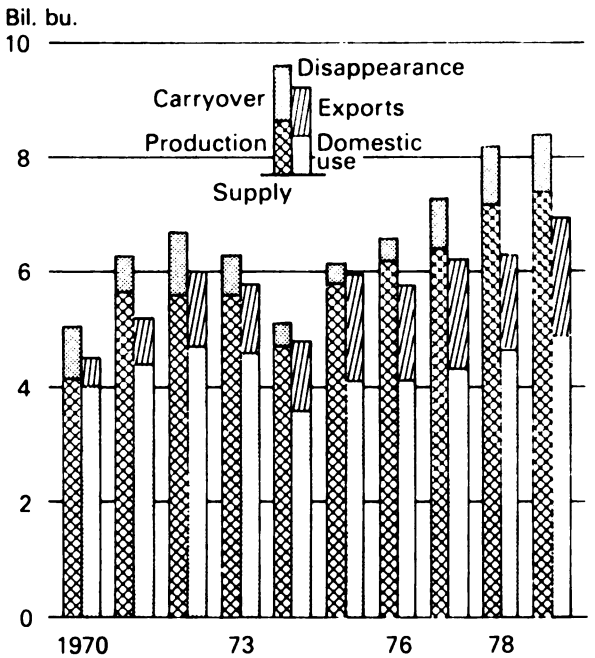
The 1979 corn crop in the United States is forecast to be a record for the fifth year in a row. The corn supply is also expected to post a record high for the 1979/80 marketing year. A moderate increase in domestic use and a sharp jump in exports, however, are likely to reduce carryover stocks moderately.

Because of shortfalls in grain production in some other countries, and stepped-up livestock feeding and sustained economic growth in many countries, U.S. corn exports will probably surpass the 1978/79 record by 15 percent.

Corn prices strengthened in 1978/79 and are expected to average higher in 1979/80.

Chart 241

## Corn Supply and Disappearance




Supply includes small volume of imports. 1978 preliminary. 1979 midpoint of projected ranges. 1979 forecast. Year beginning October 1.

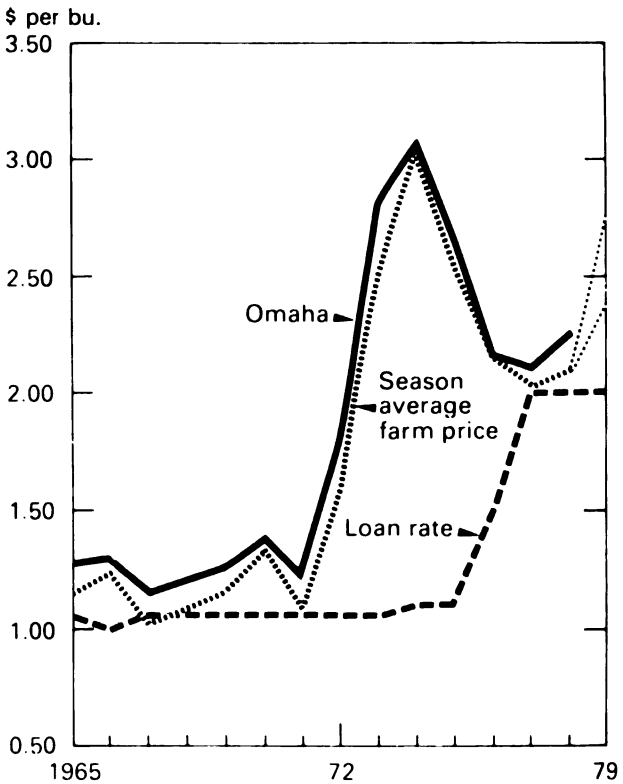
**Corn Supply and Disappearance[1]**

| | 1976 | 1977 | 1978[2] | 1979[3] |
|---|---|---|---|---|
| | *Million bushels* | | | |
| Supply | 6,668 | 7,312 | 8,187 | 8,347 |
| Production | 6,266 | 6,425 | 7,082 | 7,109 |
| Imports[4] | 3 | 3 | 1 | 1 |
| Carryover | 399 | 884 | 1,104 | 1,237 |
| Government[5] | 0 | 10 | 0 | 0 |
| "Free"[6] | 384 | 1,104 | 1,237 | 957 |
| Use | 5,784 | 6,208 | 6,950 | 7,390 |
| Domestic | 4,100 | 4,260 | 4,775 | 4,890 |
| Exports[3] | 1,685 | 1,948 | 2,175 | 2,500 |

[1] Year beginning October 1. [2] Preliminary. [3] Based on August indications. [4] Includes grain equivalent of products. [5] Uncommitted inventory. [6] Privately owned stocks; residual. Includes total government loans (original and reseal).

Chart 242

## Corn Prices




1978 preliminary. 1979 projections. Year beginning October 1.

**Corn Prices[1]**

| | 1976 | 1977 | 1978[2] | 1978[3] |
|---|---|---|---|---|
| | *Dollars/bushel* | | | |
| National average loan rate | 1.50 | 2.00 | 2.00 | 2.00 |
| Prices: | | | | |
| Omaha, #2 yellow | 2.15 | 2.08 | [4]2.27 | --- |
| Season average farm price | 2.15 | 2.02 | 2.20 | 2.40-2.75 |

[1] Year beginning October 1. [2] Preliminary. [3] Projected. [4] October-August average.

--- = not available.

# GRAIN TRANSPORTATION

Since 1970, annual shipments of grain by barge have increased more than 970 million bushels. Some of the increase can be attributed to a shift from railroads, brought about by increases in rail rates in the 1970's.

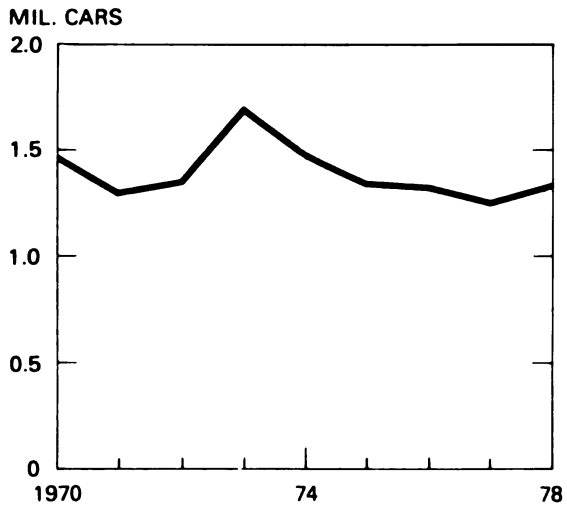
Railcar loadings of grain—subject to volatile fluctuations in grain marketing—reached a peak in 1973, chiefly because of a surge in export demand.

Since then, grain loadings have trended downward as a result of increased rail rates and strong truck and barge competition.

The actual decrease in quantity carried is less than it may seem, for increasingly more grain is being loaded into 100-ton hopper cars, as the older, smaller boxcars are retired.

Chart 243

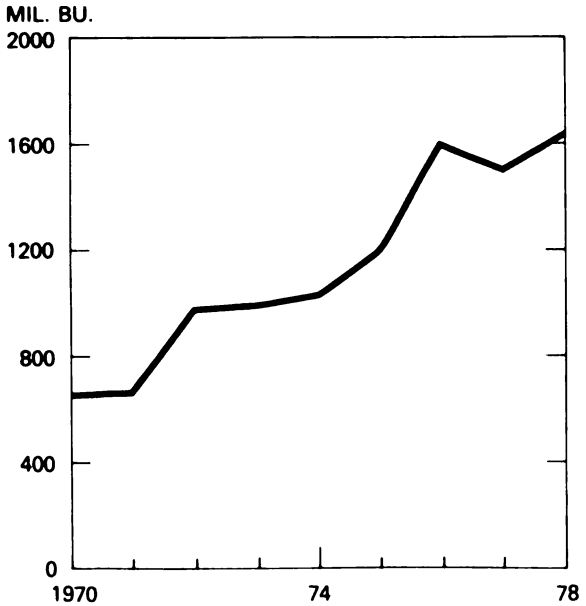
## Carloads of Grain Shipped by Rail




Source: Association of American Railroads, Car Service Division.

Chart 244

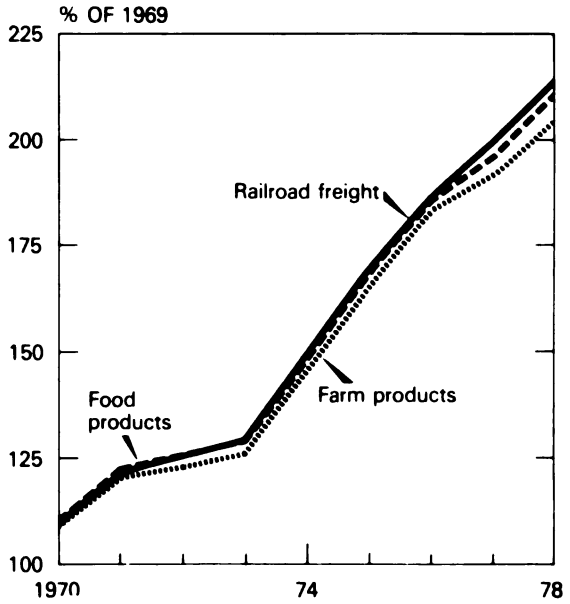
## Barge Shipments of Grain, Interior River Points




Source: AMS, Grain Market News.

Chart 245

## Change in Rail Freight Rates For Agricultural Products




Source: Bureau of Labor Statistics.

**Rail and Barge Transportation of Grains**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | | *Million bushels* | | |
| Barge shipments of grains[1] | 1,195 | 1,612 | 1,522 | 1,629 |
| | | *Thousands* | | |
| Railcar loadings of grains | 1,338 | 1,323 | 1,250 | 1,341 |
| | | *Percent of 1969* | | |
| Price index for total railroad freight | 169.4 | 186.6 | 199.1 | 213.1 |
| Farm products | 165.0 | 182.7 | 191.3 | 204.9 |
| Food products | 168.5 | 185.1 | 195.3 | 210.0 |

[1] Interior river points.

Sources: Barge shipments, *Grain Market News*, Agricultural Marketing Service; railcar loadings, Association of American Railroads; and railroad freight prices, Bureau of Labor Statistics.

# FATS AND OILS

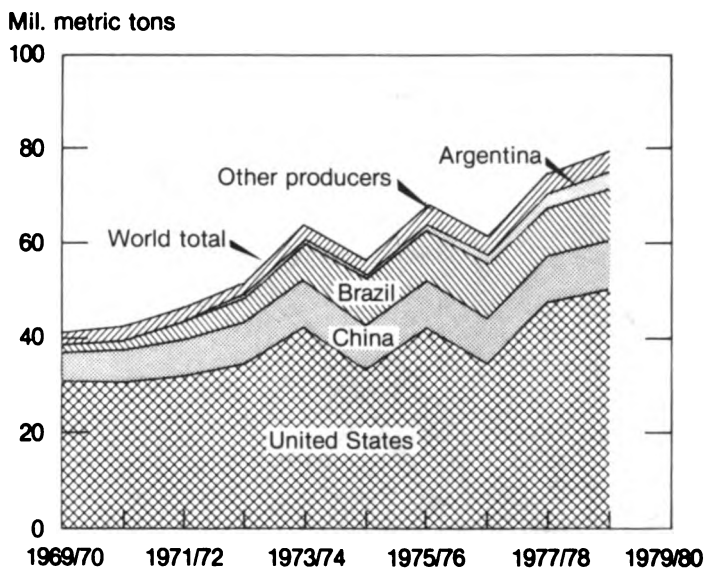
World soybean production nearly doubled in 1969/70-1978/79, a period when the United States dominated the world production picture.

However, the U.S. share of world production has declined from 75 percent in 1969/70 to 63 percent in 1978/79 because of the rapid growth in soybean production in Brazil and Argentina.

The production in Brazil and Argentina increased from 4 percent of world soybean production in 1969/70 to an estimated 18 percent in 1978/79.

Chart 246

## Where the World's Soybeans are Grown




Soybean production split year includes Northern Hemisphere crops harvested in the late months of the first year shown combined with Southern Hemisphere and certain Northern Hemisphere crops harvested in the early months of the following year. 1978 estimated.

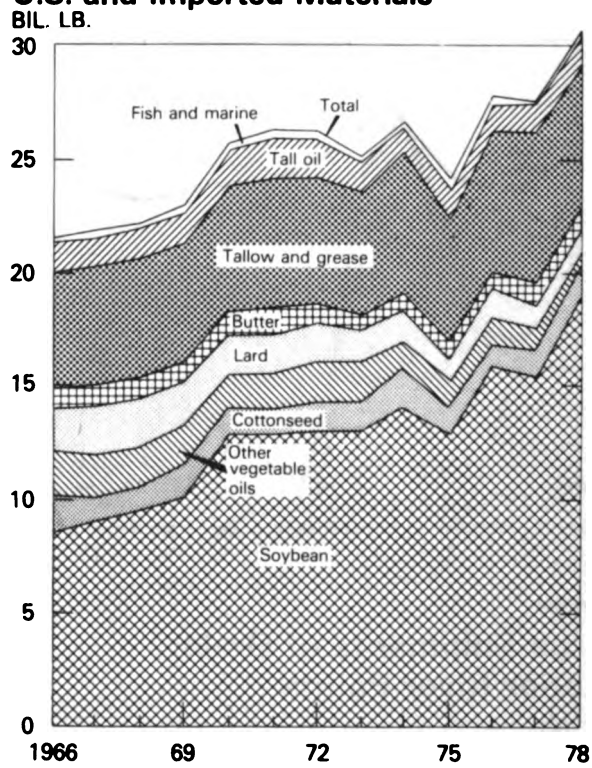
### Where the World's Soybeans are Grown[1]

| | 1975/76 | 1976/77 | 1977/78 | 1978/79[2] |
|---|---|---|---|---|
| | *Million metric tons* | | | |
| World total | 68.0 | 61.3 | 74.3 | 79.8 |
| United States | 42.1 | 35.0 | 47.9 | 50.1 |
| Brazil | 10.8 | 12.2 | 10.0 | 11.0 |
| China | 10.0 | 9.0 | 9.5 | 10.5 |
| Argentina | 0.7 | 1.4 | 2.7 | 3.5 |

[1] Split years include northern hemisphere crops harvested in the late months of the first year shown combined with the southern hemisphere and certain northern hemisphere crops harvested in the early months of the following year. [2] Estimated.

Chart 247

## Fats and Oils Produced from U.S. and Imported Materials




Production equals the oil equivalent of exported U S oilseeds. Tallow and grease include both edible and inedible oils Butter based on fat content. Other includes corn, olive, peanut, safflower, coconut, castor, linseed, and tung oils.

### Fats and Oils Produced from U.S. and Imported Materials[1]

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Billion pounds* | | | |
| Total fats and oils | 23.5 | 27.8 | 27.5 | 30.6 |
| Soybean | 12.9 | 15.8 | 15.4 | 9.0 |
| Cottonseed | 1.2 | 1.0 | 1.2 | 1.4 |
| Other vegetable oils[2] | 1.2 | 1.4 | 1.0 | .5 |
| Lard | 1.0 | 1.0 | 1.0 | 1.0 |
| Butter[3] | .8 | .9 | 1.0 | 1.0 |
| Tallow and grease[4] | 5.3 | 6.3 | 6.6 | 6.2 |
| Tall oil | 1.0 | 1.2 | 1.2 | 1.3 |
| Fish and marine | .2 | .2 | .1 | .2 |

[1] From domestic and imported materials. Includes oil equivalent of exported domestic oilseeds. [2] Includes corn, olive, peanut, safflower, coconut, castor, linseed, and tung oils. [3] Fat content. [4] Both edible and inedible kinds.

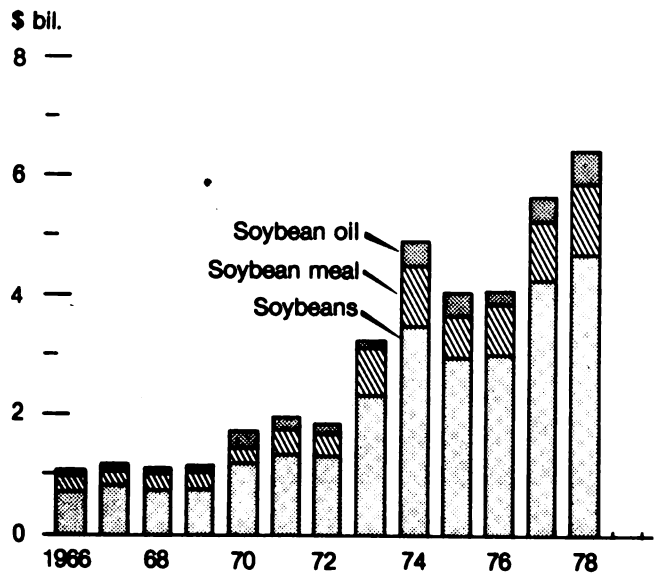
# FATS AND OILS

U.S. soybean exports hit a record 19.1 million tons in 1977/78. The No. 1 customer was the European Community, which took 8.6 million tons, or 45 percent of total U.S. soybean exports. The second largest buyer was Japan at 3.6 million tons, or 19 percent, and third largest was Spain, which took 1.6 million tons, or 8 percent of U.S. soybean exports.

In 1978/79, U.S. soybean shipments topped 21 million tons, based on preliminary data. Soybean meal and oil exports also set a record in 1977/78, and 1978/79 saw further gains. The value of U.S. exports of soybeans and products reached a record $6.4 billion in fiscal 1978, $7.5 billion in 1979.

Chart 248

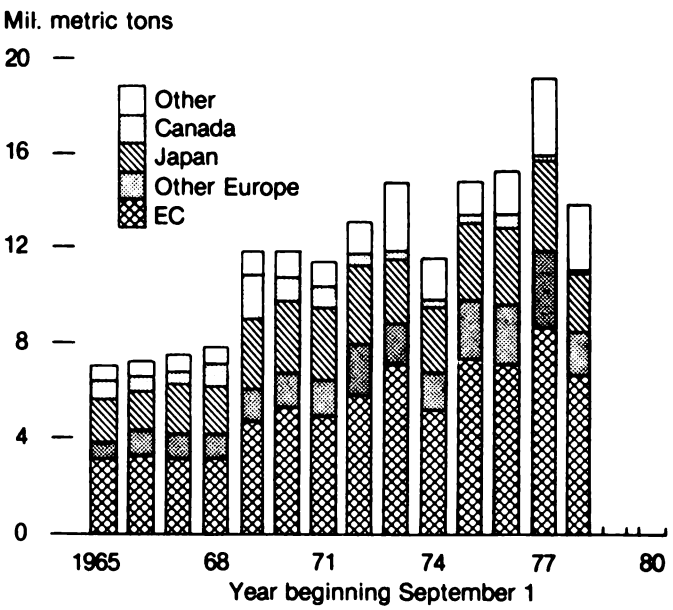
## Value of U.S. Exports of Soybeans And Products




Fiscal year beginning October 1.

Chart 249

## What Countries Take U.S. Soybean Exports




1978 September-March.

**U.S. Exports of Soybeans and Products[1]**

| | 1975/76 | 1976/77 | 1977/78 | 1978/79 |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Total | 4,052.0 | 5,637.6 | 6,410.9 | 4,486.9 |
| Soybeans | 3,038.3 | 4,306.6 | 4,749.0 | 3,376.5 |
| Soybean meal | 806.1 | 917.9 | 1,121.1 | 764.1 |
| Soybean oil | 207.6 | 413.1 | 540.8 | 346.3 |

[1] October-September, except 1978/79, which is Octobar-March.

Totals computed from unrounded numbers.

**U.S. Exports of Soybeans by Destination**

| | 1975 | 1976 | 1977 | 1978[1] |
|---|---|---|---|---|
| | *Million metric tons* | | | |
| Total exports | 15.1 | 15.4 | 19.1 | 13.9 |
| Europe: | | | | |
| EC | 7.2 | 7.0 | 8.6 | 6.6 |
| Other | 2.4 | 2.5 | 3.3 | 1.8 |
| Japan | 3.2 | 3.2 | 3.6 | 2.4 |
| Canada | .4 | .5 | .3 | .2 |
| Other | 1.9 | 2.2 | 3.3 | 2.9 |

[1] September-March.

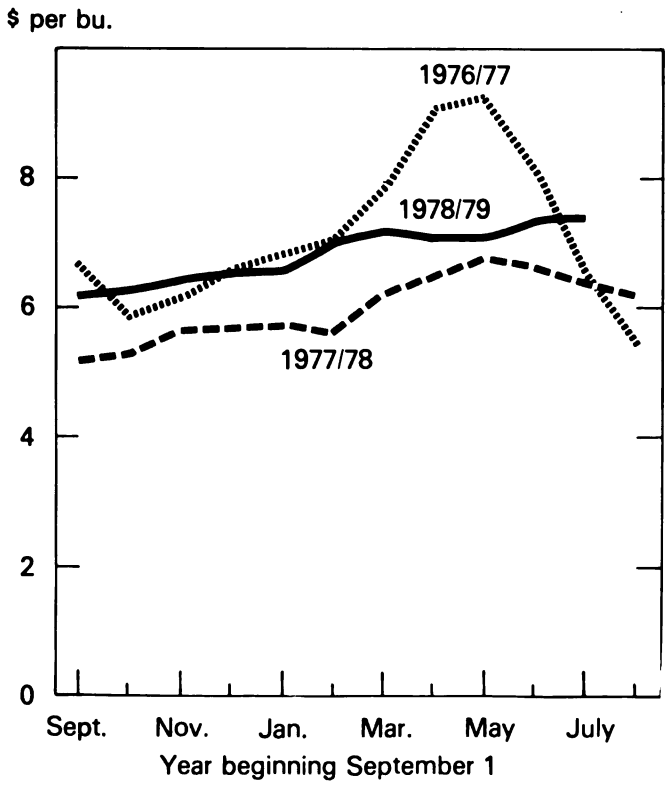
# FATS AND OILS

Soybean production in 1979 pierced the 2-billion-bushels barrier, about a fifth above last year's production and double the level of 12 years ago. Although utilization in 1979-80 is expected to expand, the increase possibly might not match the jump in output. Consequently, a sizable buildup in carryover stocks is expected. Traditionally, total disappearance has closely paralleled production, leaving carryover stocks at low levels for most years.

Farm prices for soybeans rose during 1978/79 from a seasonal low during harvest to a peak last summer. The strong price pattern was due to heavy domestic and export demand for soybeans and soybean products, coupled with reduced soybean production in South America.

Chart 250

## Farm Prices for Soybeans




Average prices received by farmers.

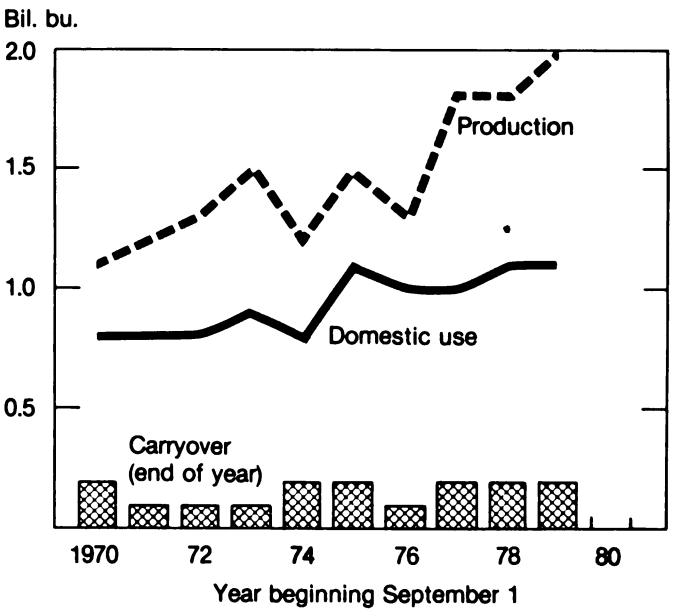
**Farm Prices for Soybeans[1]**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Dollars/bushel* | | | |
| September | 5.32 | 6.65 | 5.17 | 6.19 |
| October | 4.92 | 5.90 | 5.28 | 6.26 |
| November | 4.45 | 6.11 | 5.61 | 6.39 |
| December | 4.28 | 6.56 | 5.69 | 6.49 |
| January | 4.46 | 6.81 | 5.75 | 6.58 |
| February | 4.50 | 7.06 | 5.53 | 6.99 |
| March | 4.46 | 7.83 | 6.20 | 7.15 |
| April | 4.52 | 9.05 | 6.49 | 7.06 |
| May | 4.87 | 9.24 | 6.77 | 7.06 |
| June | 6.16 | 8.13 | 6.69 | 7.38 |
| July | 6.73 | 6.52 | 6.39 | -- |
| August | 6.07 | 5.48 | 6.21 | -- |
| Season average | 4.92 | 7.11 | 5.98 | -- |

[1] Average prices received by farmers, weighted by monthly sales.

Chart 251

## Soybean Production, Use, and Carryover




Total use includes crushings, exports, seed, feed, and residual.

**Soybean Production, Use, and Carryover[1]**

| | 1976 | 1977 | 1978[2] | 1979[3] |
|---|---|---|---|---|
| | *Million bushels* | | | |
| Supply | 1,533 | 1,865 | 2,004 | 2,185 |
| Production | 1,288 | 1,762 | 1,843 | 2,035 |
| Stocks, September 1 | 245 | 103 | 161 | 150 |
| Disappearance | 1,438 | 1,704 | 1,854 | 1,950 |
| Domestic | 866 | 1,004 | 1,084 | 1,150 |
| Crushings | 790 | 927 | 1,020 | 1,065 |
| Seed | 62 | 69 | 75 | 75 |
| Residual[4] | 14 | 8 | -11 | 10 |
| Exports | 564 | 700 | 770 | 800 |

[1] Year beginning September 1. [2] Preliminary. [3] June 1 indication. [4] Includes uses for feed, direct use for food, and loss.

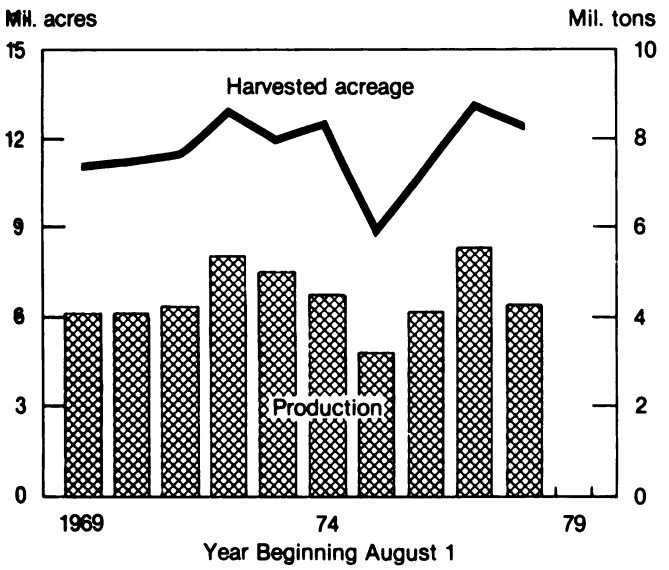
# FATS AND OILS

Cottonseed production in 1979 is estimated at 5.4 million short tons, about one-fourth above levels of the previous year. Larger harvested acreage for cotton and improved cottonseed yields per acre account for the increase. Cottonseed production fluctuates considerably, depending on harvested acreage and yields per acre. Harvested acreage in 1979 was one of the largest in about 15 years, reflecting farmers' decisions to increase cotton output as a result of higher cotton prices.

Peanut production in 1979 is estimated at a record 4.1 billion pounds, about 2 percent above last year's output. Record yields per acre account for almost all the increase, as harvested acreage is little changed from 1978.

Chart 252

## Cottonseed Acreage and Production




**Cottonseed Acreage, Supply, and Disappearance[1]**

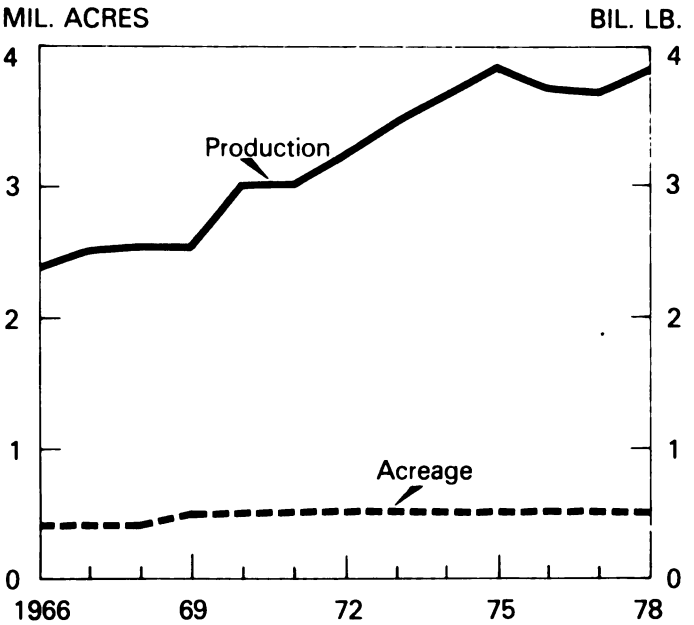
| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | | *Million acres* | | |
| Harvested acreage | 8.8 | 10.9 | 13.3 | 12.4 |
| | | *Pounds* | | |
| Yield per acre | 732 | 755 | 832 | 690 |
| | | *Thousand tons* | | |
| Supply | 3,727 | 4,324 | 5,804 | 5,085 |
| Production | 3,218 | 4,122 | 5,521 | 4,269 |
| Stocks of mills, August 1 | 554 | 202 | 283 | 816 |
| Disappearance | 3,570 | 4,041 | 4,988 | 4,685 |
| Domestic | 3,509 | 4,015 | 4,947 | 4,665 |
| Exports | 61 | 26 | 41 | 20 |

[1] Year beginning August 1. [2] Preliminary.

Data published currently in *Fats and Oils Situation* (ESCS).

Chart 253

## Peanut Acreage and Production




Production, farmers' stock basis. Acreage, harvested for nuts.

**Peanut Acreage, Production, and Disappearance**

| | 1976 | 1977 | 1978[1] | 1979[2] |
|---|---|---|---|---|
| | | *Thousand acres* | | |
| Acreage: | | | | |
| Planted | 1,549 | 1,545 | 1,544 | 1,546 |
| Harvested for nuts | 1,522 | 1,516 | 1,512 | 1,526 |
| | | *Pounds* | | |
| Total production[3] | 3,751 | 3,726 | 3,988 | 4,000 |
| Yield per harvested acre | 2,465 | 2,457 | 2,639 | 2,650 |
| | | *Million pounds* | | |
| Domestic disappearance: | | | | |
| For edible purposes | 1,800 | 1,825 | 1,875 | 1,950 |
| Crushings | 1,108 | 487 | 550 | 800 |

[1] Preliminary. [2] August 1 indication. [3] Farmers' stock basis.

Data published currently in *Fats and Oils Situation* (ESCS).

# FATS AND OILS

Sunflowerseed has been called the new wonder crop for the United States. Since the early 1970's, both production and exports have skyrocketed. Production has increased from 353,000 tons in 1973/74 to 1.8 million tons in 1978/79.

The rise in U.S. exports of sunflowerseed has been even more dramatic. The U.S. share of the world sunflowerseed export market has risen from 2 percent in 1971 to 87 percent in 1977, making it the world's largest sunflowerseed exporter. The uptrend in both output and exports is expected to continue.

World production of sunflowerseed declined to 12.3 million tons in 1978/79, compared with 12.7 million tons in 1977/78.

Chart 254

**World Production of Sunflowerseed**

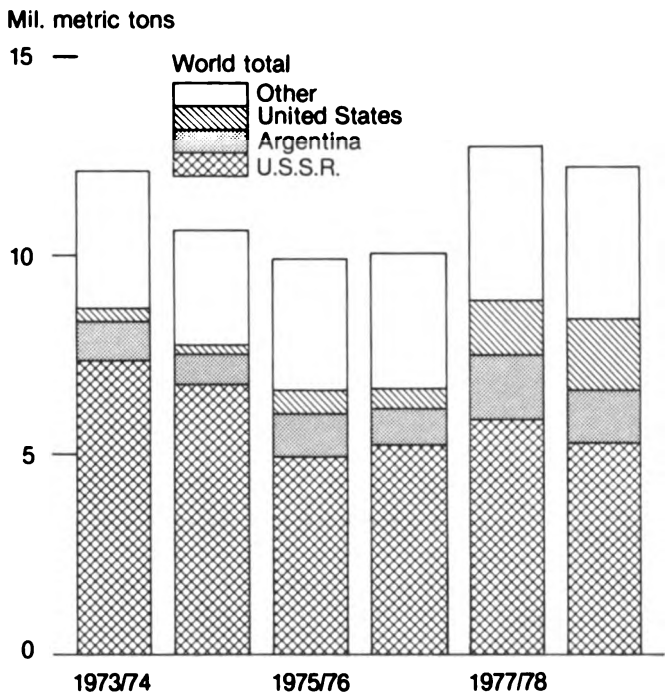



Chart 255

**World and U.S. Exports of Sunflowerseed**

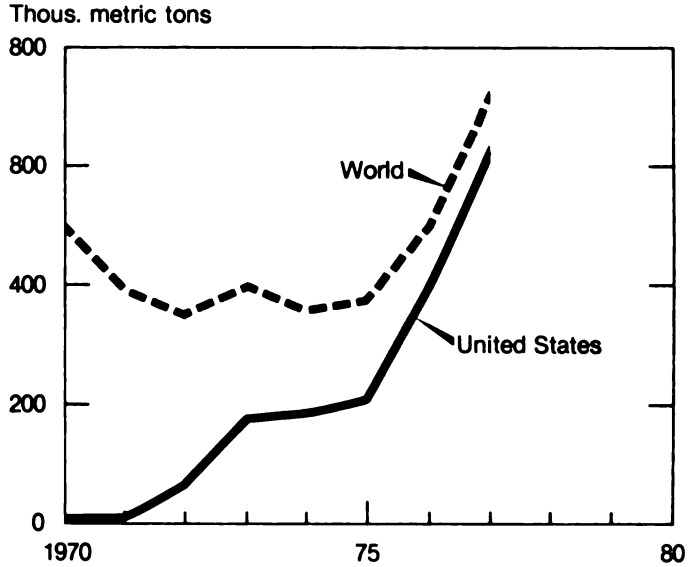
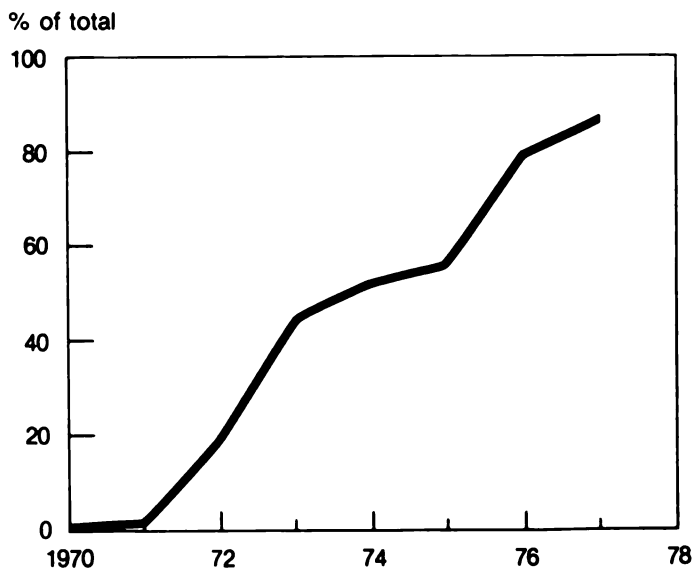



Chart 256

**U.S. Share of World Exports of Sunflowerseed**




**World Sunflowerseed Production by Major Producers**

| | 1975/76 | 1976/77 | 1977/78 | 1978/79 |
|---|---|---|---|---|
| | *Thousand metric tons* | | | |
| Total production | 9,911 | 10,062 | 12,717 | 12,260 |
| By country: | | | | |
| Turkey | 488 | 505 | 455 | 400 |
| Spain | 416 | 312 | 388 | 460 |
| Yugoslavia | 272 | 319 | 479 | 539 |
| Romania | 728 | 799 | 807 | 815 |
| Argentina | 1,085 | 900 | 1,600 | 1,300 |
| United States | 541 | 463 | 1,340 | 1,800 |
| Soviet Union | 4,990 | 5,277 | 5,904 | 5,310 |
| Other | 1,391 | 1,487 | 1,744 | 1,226 |

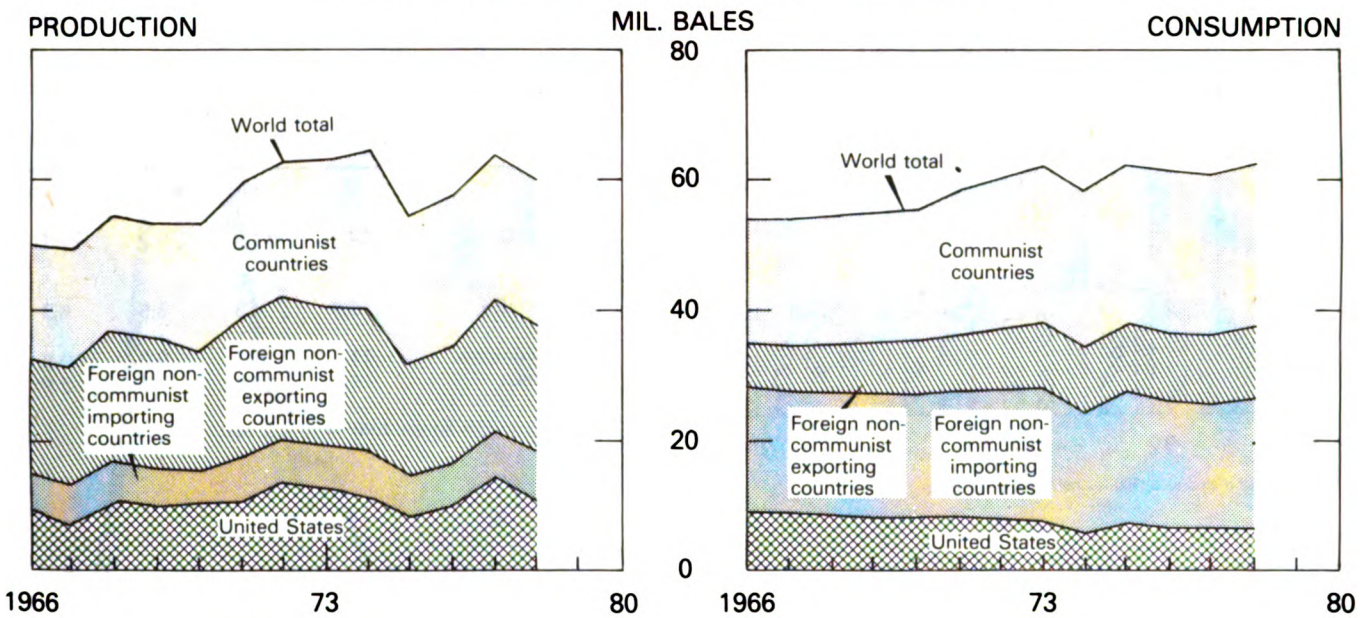
# FIBERS

World cotton production trended up through 1974/75, when it peaked at 64.3 million bales. Cotton stocks grew and prices fell, resulting in a production decline to 10 million bales in 1975/76. After recovering to 63.9 million bales in 1977/78, world production is expected to drop to 59.9 million bales in 1978/79 as prices have decreased and several producing countries have experienced unfavorable growing conditions.

Demand increased steadily through 1973/74, but over the last 3 years consumption has fluctuated around 61 million bales because of slow world economic growth. Also, competition from synthetics—both the raw input and finished products—has become keener.

Chart 257

## Where World's Cotton is Grown and Used




Year beginning August 1. 1977 preliminary. 1978 estimated.
A bale is .217 metric tons (480 pounds) net.

**Where the World's Cotton is Grown and Used**

| | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977[2] | 1978[3] |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | *Million bales*[4] | | | | |
| Total Production | 53.7 | 59.7 | 62.9 | 63.3 | 64.3 | 54.0 | 57.4 | 63.9 | 59.9 |
| By country: | | | | | | | | | |
| United States | 10.2 | 10.5 | 13.7 | 13.0 | 11.5 | 8.3 | 10.6 | 14.4 | 10.9 |
| Foreign noncommunist: | | | | | | | | | |
| Net importing | 5.3 | 6.9 | 6.4 | 6.7 | 7.3 | 6.3 | 6.0 | 6.9 | 7.4 |
| Net exporting | 18.2 | 21.2 | 21.8 | 20.8 | 21.7 | 17.0 | 18.7 | 20.4 | 19.4 |
| Communist | 20.1 | 21.1 | 20.9 | 22.8 | 23.8 | 22.4 | 22.1 | 22.2 | 22.3 |
| Total consumption | 55.8 | 57.4 | 60.2 | 62.2 | 58.5 | 60.9 | 60.7 | 60.8 | 62.4 |
| By country: | | | | | | | | | |
| United States | 8.2 | 8.3 | 7.8 | 7.5 | 5.9 | 7.3 | 6.7 | 6.5 | 6.3 |
| Foreign noncommunist: | | | | | | | | | |
| Net importing | 18.9 | 19.4 | 19.7 | 20.7 | 18.7 | 20.3 | 19.7 | 19.1 | 20.0 |
| Net exporting | 8.4 | 8.6 | 9.7 | 10.2 | 10.1 | 10.6 | 10.7 | 10.9 | 11.3 |
| Communist | 20.4 | 22.2 | 22.9 | 23.9 | 23.8 | 22.7 | 23.6 | 24.3 | 24.7 |

[1] Year beginning August 1. [2] Preliminary. [3] Estimated. [4] Bales of .217 metric tons (480 lb.) net.

# FIBERS

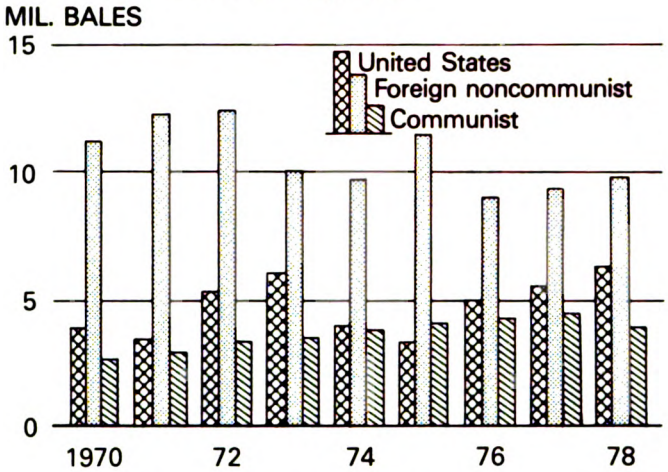
World cotton exports increased for the second consecutive year in 1978/79. The 1978/79 cotton export estimate of 20.1 billion bales has been exceeded only by the 1972/72 level of 21.0 million bales. Greater consumption and lower beginning stocks in some importing countries are partly responsible for the anticipated higher level of world cotton exports.

Although the world cotton producing area expanded steadily from 1966/67 to 1972/73 (except for a slight decline in 1970/71), it has fluctuated widely since then. It plummeted to a low of 30 million hectares in 1975/76 in response to the high beginning stock level of 31 million bales, but rebounded strongly in both 1976/77 and 1977/78.

---

Chart 258

## World Cotton Exports




Bales of .218 metric tons (480 lb.) net. 1978 preliminary.

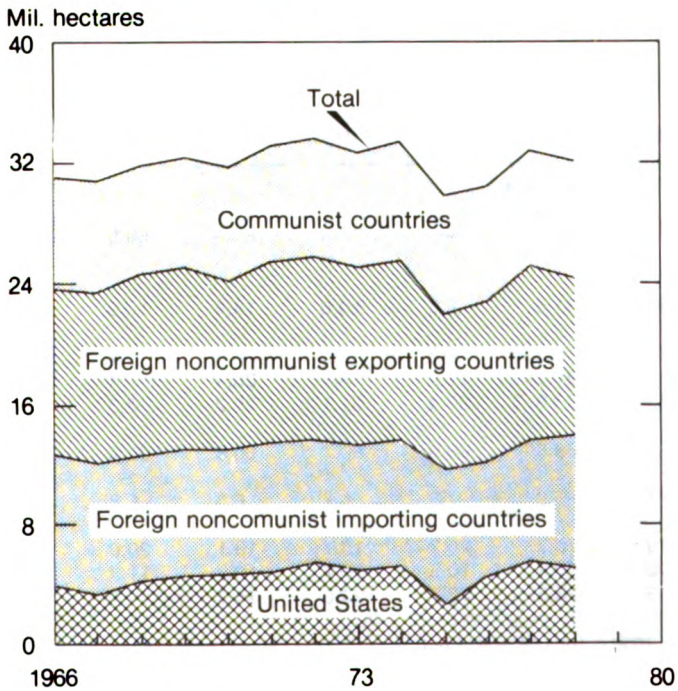
**World Cotton Exports**

| | 1975/76 | 1976/77 | 1977/78 | 1978/79 |
|---|---|---|---|---|
| | *Million bales*[1] | | | |
| Total exports | 19.1 | 17.6 | 19.2 | 20.1 |
| Originating countries: | | | | |
| United States | 3.3 | 4.8 | 5.5 | 6.3 |
| Foreign noncommunist | 11.7 | 8.3 | 9.3 | 9.9 |
| Communist | 4.1 | 4.5 | 4.5 | 3.9 |

[1] Bales of .218 metric tons (480 lb.) net.

Chart 259

## World Cotton Area




**World Cotton Area**[1]

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Thousand hectares* | | | |
| Total area | 29,759 | 30,423 | 32,567 | 31,772 |
| By country: | | | | |
| United States | 3,560 | 4,417 | 5,372 | 5,005 |
| Foreign noncommunist: | | | | |
| Net importing | 8,218 | 7,609 | 8,224 | 8,600 |
| Net exporting | 10,156 | 10,700 | 11,499 | 10,638 |
| Communist: | | | | |
| China | 4,816 | 4,654 | 4,411 | 4,411 |
| USSR | 2,922 | 2,950 | 2,980 | 3,038 |
| Other | 87 | 93 | 81 | 80 |

[1] Year beginning August 1.

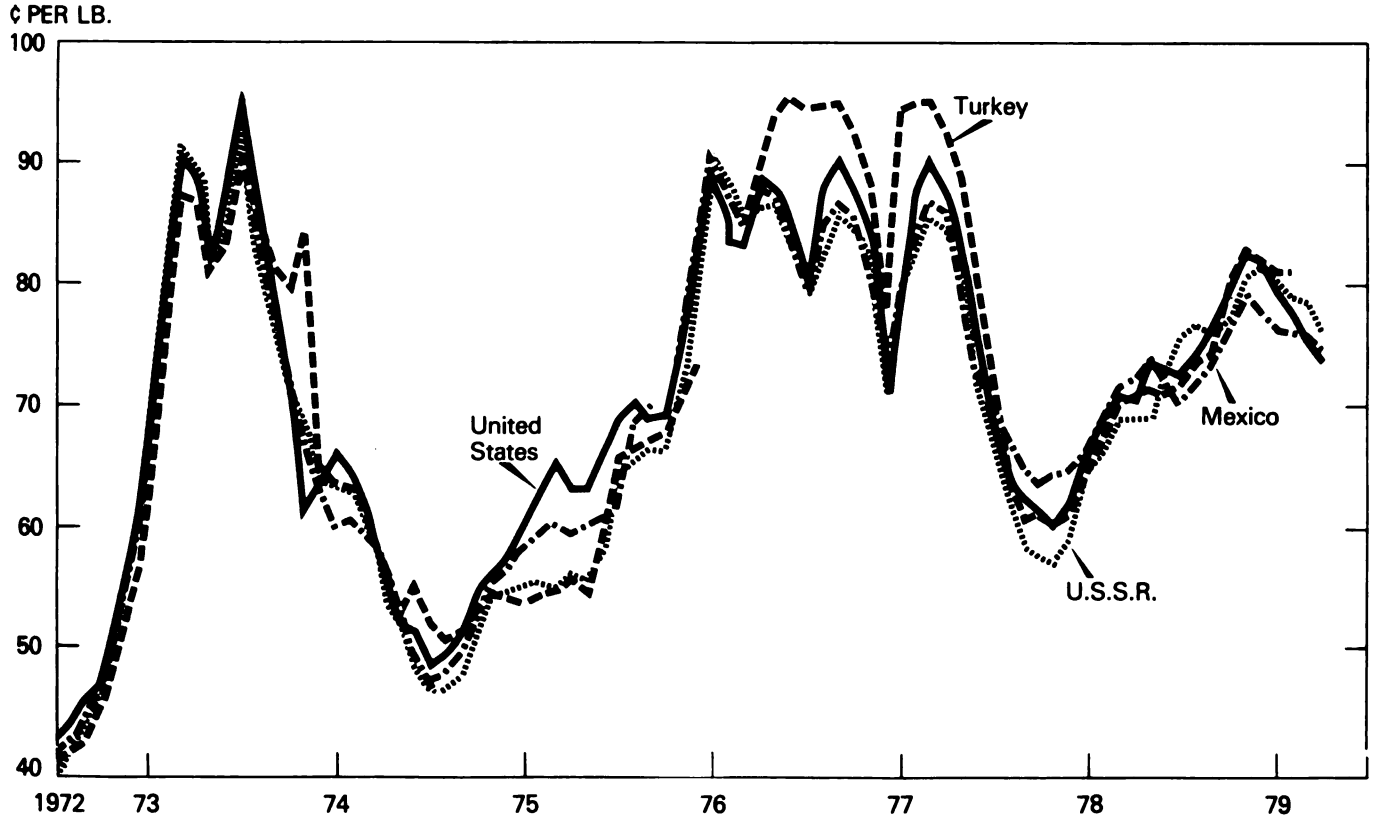
# FIBERS

World cotton prices rose during the first 4 months of 1978/79 (August through November), peaking in November when U.S. California-Arizona SM 1-1/16" cotton prices averaged 82.55 cents per pound. The 4-month rise in cotton prices occurred as it became more apparent that the 1978/79 world cotton crop would be significantly smaller than that of 1977/78. Since November, prices have been on a downward trend, with U.S. California-Arizona SM1-1/16" prices dropping to 73.94 cents per pound in April.

Foreign textile mills, electing to carry reduced stock levels and purchasing much of their cotton requirement early in the season for later delivery, played a major role in the price decline.

Chart 260

## World Cotton Prices




Source: Cotton Outlook Services, LTD. 11/16 inches, C.I.F. Northern Europe.

**Cotton: C.I.F. Prices, Northern Europe, Monthly Averages**

| | Mar. | Apr. | May | June | July | Aug. | 1977 Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | 1978 Mar. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Price per pound for SM 1' 1/16": | | | | | | | *Cents* | | | | | | |
| United States (Calif./Ariz.) | 90.20 | 87.62 | 84.00 | 72.60 | 67.38 | 64.06 | 62.40 | 61.62 | 60.00 | 61.75 | 65.94 | 69.12 | 70.75 |
| Mexico | 86.95 | 85.75 | 80.75 | 72.80 | 71.31 | 68.31 | 64.80 | 63.25 | 64.12 | 64.44 | 66.25 | 69.56 | 71.85 |
| Turkey | 95.00 | 92.50 | 89.00 | 76.25 | 69.25 | 63.38 | 60.55 | 61.19 | 60.19 | 61.12 | 64.44 | 67.31 | 70.50 |
| USSR | 85.60 | 84.44 | 81.06 | 71.95 | 67.88 | 62.38 | 58.60 | 57.50 | 56.88 | 59.12 | 64.81 | 66.56 | 69.20 |

| | Apr. | May | June | July | Aug. | 1978 Sept. | Oct. | Nov. | Dec. | Jan. | 1979 Feb. | Mar. | Apr. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | *Cents* | | | | | | |
| United States (Calif./Ariz.) | 70.56 | 73.81 | 73.25 | 71.50 | 74.55 | 76.31 | 79.00 | 82.55 | 82.25 | 79.31 | 77.88 | 77.45 | 73.94 |
| Mexico | 72.38 | 73.94 | 72.60 | 70.12 | 72.10 | 73.75 | 76.50 | 78.55 | 77.67 | 76.00 | 76.19 | 73.35 | 74.50 |
| Turkey | 71.00 | 71.38 | 71.00 | 71.69 | 73.80 | 74.38 | 80.50 | 82.70 | 82.00 | 80.75 | 81.00 | NQ | NQ |
| USSR | 69.56 | 69.69 | 72.35 | 75.75 | 76.80 | 76.06 | 77.38 | 80.70 | 81.50 | 80.31 | 78.81 | 78.75 | 76.31 |

NQ = not quoted.

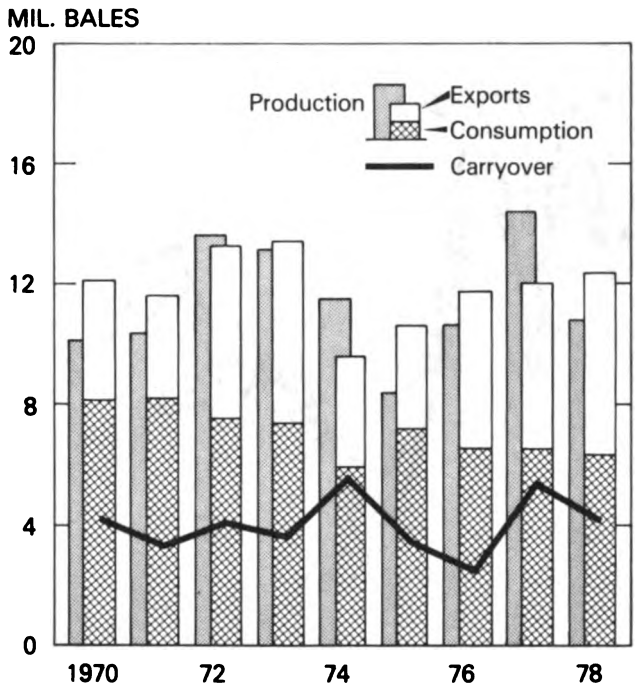
# FIBERS

The 1978/79 cotton marketing year was highlighted by sharply lower production and strong demand. Production of 10.9 million bales was 25 percent lower than 1977/78, as average yield declined by 100 pounds per acre. The low yield resulted from late plantings, insect damage, and drought in west Texas. Based on September 1 conditions, U.S. cotton production in 1979/80 could total 13.5 million bales. Harvested acreage was forecast at 13.3 million and average yield at 485 pounds per acre.

Exports during 1978/79 were 6.3 million bales, the highest since 1960/61. Combined exports and mill use totaled 12.6 million bales, the most since 1973/74. Carryover on August 1, 1979, was 3.7 million bales.

Chart 261

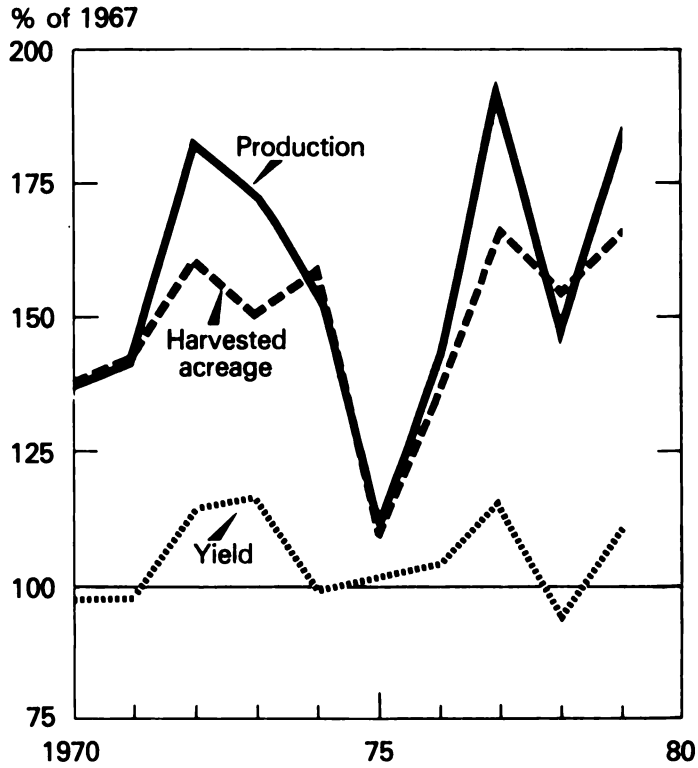
## Cotton Production, Use, and Carryover




Year beginning August 1. 480-pound net weight bales. Ending carryover. 1978 preliminary.

Chart 262

## U.S. Cotton Production, Acreage, And Yield




Year beginning August 1. 1979 preliminary.

**Cotton Production, Use, and Carryover**

| | 1975 | 1976 | 1977 | 1978[1] |
|---|---|---|---|---|
| | *Million bales*[2] | | | |
| Production[3] | 8.3 | 10.6 | 14.4 | 10.8 |
| Consumption[4] | 7.3 | 6.7 | 6.5 | 6.3 |
| Exports | 3.7 | 4.8 | 5.5 | 6.0 |
| Carryover[5] | 3.7 | 2.9 | 5.3 | 4.1 |

[1] Preliminary. [2] 480-pound net weight bales. [3] Includes preseason ginnings. [4] Adjusted to a cotton marketing year basis, August 1 - July 31. [5] Ending carryover.

**U.S. Cotton Production, Acreage, and Yield**

| | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|
| | *Million bales*[2] | | | |
| Production | 10.6 | 14.4 | 10.9 | 13.7 |
| | *Million acres* | | | |
| Harvested acreage | 10.9 | 13.3 | 12.4 | 13.3 |
| | *Pounds* | | | |
| Yield | 465 | 520 | 421 | 497 |

[1] Preliminary. [2] 480-pound net weight bales.

Data published currently in *Cotton and Wool Situation* (ESCS).

# FIBERS

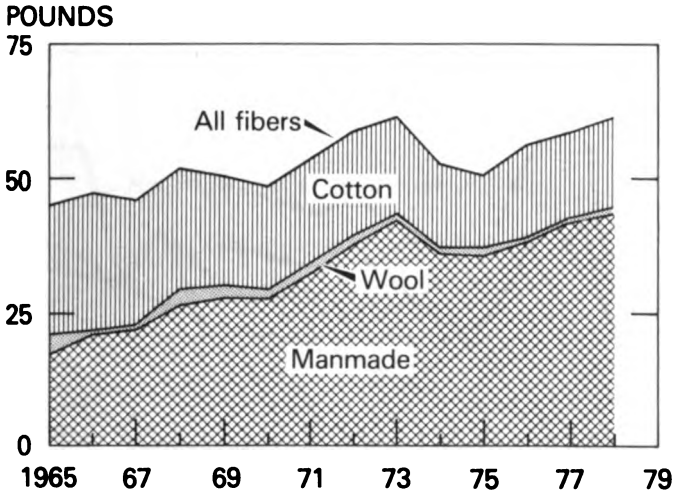
Cotton prices increased throughout 1978, reflecting declining production prospects in the U.S. and strong foreign demand for U.S. cotton.

However, prices began to weaken in late 1978 and the decline continued into the summer of 1979. Primarily responsible for this price weakness was the anticipation of a large 1979 cotton crop and the unfavorable outlook for the U.S. economy.

Per capita domestic fiber use in 1978 was 60.4 pounds, up from 58.7 pounds in 1977. Cotton's share of the fiber market fell to a record low of 26.8 percent.

Chart 263

## Per Capita Domestic Consumption of Fibers




Mill consumption adjusted for fiber equivalent of trade balance in textile manufactures. All fibers does not include flax and silk. 1978 preliminary.

**Per Capita Domestic Consumption of Fibers[1]**

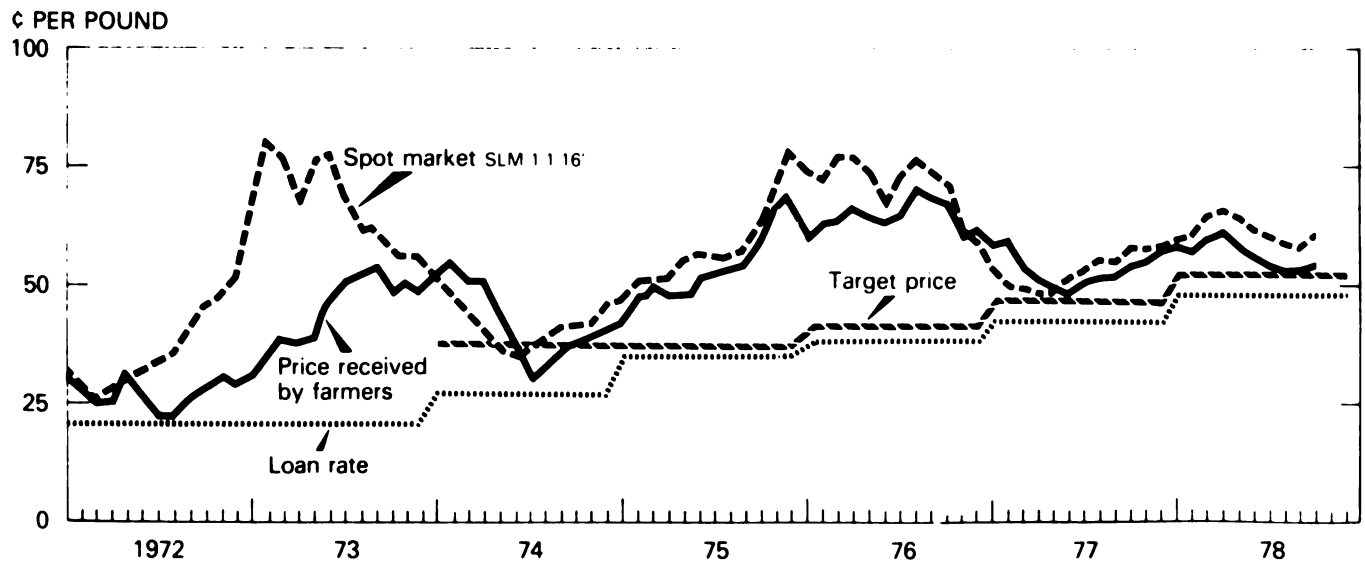
| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | | *Pounds* | | |
| Per capita consumption of: | | | | |
| Cotton | 14.9 | 17.2 | 16.1 | 16.2 |
| Wool | .7 | 1.0 | 1.0 | 1.1 |
| Manmade | 35.1 | 38.0 | 41.8 | 43.2 |
| Total fibers[3] | 50.7 | 56.2 | 58.7 | 60.4 |
| | | *Percent* | | |
| Percentage of total fiber consumption: | | | | |
| Cotton | 29.3 | 30.7 | 27.3 | 26.8 |
| Wool | 1.5 | 1.7 | 1.7 | 1.8 |
| Manmade | 69.3 | 67.7 | 71.0 | 71.5 |

[1] Does not include flax and silk. [2] Preliminary. [3] Total consumption divided by population.

Data published currently in *Cotton and Wool Situation* (ESCS).

Chart 264

## U.S. Cotton Prices




Year beginning August 1. Loan rate for SLM 1 1 16 average location

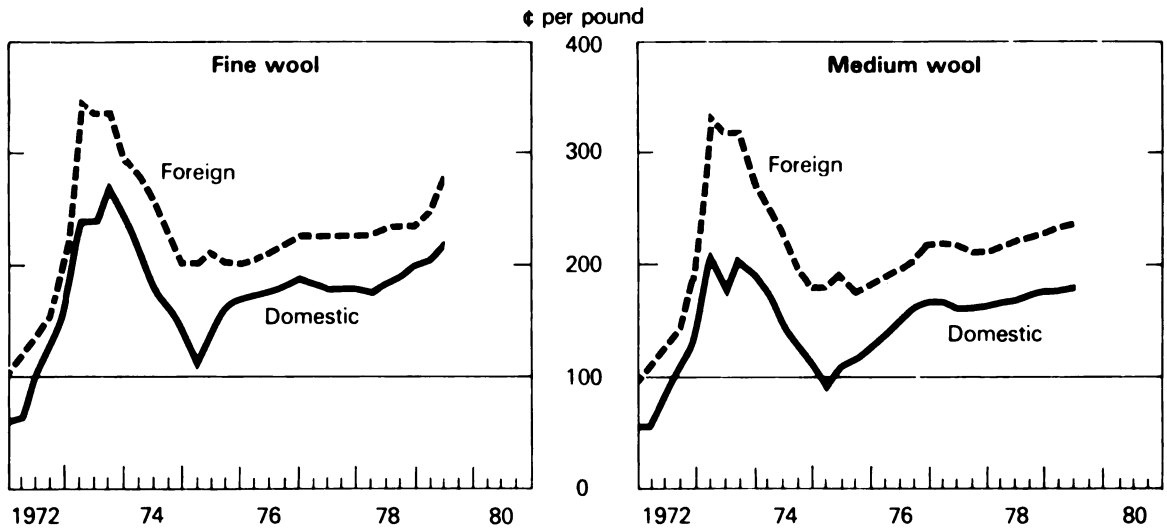
# FIBERS

Domestic per capita use of apparel wool, at 0.94 pounds in 1978,was the highest in 5 years. However, most of this increase was from imported wool and wool used mainly in apparel products made from manmade fibers. A continuation of favorable currency exchange ratios should reduce apparel imports.

Mill use apparel wool has grown little in recent years because of the intense competition from manmade fibers. Increasing concern over energy costs might reverse the trend in mill consumption of apparel wool.

Chart 265

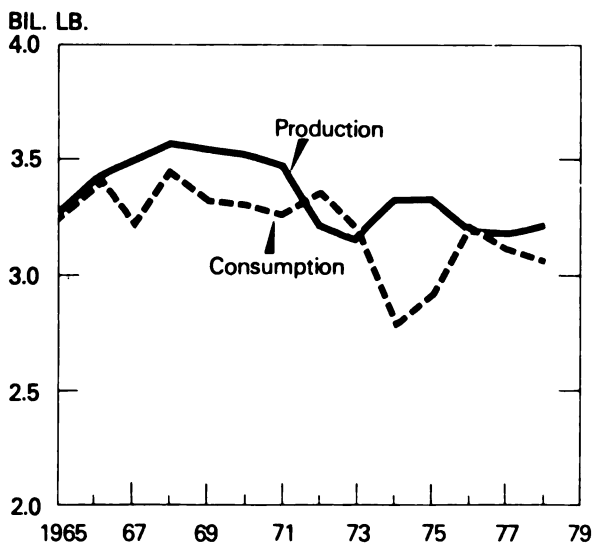
## Wool Prices




Clean basis Content weight, delivered to U S mills Fine wool foreign Australian 64's type 62, duty paid, domestic graded territory 64's (20 60 - 22 04 microns) staple 2- ¼" and up Medium wool foreign Australian 58 60's, type 423 3 duty paid, domestic graded territory 58's (24 95 - 26 39 microns) staple 3- ¼ and up, and 60's (23 50-24 94 microns) staple 3" and up

Chart 266

## World Production And Consumption of Raw Wool




Clean content weight Production on marketing year basis

**World Production and Consumption of Raw Wool[1]**

| | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|
| | | *Million pounds* | | |
| Production[2] | 3,452 | 3,214 | 3,157 | 3,331 |
| Consumption[3] | 3,263 | 3,382 | 3,201 | 2,783 |
| | 1975 | 1976 | 1977 | 1978 |
| | | *Million pounds* | | |
| Production | 3,314 | 3,175 | 3,177 | 3,210 |
| Consumption | 2,912 | 3,190 | 3,109 | 3,067 |

[1] Clean content. [2] Marketing year. [3] Calendar year.

Data published currently in *cotton and Wool Situation* (ESCS).

# FIBERS

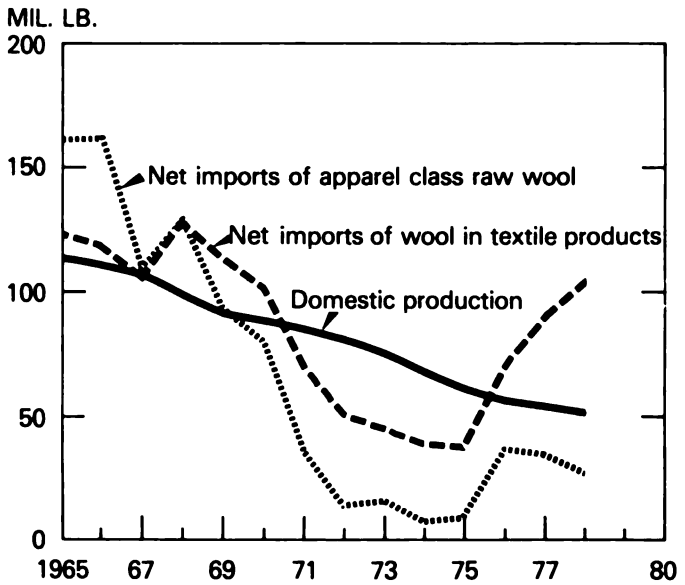
Prices of foreign and domestic wools continued to advance through mid-1979 from their 1975 low. The Australian Wool Corporation announced an increase of 6.7 percent in its support price for 1979/80.

Higher world production of wool is also expected because of low wool stocks, a build-up in sheep numbers, and heavier fleece weights.

World consumption of wool has risen from the 1974 low of 2.8 billion pounds to a high of 3.2 billion in 1976. In 1978, world consumption totaled 3.1 billion pounds.

Chart 267

## Per Capita Consumption Of Apparel Wool




Clean-content weight. Domestic production includes shorn and pulled wool. Net imports are total imports minus exports. 1978 preliminary.

**Per Capita Consumption of Apparel Wool[1]**

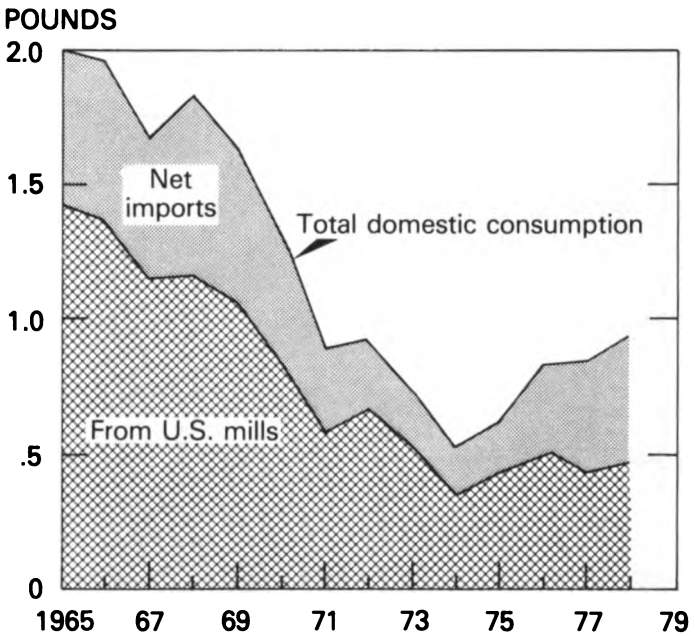
| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | *Pounds* | | | |
| Mill consumption: | | | | |
| Apparel | .44 | .50 | .44 | .47 |
| Carpet wool | .08 | .07 | .06 | .06 |
| Total | .52 | .57 | .50 | .53 |
| Trade balance | | | | |
| Apparel wool | .18 | .33 | .42 | .47 |
| Carpet wool | .04 | .06 | .05 | .06 |
| Total | .22 | .39 | .47 | .53 |
| Domestic consumption:[3] | | | | |
| Apparel wool | .62 | .83 | .86 | .94 |
| Carpet wool | .12 | .13 | .11 | .12 |
| Total | .74 | .96 | .97 | 1.06 |

[1] Per capita was determined from individual data. [2] Preliminary. [3] Mill consumption plus wool equivalent of net imports of apparel wool textiles.

Data published currently in *Cotton and Wool Situation* (ESCS).

Chart 268

## U.S. Production and Net Imports Of Wool and Wool Products




Wool equivalent of excess of imports over exports. 1978 preliminary.

**U.S. Production and Net Imports of Wool And Wool Products[1]**

| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | *Million pounds* | | | |
| Domestic production:[3] | | | | |
| Shorn | 57.0 | 52.9 | 53.6 | 50.7 |
| Pulled | 2.5 | 1.9 | 0.9 | .3 |
| Total | 59.5 | 54.8 | 54.5 | 51.0 |
| Imports of raw wool:[4] | | | | |
| Dutiable | 16.6 | 38.4 | 34.2 | 27.0 |
| Duty-free | 17.0 | 19.1 | 18.8 | 23.4 |
| Total | 33.6 | 57.5 | 53.0 | 50.4 |
| Import trade balance of wool textile products:[5] | | | | |
| Apparel wool | 37.5 | 71.6 | 90.7 | 103.6 |
| Carpet wool | 9.5 | 11.8 | 12.9 | 13.2 |
| Total | 47.0 | 83.4 | 103.6 | 116.8 |

[1] Clean basis. [2] Preliminary. [3] Production as reported converted on basis of: 47.7-percent yield for 1964-76 and 50-percent for 1977 and 1978. [4] Imports of raw wool for consumption. [5] Raw wool for consumption. [5] Raw wool content of semiprocessed and manufactured wool textile products.

Data published in *Cotton and Wool Situation* (ESCS).

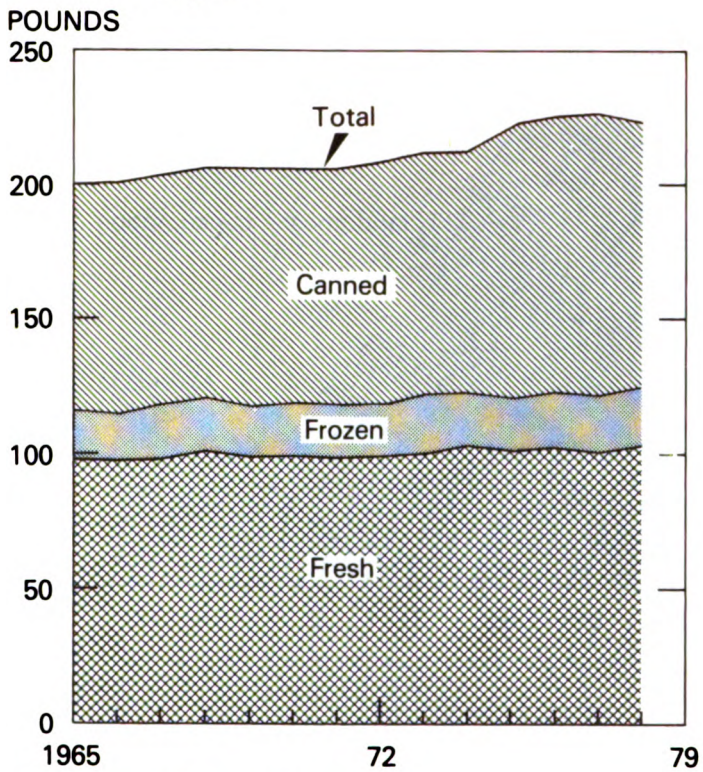
# VEGETABLES

Total vegetable use continues to make moderate gains. Use of fresh vegetables had turned upward after declining for many years. In 1978, per capital use reached a new high. In the canned sector, tomato products have gained in importance during the past 10 years. In 1978 tomato products dipped from the high levels of the 3 previous year.

Potatoes—the most popular vegetable in the United States—are being purchased more and more in a processed form. Processing gains have more than offset the decline in the use of fresh potatoes. Since 1970, processed potato products have accounted for the larger share of all potatoes.

Chart 269

## Vegetable Consumption Per Capita




Canned and frozen on a fresh-weight basis.

**Vegetable Consumption Per Capita**

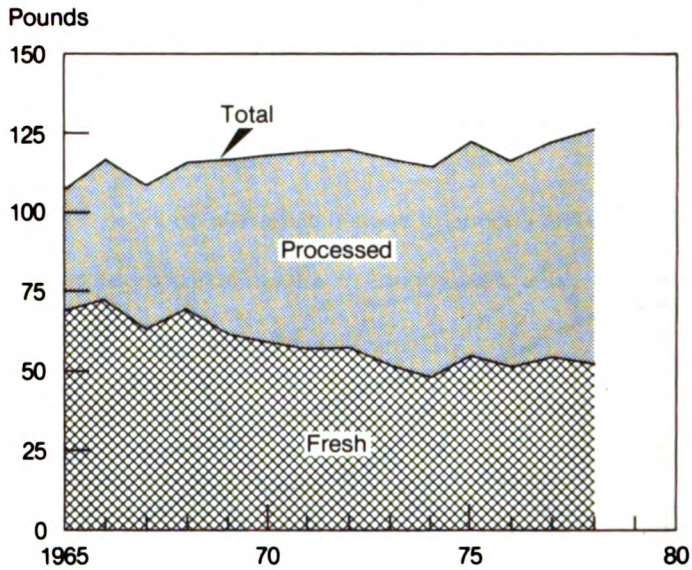
| | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|
| | *Pounds* | | | |
| Total consumption | 212.0 | 216.0 | 224.1 | 223.7 |
| Fresh[1] | 98.2 | 99.3 | 100.6 | 102.9 |
| Frozen[2] | 20.2 | 20.4 | 21.9 | 20.9 |
| Canned[2] | 93.6 | 96.3 | 101.6 | 100.9 |

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Pounds* | | | |
| Total consumption | 223.6 | 226.2 | 226.7 | 223.7 |
| Fresh[1] | 101.9 | 102.7 | 101.4 | 103.1 |
| Frozen[2] | 19.8 | 20.5 | 21.1 | 21.8 |
| Canned[2] | 101.9 | 103.0 | 104.2 | 98.8 |

[1] Includes dehydrated onions and excludes melons. [2] Fresh-weight basis.

Chart 270

## Potato Consumption per Capita




1978 preliminary.

**Potatoes Consumption Per Capita**

| | 1975 | 1976 | 1977 | 1978[1] |
|---|---|---|---|---|
| | *Million cwt.* | | | |
| Production | 322.3 | 357.7 | 354.6 | 360.5 |
| | *Pounds* | | | |
| Consumption, per capita | 122.1 | 116.4 | 121.7 | 125.3 |
| Fresh | 55.0 | 51.2 | 54.0 | 51.9 |
| Processed[2] | 67.1 | 65.2 | 67.7 | 73.4 |
| Canned[3] | 2.0 | 2.0 | 2.5 | 2.6 |
| Frozen | 34.7 | 36.9 | 39.9 | 43.9 |
| Shoestrings and chips | 15.9 | 16.2 | 16.0 | 16.5 |
| Dehydrated | 14.5 | 10.1 | 9.3 | 10.4 |

[1] Preliminary. [2] Fresh-weight basis. [3] Includes potatoes canned in soups, stews, and other combinations.

# VEGETABLES

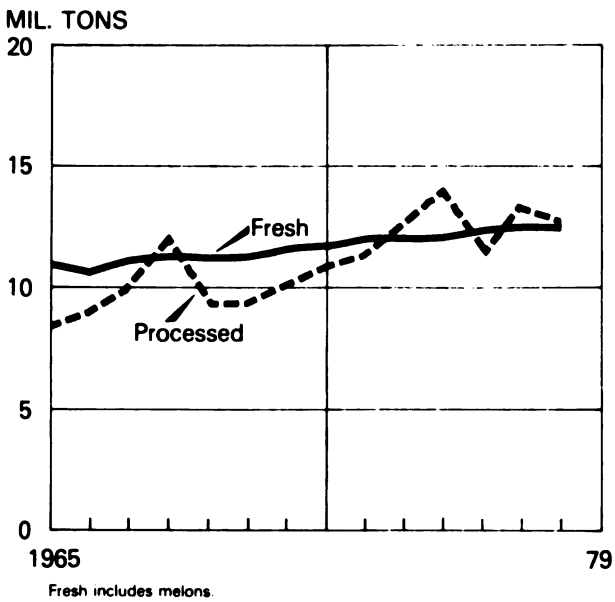
Production of fresh vegetables has shown a slight rise in recent years, with imports adding to total use. Fresh production in 1978 was up 1.5 million tons from 1970.

Processed vegetable tonnage fluctuates from year to year—largely the result of changes in tomato production. However, the long-term trend is definitely upward. Production in 1978 increased 2.6 million tons from 1970.

Production of dry beans has changed little during the past three seasons. Prices are influenced the most by the size of the crop and export demand. Domestic use tends to vary less than exports.

Chart 271

## Production of Fresh And Processed Vegetables




Fresh includes melons.

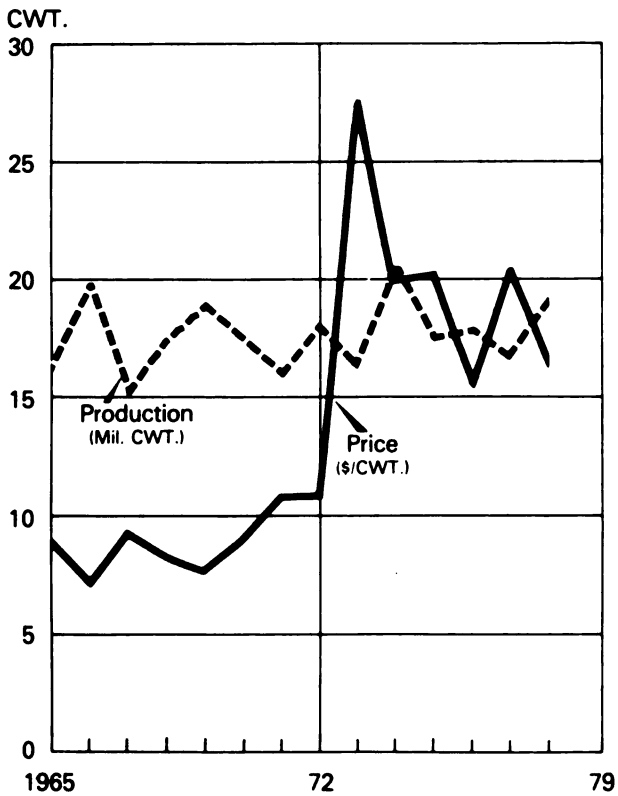
**Production of Fresh and Processed Vegetables**

| | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|
| | *Million tons* | | | |
| Total | 21.4 | 22.5 | 23.3 | 24.5 |
| Fresh[1] | 11.4 | 11.6 | 11.9 | 12.0 |
| Processed | 10.0 | 10.9 | 11.4 | 12.5 |
| | 1975 | 1976 | 1977 | 1978 |
| | *Million tons* | | | |
| Total | 25.9 | 23.9 | 25.7 | 24.9 |
| Fresh[1] | 11.9 | 12.3 | 12.4 | 12.9 |
| Processed | 14.0 | 11.6 | 13.3 | 12.0 |

[1] Includes melons. The processing portion of broccoli, carrots, and cauliflower are included with the processing crops beginning in 1972.

Chart 272

## Dry Bean Production and Price




1978 estimated.

**Dry Bean Production and Price**

| | 1973 | 1974 | 1975 |
|---|---|---|---|
| Production: | | | |
| Million cwt. | 16.2 | 20.3 | 17.4 |
| Price: | | | |
| Dollars per cwt. | 27.30 | 19.80 | 20.10 |
| | 1976 | 1977 | 1978 |
| Production: | | | |
| Million cwt. | 17.7 | 16.6 | 19.1 |
| Price: | | | |
| Dollars per cwt. | 15.5 | 20.2 | 16.3 |

# VEGETABLES

Americans are eating more vegetables, but there have been changes in preferences. Much of the recent change in canned vegetable use comes from a greater use of tomatoes, tomato products, and pickles—thanks to the growth in fast-food outlets.

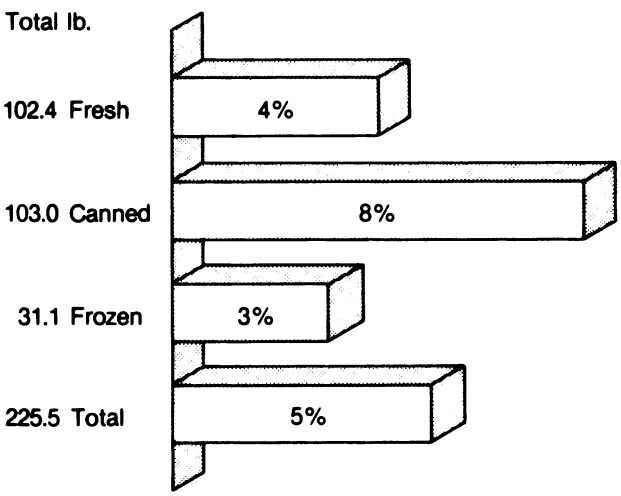
There have also been slight gains in fresh vegetable use, due to increased popularity of salad vegetables. Also, Florida has effectively extended the marketing season for fresh sweet corn.

Recent changes in frozen vegetable use suggest a trend toward lower calorie items, such as broccoli and snap beans, with a drop in use of peas.

---

Chart 273

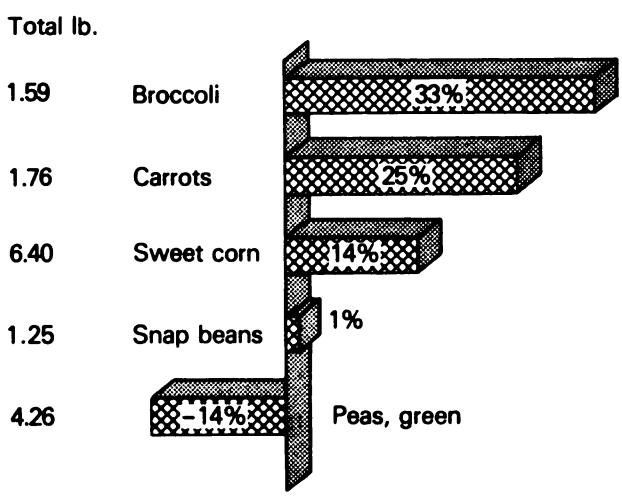
## Changes in Vegetable Consumption Per Capita, 1975-77




Fresh-weight basis; excludes potatoes, sweet potatoes and melons; dehydrated onions included in fresh.

Chart 274

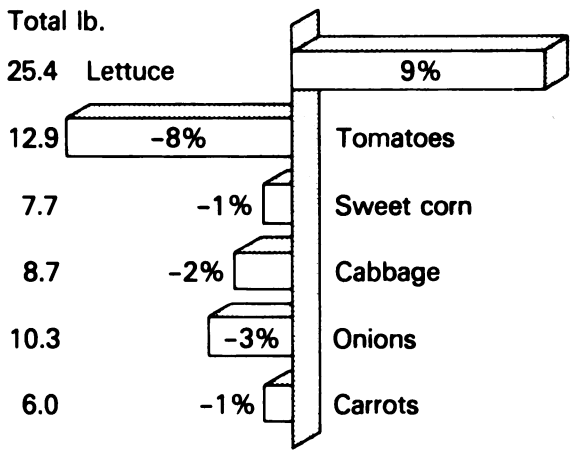
## Changes in Frozen Vegetable Consumption per Capita Between 1970-72 and 1976-78




Fresh-weight basis.

Chart 275

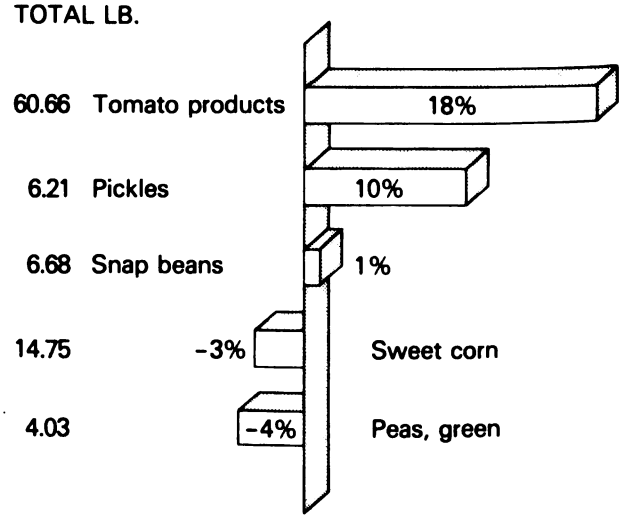
## Changes in Fresh Vegetable Consumption per Capita, 1976-78




Lettuce includes escarole.
Onions include about 3 lbs. of dehydrated onions.

Chart 276

## Changes in Canned Vegetable Consumption per Capita Between 1970-72 and 1976-78




Fresh-weight basis.

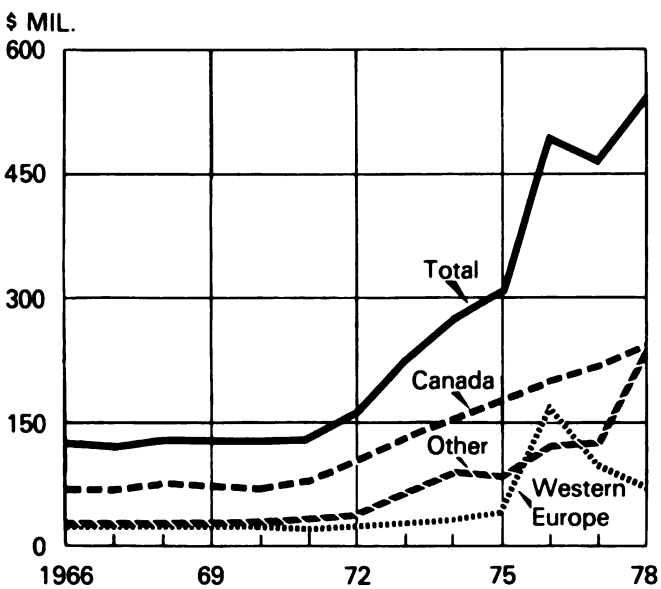
# VEGETABLES

U.S. vegetable exports rose dramatically in 1976 as a result of the European drought, receded slightly in 1977, and then resumed the sharp uptrend set during 1971/1975. During the 1960's, vegetable exports were quite static. Japan has now replaced the European Community as the second leading market for U.S. vegetable exports. Major U.S. export items are: tomatoes and onions in fresh, frozen, and dehydrated forms; fresh tomatoes, lettuce, and celery; and canned corn and tomato products.

While vegetable imports have trended upward since 1966, with most of the fluctuation in the fresh vegetable sector, they rose sharply in 1977 and 1978. The 1977 increase was principally the result of higher fresh vegetable imports.

Chart 277

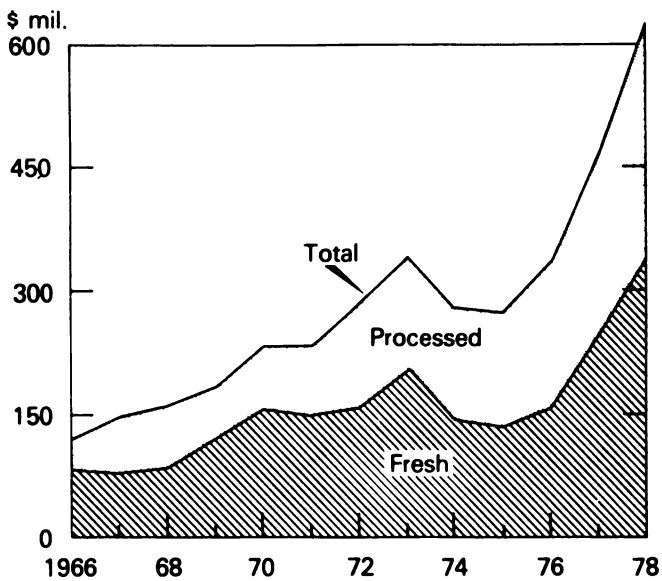
## U.S. Vegetable Exports, By Destination




Excludes melons, dried beans, and dried peas.

Chart 278

## U.S. Imports of Fresh And Processed Vegetables




Excludes melons, dried beans, and dried peas

**U.S. Vegetable Exports by Destination[1]**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Total exports | 305.2 | 498.5 | 466.9 | 541.8 |
| Fresh | 158.0 | 247.4 | 213.9 | 223.7 |
| Processed | 147.2 | 251.1 | 253.0 | 318.1 |
| Receiving country: | | | | |
| Canada | 175.1 | 201.4 | 219.1 | 238.3 |
| Western Europe | 43.7 | 174.2 | 106.3 | 68.6 |
| Other | 86.4 | 122.9 | 141.5 | 234.9 |

[1] Excluding melons, dried beans, and dried peas.

**U.S. Imports of Fresh and Processed Vegetables by Origin[1]**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Total imports | 277.0 | 336.2 | 470.4 | 628.3 |
| Fresh | 137.0 | 159.0 | 260.0 | 339.9 |
| Processed | 140.0 | 177.2 | 210.4 | 288.4 |
| Originating country: | | | | |
| Canada | 21.1 | 17.6 | 22.0 | 30.2 |
| Italy | 8.7 | 9.0 | 9.2 | 10.2 |
| Mexico | 115.4 | 136.9 | 252.3 | 331.8 |
| Portugal | 4.1 | 6.1 | 2.7 | 3.9 |
| Spain | 15.0 | 17.7 | 17.6 | 28.4 |
| Taiwan | 37.9 | 55.0 | 84.3 | 81.4 |
| Other | 74.8 | 93.9 | 82.3 | 142.4 |

[1] Excluding melons, dried beans, and dried peas.

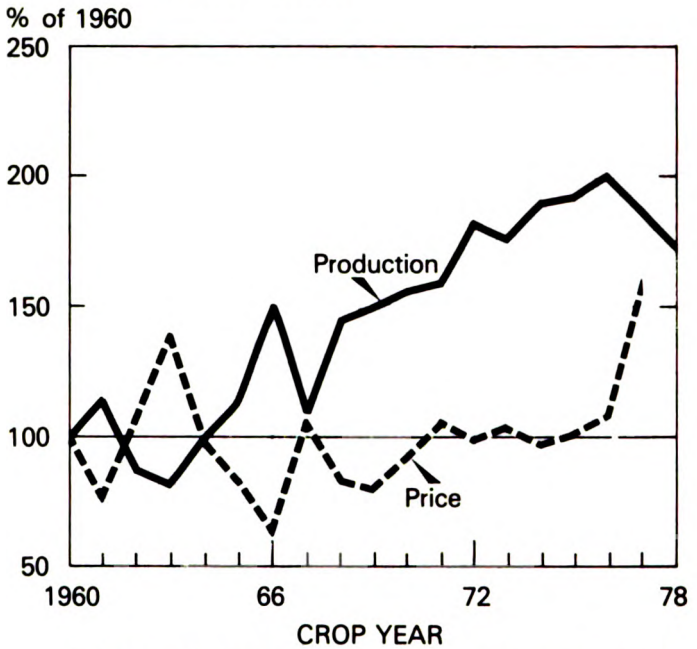
# FRUIT

Because of the freezes in California, Arizona, and Texas in January 1979 and the effect of the freeze in Florida in 1977, citrus fruit production for the 1978/79 season declined to 13.2 million tons, 6.5 percent below 1977/78 output. Moderately to sharply smaller crops were estimated for all citrus except tangerines—unchanged from last season—and limes, which are up more than 60 percent from last season's small crop. Reflecting smaller supplies and good demand, grower prices for most citrus, particularly for lemons, were above year-earlier levels.

Per capital citrus consumption continued to drop in 1978. This decline was due mainly to the moderate decrease in consumption of frozen concentrated orange juice.

Chart 279

## Citrus Fruit Production And Farm Prices




Production of all citrus fruits. Season average growers' price weighted by production. 1978 preliminary.

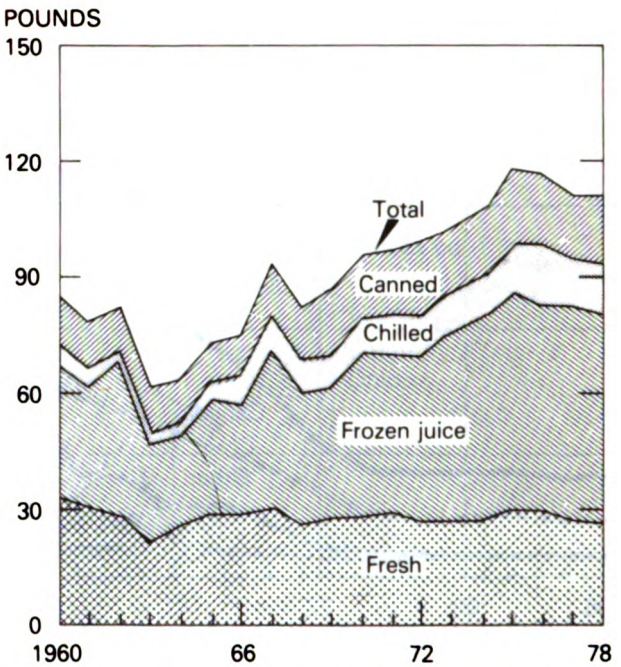
**Citrus Fruit Production and Farm Prices[1]**

| | 1975 | 1976 | 1977 | 1978 [2] |
|---|---|---|---|---|
| | *Thousand tons* | | | |
| Total production | 14,788 | 15,242 | 14,212 | 13,198 |
| | *Percentage of 1960* | | | |
| Production | 193.5 | 199.5 | 186.0 | 172.7 |
| Price | 101.3 | 108.5 | 159.0 | |

[1] Oranges, Temples, grapefruit, lemons, limes, tangerines, and tangelos. Price weighted by production. [2] Preliminary as of July 1.

Chart 280

## Citrus Fruit Consumption Per Person




Fresh-equivalent basis. Canned and chilled include fruit and juice. 1978 preliminary.

**Citrus Consumption Per Person[1]**

| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | *Pounds* | | | |
| Total consumption | 120.3 | 118.4 | 111.6 | 108.2 |
| Fresh | 29.7 | 29.4 | 26.7 | 26.5 |
| Processed | 90.6 | 89.0 | 84.9 | 81.7 |
| Canned: | | | | |
| Fruit | 1.4 | 1.2 | 1.3 | 0.9 |
| Juice | 17.8 | 17.1 | 15.5 | 16.4 |
| Chilled: | | | | |
| Fruit | .5 | .6 | .5 | .5 |
| Juice | 11.6 | 12.5 | 12.2 | 12.5 |
| Frozen juice | 59.3 | 57.6 | 55.4 | 51.4 |

[1] Fresh-equivalent basis. [2] Preliminary.

Data published in July 1979 *Fruit Situation* (ESCS).

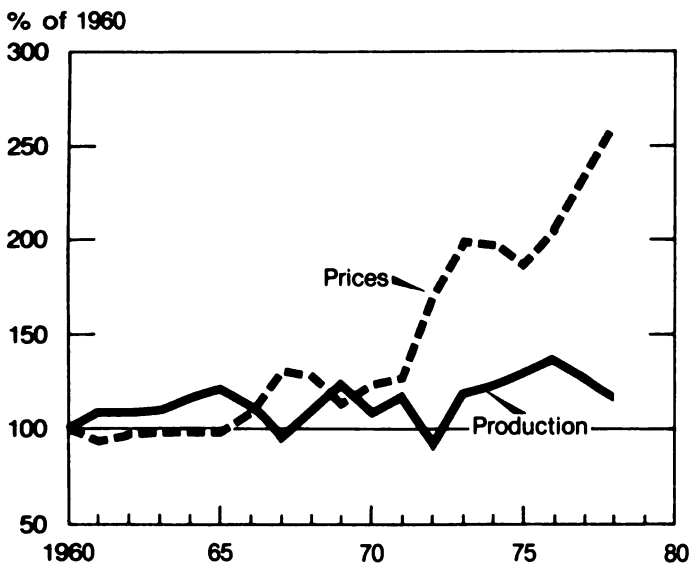
# FRUIT

Production of noncitrus fruits in 1978 totaled 12.4 million tons, almost 5 percent above 1977 levels, but still 14 percent smaller than the 1976 record. Because of strong demand, prices received by growers averaged well above the year-earlier levels.

Per capita noncitrus consumption increased somewhat between 1977 and 1978. Per capita consumption of all fresh noncitrus fruit, except bananas, was relatively stable. Banana consumption reached 20.6 pounds—the highest since 1952. Per capita consumption of processed noncitrus fruit in 1978 continued to climb, primarily because of an increase in use of canned juice.

Chart 281

## Noncitrus Fruit Production And Farm Prices




Production of 15 important fruits.
Season average growers' price weighted by production. 1978 preliminary.

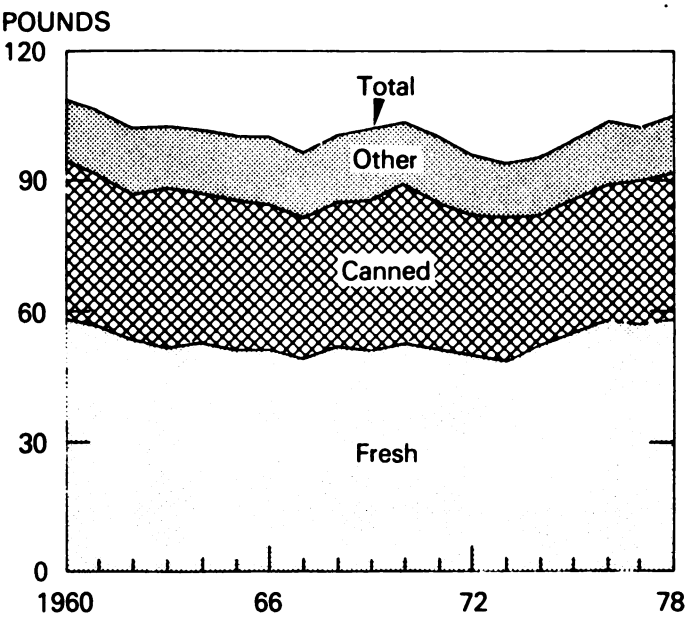
**Noncitrus Fruit Production and Farm Prices[1]**

| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | *Thousand tons* | | | |
| Total production | 12,143 | 12,949 | 11,853 | 12,404 |
| | *Percentage of 1960* | | | |
| Production | 130.2 | 138.8 | 127.1 | 133.0 |
| Price | 187.2 | 205.7 | 235.4 | 269.2 |

[1] Apples, apricots, avocados, cherries, cranberries, dates, figs, grapes, nectarines, olives, peaches, pears, plums, prunes, and strawberries. Prices weighted by production. [2] Preliminary.

Chart 282

## Noncitrus Fruit Consumption Per Person




Fresh-equivalent basis. Canned includes juice.
Other includes frozen and dried fruit. 1978 preliminary.

**Noncitrus Consumption Per Person[1]**

| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | *Pounds* | | | |
| Total consumption | 99.4 | 103.2 | 102.3 | 104.0 |
| Fresh | 54.7 | 57.4 | 56.6 | 57.4 |
| Processed | 44.7 | 45.8 | 45.7 | 46.6 |
| Canned | 30.7 | 31.3 | 32.6 | 34.2 |
| Fruit | 20.0 | 20.0 | 21.0 | 20.5 |
| Juice | 10.7 | 11.3 | 11.6 | 13.7 |
| Dried | 10.4 | 11.0 | 9.7 | 8.9 |
| Frozen | 3.6 | 3.5 | 3.4 | 3.5 |

[1] Fresh-equivalent basis (50 States). [2] Preliminary.

Data published in July 1979 *Fruit Situation* (ESCS).

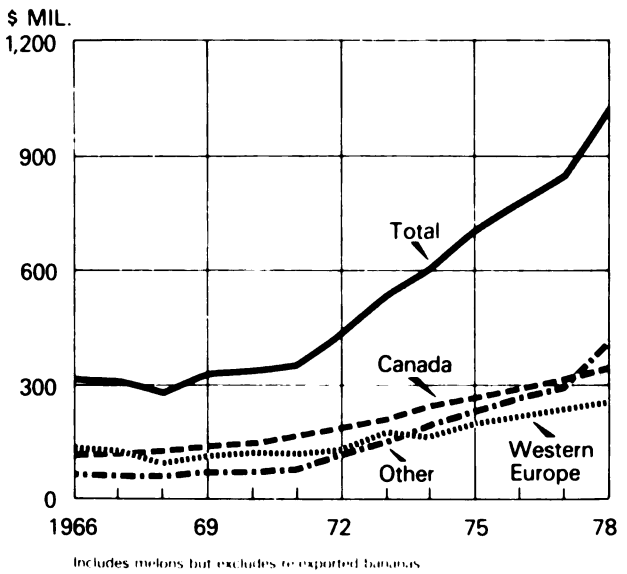
# FRUIT

The value of U.S. fruit exports has tripled since 1971, largely as a result of higher prices and the opening of new markets in the Far East. Value of exports to the principal markets, Canada and Europe, more than doubled during 1971-78. Major export products, in order of rank, are fresh citrus, fresh noncitrus, juices, dried fruit, and canned fruit.

Fruit imports have risen since 1966, with sharp increases in 1977 and 1978. The 1977 surge was mainly the result of higher valued imports of processed fruit, particularly of juice and dried fruit, while the 1978 increase also was because of sharply higher quantities of imported fruit juices and table olives.

Chart 283

## U.S. Fruit Exports by Destination




Includes melons but excludes re-exported bananas

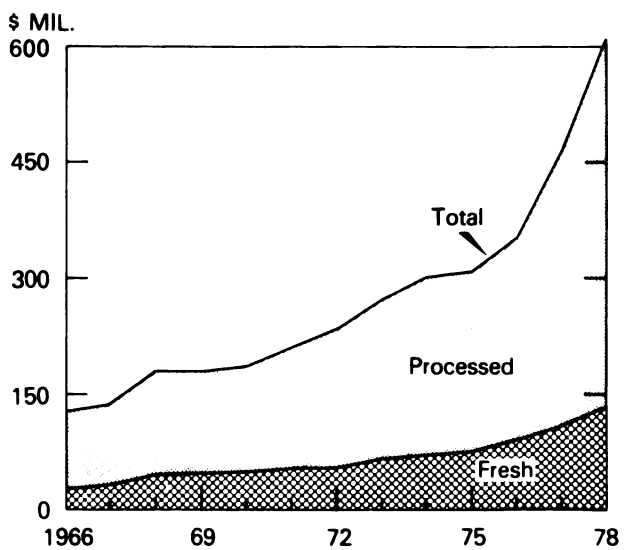
**U.S. Imports of Fresh and Processed Fruit by Origin[1]**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Total imports | 310.1 | 354.5 | 467.8 | 606.3 |
| Fresh | 75.5 | 90.9 | 108.4 | 131.6 |
| Processed | 234.6 | 263.6 | 359.4 | 474.7 |
| Originating country: | | | | |
| Canada | 17.4 | 17.5 | 30.3 | 39.0 |
| Japan | 15.1 | 18.3 | 19.7 | 22.9 |
| Mexico | 69.6 | 69.9 | 105.1 | 113.3 |
| Philippines | 37.6 | 47.6 | 58.2 | 57.7 |
| Spain | 59.0 | 71.2 | 70.1 | 76.0 |
| Taiwan | 14.2 | 12.6 | 15.6 | 15.0 |
| Other | 97.2 | 117.4 | 168.8 | 282.4 |

[1] Including melons but excluding bananas and banana products.

Chart 284

## U.S. Imports of Fresh and Processed Fruit




Includes melons but excludes bananas

**U.S. Fruit Exports by Destination**

| | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|
| | *Million dollars* | | | |
| Total exports | 700.3 | 772.3 | 837.1 | 1,017.1 |
| Fresh | 402.9 | 434.3 | 458.2 | 565.7 |
| Processed | 297.4 | 338.0 | 378.9 | 451.4 |
| Receiving country: | | | | |
| Canada | 267.7 | 290.8 | 315.4 | 344.1 |
| Western Europe | 201.3 | 214.4 | 229.1 | 256.8 |
| Other | 231.3 | 267.1 | 292.6 | 416.2 |

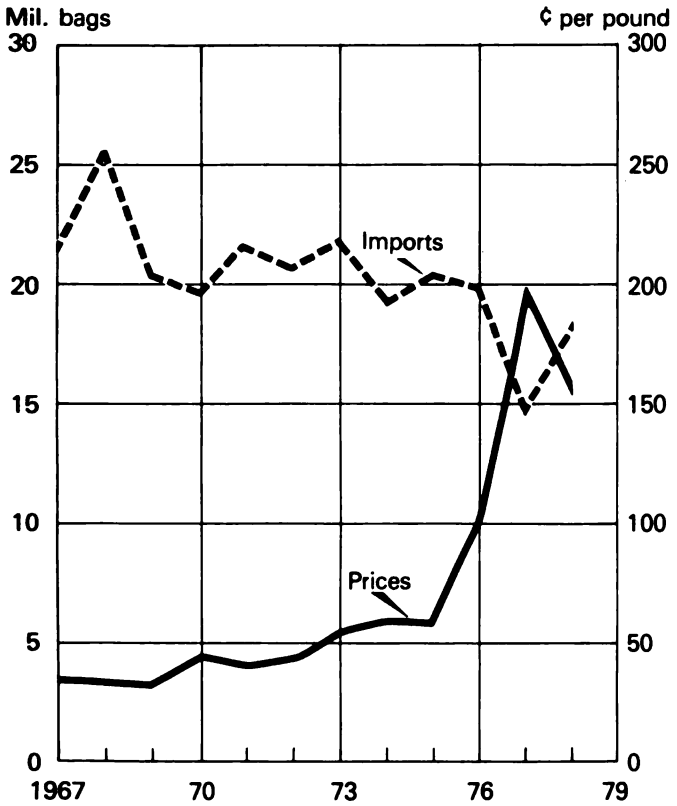
# TROPICAL PRODUCTS

Although green coffee prices in 1978 were down about one-third from 1977 record levels, coffee remained one of the leading commodities in world trade. Coffee is still by far the leading agricultural commodity imported by the United States, accounting for 27 percent of the total value of agricultural imports. In 1978, U.S. coffee imports were valued at $4.07 billion, down only 4 percent in value, as the total import volume increased by 21 percent.

Some 50 countries ship coffee to the United States each year. Leading suppliers of green coffee to the U.S. market in 1978 were: Colombia, Brazil, Mexico, Indonesia, Ecuador, Guatemala, the Ivory Coast, Peru, and El Salvador.

Chart 285

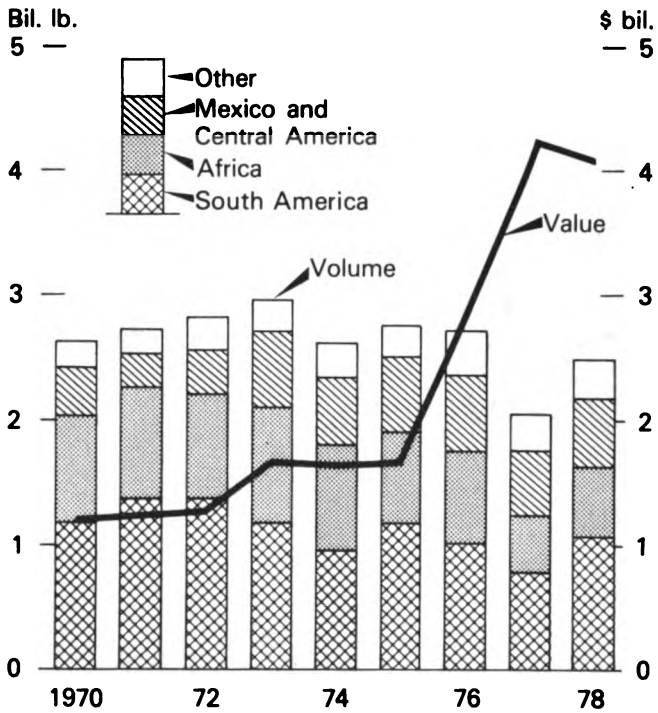
## U.S. Green Coffee Imports and Prices




Imports do not include roasted or soluble coffee. Import price, f.o.b. basis. Bags of 60 kilograms each.

Chart 286

## Where We Get Our Coffee




Includes green, roasted, and soluble.

**U.S. Coffee Imports and Prices[1]**

| | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |
|---|---|---|---|---|---|---|---|
| | | | | *Million pounds* | | | |
| Total imports | 2,833 | 2,994 | 2,639 | 2,769 | 2,727 | 2,065 | 2,499 |
| South America | 1,397 | 1,196 | 965 | 1,184 | 1,031 | 798 | 1,078 |
| Africa | 810 | 905 | 844 | 754 | 756 | 451 | 553 |
| Mexico and Central America | 378 | 607 | 542 | 573 | 595 | 541 | 551 |
| Other | 248 | 286 | 288 | 258 | 345 | 275 | 317 |
| | | | | *U.S. cents/pounds* | | | |
| Green coffee prices[2] | 43.0 | 54.3 | 59.1 | 58.2 | 100.6 | 197.1 | 155.4 |

[1] Includes green, roasted, and soluble. [2] Average import unit value, f.o.b. basis.

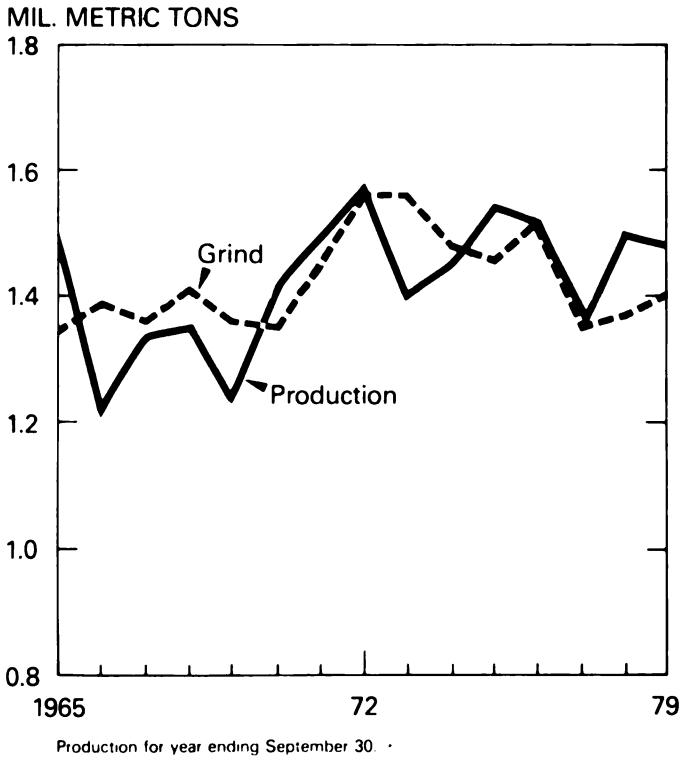
# TROPICAL PRODUCTS

World cocoa bean production during the 1978/79 season exceeded consumption for the second consecutive year and prices have been trending lower. High world prices and the increased use of cocoa substitutes and extenders have curtailed cocoa consumption in recent years. Preliminary reports indicate that production will likely exceed consumption in 1979/80, and lower prices are anticipated.

Both domestic production and imports of sugar declined in 1978. However, the sizable imports at the end of 1977 provided supplies for use in 1978. Domestically grown sugarbeets continued to be the leading source of sugar for the U.S. consumer.

Chart 287

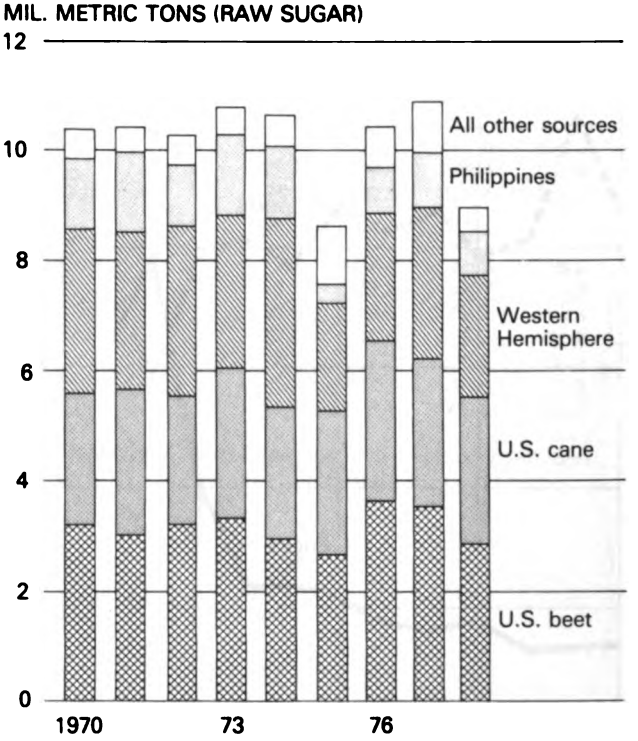
## World Production And Grind of Cocoa Beans




Production for year ending September 30.

Chart 288

## Sources of Sugar Used In the United States




**World Production and Grind of Cocoa Beans[1]**

| | 1972 | 1973 | 1974 | 1975 |
|---|---|---|---|---|
| | *Million metric tons* | | | |
| Production | 1.57 | 1.40 | 1.45 | 1.54 |
| Grind | 1.56 | 1.56 | 1.48 | 1.46 |
| | 1976 | 1977 | 1978 | 1979[2] |
| | *Million metric tons* | | | |
| Production | 1.52 | 1.35 | 1.50 | 1.48 |
| Grind | 1.52 | 1.36 | 1.37 | 1.40 |

[1] Year ending September 30 for production. Approximately 90-day lag before crop reaches importing nations. Grind on calendar-year basis. [2] Preliminary.

**Sources of Sugar Used in the United States[1]**

| | 1975 | 1976 | 1977 | 1978[2] |
|---|---|---|---|---|
| | *Thousand metric tons* | | | |
| Total sugar | 8,601 | 10,464 | 10,888 | 8,953 |
| By source: | | | | |
| Domestic beet | 2,645 | 3,646 | 3,534 | 2,844 |
| Domestic cane[3] | 2,609 | 2,889 | 2,700 | 2,669 |
| Western Hemisphere | 1,951 | 2,349 | 2,711 | 2,215 |
| Philippines | 376 | 817 | 1,031 | 803 |
| All others | 1,020 | 763 | 912 | 422 |

[1] By raw value of sugar. Centrifugal sugar production for domestic beet and domestic cane and imports from foreign suppliers. [2] Preliminary. [3] Includes mainland cane, Hawaii, Puerto Rico, and Virgin Islands.

# TROPICAL PRODUCTS

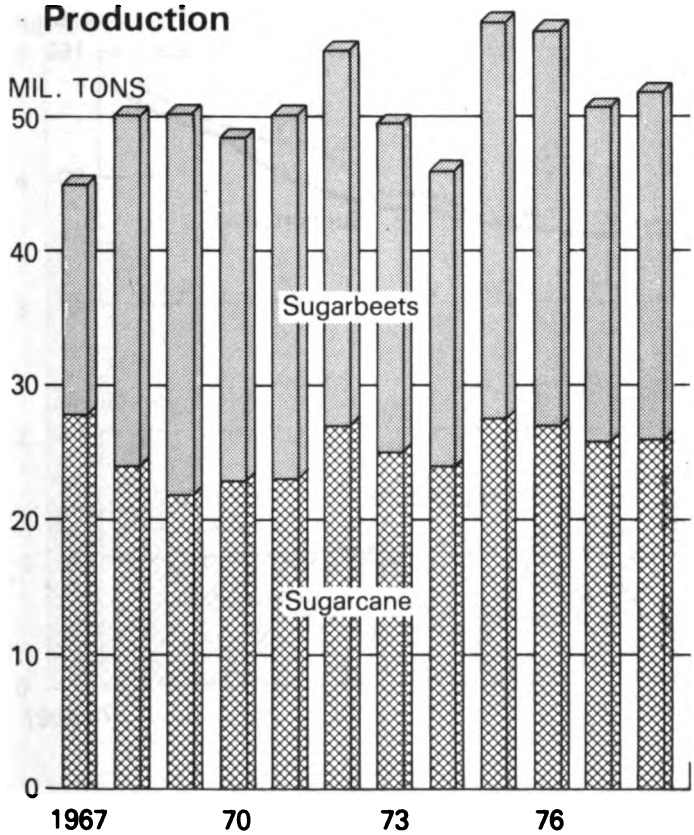
Trends in U.S. sugarcane and sugarbeet production during 1967-78 reflect changes in harvested acreage and yields. Cane production tended to be relatively stable, averaging nearly 26 million tons annually during 1973-78.

Beet output is more responsive to changes in expected profits for alternative crops. Moreover, there were 50 processing plants in 1978, compared with 59 in 1967.

Since 1974, U.S. raw sugar prices have declined, reflecting increased plantings and expanded processing capacity throughout the world. However, world consumption now appears likely to exceed world production for several years beginning in 1979/80. Thus, world prices will likely increase for the next 3 to 5 years.

Chart 289

## U.S. Sugarbeet and Sugarcane Production




Crop year, September /August. Source: Crop production.

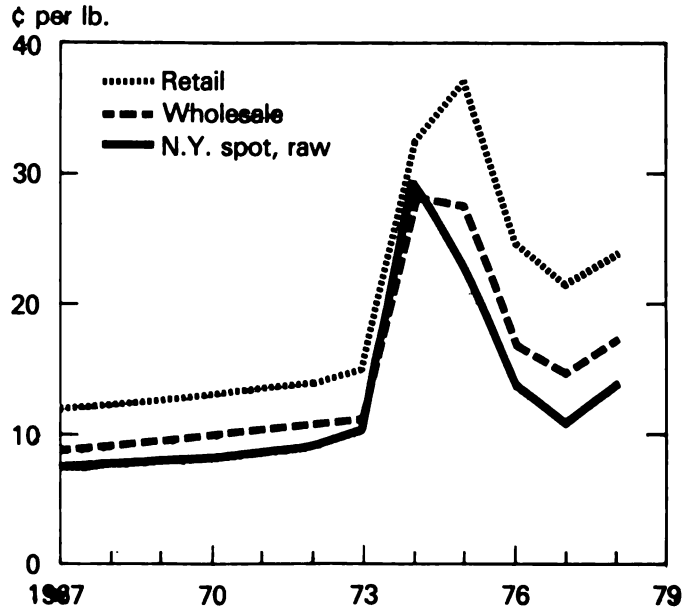
**U.S. Sugarcane and Sugarbeet Production[1]**

| | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|
| | *Million tons* | | | |
| Total production | 56.3 | 50.7 | 51.8 | 48.7 |
| Sugarcane | 26.9 | 25.7 | 25.9 | 26.8 |
| Sugarbeet | 29.4 | 25.0 | 25.9 | 21.9 |

[1] Crop year, September/August.

Chart 290

## U.S. Sugar Prices




Wholesale: bulk, dry beet sugar. Retail: granulated sugar, beginning 1978 derived from CPI (Dec. 1977 = 100). N.Y. spot raw price is a 10-month average for 1977. Derived from London daily price for 1978.

**U.S. Sugar Prices**

| | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|
| | *Cents/pound* | | | |
| New York spot, raw | 8.52 | 9.09 | 10.29 | 29.50 |
| Wholesale[1] | 10.28 | 10.59 | 10.91 | 28.46 |
| Retail[2] | 13.62 | 13.90 | 15.10 | 32.34 |
| | 1975 | 1976 | 1977 | 1978 |
| | *Cents/pound* | | | |
| New York spot, raw | 22.47 | 13.31 | [3] 10.99 | [4] 13.93 |
| Wholesale | 27.47 | 16.50 | 14.66 | 17.16 |
| Retail | 37.24 | 23.96 | 21.62 | [5] 23.82 |

[1] Bulk, dry beet sugar. [2] Granulated sugar. [3] Ten-month average. [4] Derived from London daily price, pound sterling. [5] Derived from CPI (December 1977=100).

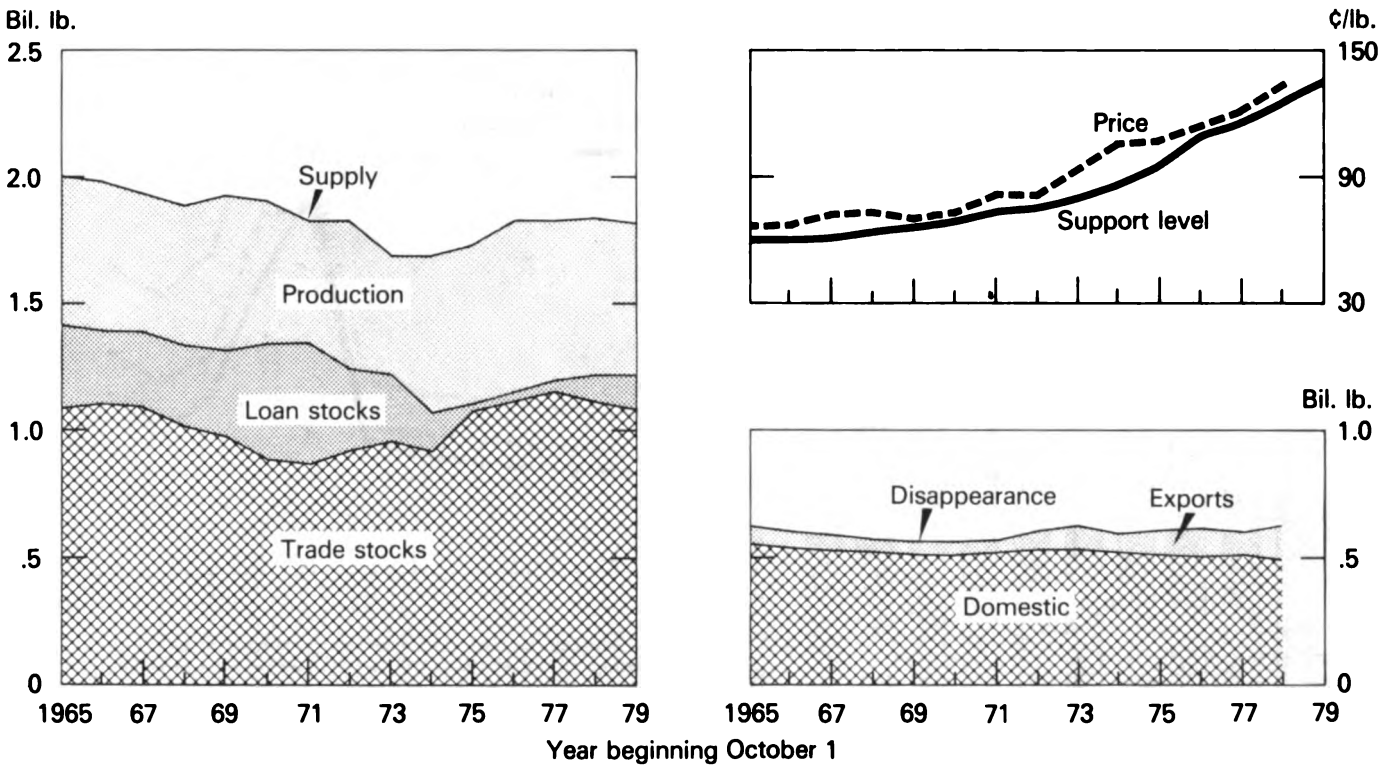
# TOBACCO

Domestic burley use continues below the 1964/65 peak as a result of leaf efficiencies by cigarette manufacturers and a decline in use of other tobacco products. Brisk demand for American-type blends abroad has failed to offset the reduced domestic use of recent years, although export demand strengthened in 1979.

The 1978 crop was slightly above 1977 levels, reflecting higher yields. With a larger carryover, the tobacco supply for 1979/80 is a little larger than last year. Prospective supply is about three times the expected disappearance—somewhat above the desired level based on legislative formula.

Chart 291

## Burley Tobacco: Supply, Price, Use




Trade stocks include manufacturers' and dealers'. Latest year forecast.

**Burley Tobacco: Supply, Price, and Use[1]**

| | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | *Million pounds* | | | | |
| Supply | 1,818 | 1,839 | 1,691 | 1,681 | 1,734 | 1,824 | 1,830 | 1,836 | 1,821 |
| Marketings | 472 | 591 | 461 | 610 | 640 | 664 | 613 | 618 | 596 |
| Trade stocks | 882 | 921 | 953 | 932 | 1,082 | 1,112 | 1,162 | 1,105 | 1,096 |
| Goverment loan stocks | 468 | 327 | 277 | 139 | 12 | 44 | 55 | 113 | 125 |
| Use | 570 | 610 | 619 | 587 | 603 | 617 | 611 | 615 | --- |
| Domestic | 515 | 535 | 532 | 519 | 511 | 500 | 495 | 490 | --- |
| Exports | 55 | 75 | 87 | 68 | 92 | 117 | 116 | 125 | --- |
| | | | | | *Cents per pound* | | | | |
| Average price | 80.9 | 79.2 | 92.9 | 113.7 | 105.6 | 114.3 | 120.0 | 131.0 | --- |
| Support level | 71.5 | 74.9 | 78.9 | 85.8 | 96.1 | 109.3 | 117.3 | 124.7 | 133.3 |

[1] Crop year beginning October 1. [2] Preliminary.

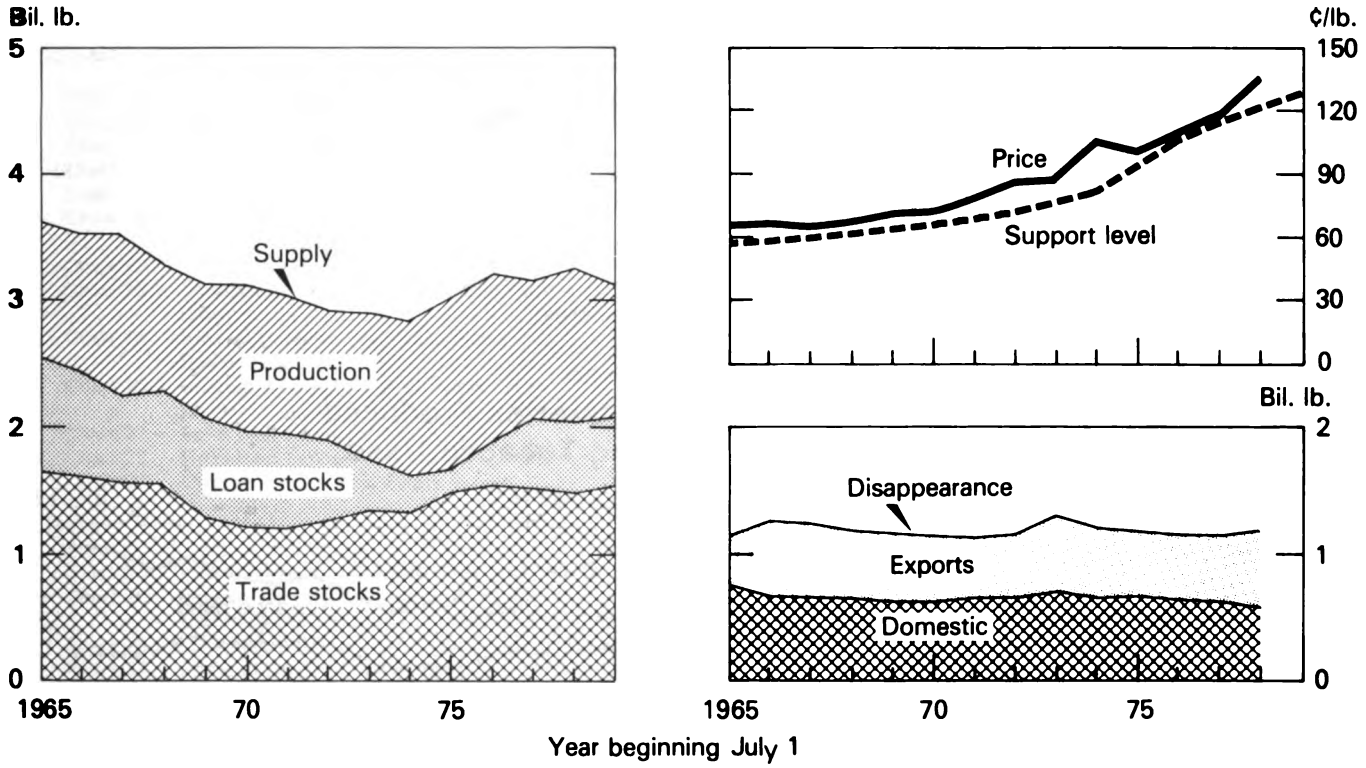
# TOBACCO

A smaller flue-cured tobacco crop is pulling the 1979/80 supply below last season. Flue-cured tobacco acreage for harvest this year was forecast 10 percent below 1978 as of due to a smaller acreage allotment. Yields will be off as well. To minimize fluctuations of carryover stocks, many growers left the four lower leaves unharvested.

This year's tobacco supply is more than twice the size of last year's use, and well above the desired ratio based on legislative formula. Carryover next July will decrease slightly. The relatively high U.S. price tends to restrict domestic use and limit exports, as well as encourage imports.

Chart 292

## Flue-Cured Tobacco: Supply, Price, Use




Trade stocks include manufacturers' and dealers'. Latest year forecast.

**Flue–Cured Tobacco: Supply, Price, and Use [1]**

| | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | *Million pounds* | | | | |
| Supply | 3,053 | 2,932 | 2,908 | 2,852 | 3,066 | 3,214 | 3,199 | 3,258 | 3,119 |
| Marketings | 1,077 | 1,022 | 1,159 | 1,245 | 1,414 | 1,316 | 1,124 | 1,206 | 1,043 |
| Trade stocks | 1,214 | 1,292 | 1,347 | 1,331 | 1,472 | 1,539 | 1,509 | 1,518 | 1,540 |
| Government loan stocks | 762 | 618 | 402 | 277 | 180 | 359 | 556 | 534 | 536 |
| Use | 1,142 | 1,183 | 1,301 | 1,200 | 1,193 | 1,148 | 1,147 | 1,182 | -- |
| Domestic | 662 | 664 | 703 | 652 | 671 | 634 | 608 | 583 | -- |
| Exports | 480 | 519 | 598 | 548 | 522 | 514 | 539 | 599 | -- |
| | | | | | *Cents per pound* | | | | |
| Average price | 77.2 | 85.3 | 88.1 | 105.0 | 99.8 | 110.4 | 117.6 | 135.0 | [3]140.0 |
| Support level | 69.4 | 72.7 | 76.6 | 83.3 | 93.2 | 106.0 | 113.8 | 121.0 | 129.3 |

[1] Crop year beginning July 1. [2] Preliminary. [3] Revised in August.

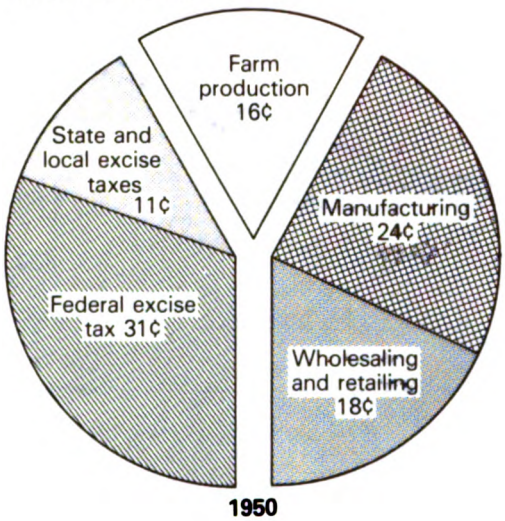
# TOBACCO

Consumer spending on tobacco products has increased gradually over the years, but the shares received by farmers and governments has shifted. For example, in 1959 U.S. tobacco growers got 16 cents of the consumer's tobacco dollar; in 1977 farmers received only half as much. Although the share taken for State and local excise taxes has gone up since 1950, the Federal tax share has declined.

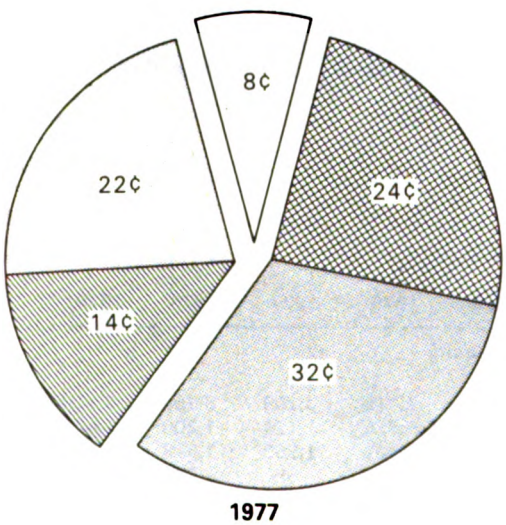
U.S. cigarette manufacturers used an estimated 1.2 billion pounds of tobacco (unstemmed processing weight) in cigarettes in 1978. This was about the same as the year before, although cigarette output picked up. Manufacturers have adopted a variety of leaf economizing measures.

Chart 293

## Where the Tobacco User's Dollar Goes



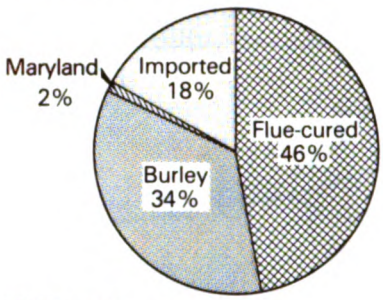

1950




1977

Chart 294

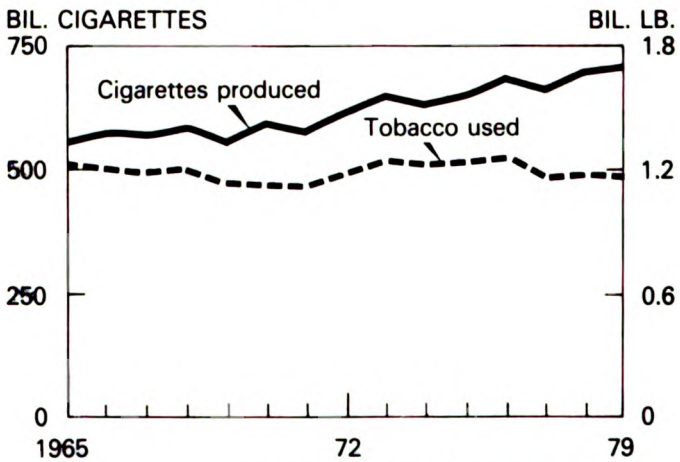
## Tobacco Use by Kind




1974-77 average.

Chart 295

## Cigarettes Produced And Tobacco Used




Billion pounds in unstemmed processing weight. 1979 preliminary.

**Cigarettes: Production and Tobacco Used**

| | 1976 | 1977 | 1978 | 1979[1] |
|---|---|---|---|---|
| | | *Billion* | | |
| Cigarette production | 693 | 666 | 696 | 705 |
| | | *Million pounds* | | |
| Tobacco used[2] | 1,245 | 1,186 | 1,180 | 1,170 |

[1] Preliminary. [2] Unstemmed processing weight.

# INDEX

## THE FARM

*Income*



*Assets and Finances*



*Prices*



*Inputs*



*Outputs*



*Farmer Cooperatives*



## NATURAL RESOURCES

*Land Use*



*Water*



*Other Resources*



## POPULATION AND RURAL DEVELOPMENT

*Population*



*Work Force*



*Income*

## FOOD AND NUTRITION PROGRAMS

*Food Assistance*



*Food Stamps*



*School Programs*



*Other Programs*



## FOREIGN PRODUCTION AND TRADE

*U.S. Trade*



*World Situation*



## COMMODITY TRENDS

*Livestock*



*Dairy*



*Poultry*

*Commodity Stocks*



*Wheat*



*Rice*



*Feed Grains*



*Grain Transportation*



*Fats and Oils*



*Fibers*



*Vegetables*



*Fruit*



*Tropical Products*



*Tobacco*

# HOW TO ORDER SLIDES AND PRINTS

On the reverse of this page is the form to order color slides and black and white prints of the charts appearing in the 1979 HANDBOOK OF AGRICULTURAL CHARTS.

COLOR SLIDES: You can get the complete set of all the charts in the book, in color, for $40. You can also get color slide sets that include only the charts in each of the seven major sections by marking the appropriate boxes (The Farm, Natural Resources, Population and Rural Development, etc.). You can also get color slide sets that include only the charts in each of the 47 subsections (The Farm: Income, Assets and Finances, etc.). See reverse of this page for prices. **Individual slides cannot be purchased.**

If you order the section slide sets you will receive a discount. You get a larger discount by purchasing the complete set of color slides at $40, which averages out to 14¢ per slide—a saving of over 21¢ per slide. The cost of the subsection slide sets is 35¢ per slide.

To order a set of color slides, place a check mark (✓) in the square to the left of the desired set. If you want to order more than one of any individual set, write the number of sets by the box: 2 or 5, for example.

BLACK & WHITE PRINTS: Fill in the chart number that appears at the top of the chart in the book and enter that number in the lower left corner of the order form, indicating one of these two sizes (5" x 7" or 8" x 10") at $3.30 each.

Make check or money order payable to the Office of Governmental and Public Affairs, USDA.

Mail to: Photography Division
Room 4407-S
Office of Governmental & Public Affairs
U.S. Department of Agriculture
Washington, D.C. 20250

# ORDER FORM (see reverse side for instructions)

| Color Slides Title | Order No. | Chart No. | Cost | Total No. of Slides |
|---|---|---|---|---|
| ☐ **Complete Slide Sets** | | | **$40.00** | **295** |
| ☐ **The Farm** | **A** | **1-44** | **$25.00** | **44** |
| ☐ Income | A-1 | 1-10 | 3.50 | 10 |
| ☐ Assets and Finances | A-2 | 11-23 | 4.55 | 13 |
| ☐ Prices | A-3 | 24-27 | 1.40 | 4 |
| ☐ Inputs | A-4 | 28-36 | 3.15 | 9 |
| ☐ Outputs | A-5 | 37-39 | 1.05 | 3 |
| ☐ Cooperatives | A-6 | 40-44 | 1.75 | 5 |
| ☐ **Natural Resources** | **B** | **45-64** | **6.50** | **20** |
| ☐ Land Use | B-1 | 45-53 | 3.15 | 9 |
| ☐ Water | B-2 | 54-60 | 2.45 | 7 |
| ☐ Other Resources | B-3 | 61-64 | 1.40 | 4 |
| ☐ **Population and Rural Development** | **C** | **65-91** | **9.00** | **27** |
| ☐ Population | C-1 | 65-70 | 2.10 | 6 |
| ☐ Work Force | C-2 | 71-76 | 2.10 | 6 |
| ☐ Income | C-3 | 77-78 | .70 | 2 |
| ☐ Housing and Health | C-4 | 79-82 | 1.40 | 4 |
| ☐ Education | C-5 | 83-86 | 1.40 | 4 |
| ☐ Small Farms | C-6 | 87-91 | 1.75 | 5 |
| ☐ **The Consumer** | **D** | **92-148** | **19.00** | **57** |
| ☐ General Economy | D-1 | 92-96 | 1.75 | 5 |
| ☐ Consumer Prices | D-2 | 97-103 | 2.45 | 7 |
| ☐ Food Marketing Costs | D-3 | 104-108 | 1.75 | 5 |
| ☐ Money Value of Food | D-4 | 109-115 | 2.45 | 7 |
| ☐ Nutrient Quality of Diets | D-5 | 116-122 | 2.45 | 7 |
| ☐ Food Consumption | D-6 | 123-131 | 3.15 | 9 |
| ☐ Clothing | D-7 | 132-133 | .70 | 2 |
| ☐ Energy and Transportation | D-8 | 134-137 | 1.40 | 4 |
| ☐ Housing | D-9 | 138-140 | 1.05 | 3 |
| ☐ Health Care | D-10 | 141-143 | 1.05 | 3 |
| ☐ Elderly | D-11 | 144-145 | .70 | 2 |
| ☐ Consumer Credit | D-12 | 146-148 | 1.05 | 3 |
| ☐ **Food and Nutrition Programs** | **E** | **149-168** | **6.50** | **20** |
| ☐ Food Assistance | E-1 | 149-152 | 1.40 | 4 |
| ☐ Food Stamps | E-2 | 153-160 | 2.80 | 8 |
| ☐ School Programs | E-3 | 161-164 | 1.40 | 4 |
| ☐ Other Programs | E-4 | 165-168 | 1.40 | 4 |
| ☐ **Foreign Production and Trade** | **F** | **169-188** | **6.50** | **20** |
| ☐ U.S. Trade | F-1 | 169-186 | 6.30 | 18 |
| ☐ World Situation | F-2 | 187-188 | .70 | 2 |
| ☐ **Commodity Trends** | **G** | **169-295** | **35.00** | **107** |
| ☐ Livestock | G-1 | 189-203 | 5.25 | 15 |
| ☐ Dairy | G-2 | 204-210 | 2.45 | 7 |
| ☐ Poultry | G-3 | 211-218 | 2.80 | 8 |
| ☐ Commodity Stocks | G-4 | 219-220 | .70 | 2 |
| ☐ Wheat | G-5 | 221-226 | 2.10 | 6 |
| ☐ Rice | G-6 | 227-232 | 2.10 | 6 |
| ☐ Feed Grains | G-7 | 233-242 | 3.50 | 10 |
| ☐ Grain Transportation | G-8 | 243-245 | 1.05 | 3 |
| ☐ Fats and Oils | G-9 | 246-256 | 3.85 | 11 |
| ☐ Fibers | G-10 | 257-268 | 4.20 | 12 |
| ☐ Vegetables | G-11 | 269-278 | 3.50 | 10 |
| ☐ Fruit | G-12 | 279-284 | 2.10 | 6 |
| ☐ Tropical Products | G-13 | 285-290 | 2.10 | 6 |
| ☐ Tobacco | G-14 | 291-295 | 1.75 | 5 |

**Black and White Prints**

| Chart No. (see reverse side) | Desired Size (see reverse side) | Quantity |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Color Slide Total Payment $ _____

Black & White Prints @ $3.30 ea. $ _____

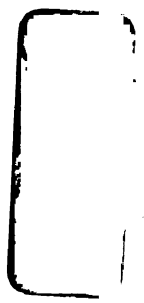
**Total Amount Submitted** $ _____

Please enclose check or money order made out to:
Office of Governmental and Public Affairs, USDA.

Mail to: Photography Division
Room 4407-S
Office of Governmental & Public Affairs
U.S. Department of Agriculture
Washington, D.C. 20250



☆U.S. GOVERNMENT PRINTING OFFICE: 1979 O— 632-041/41 REGION 3-1



United States Department of Agriculture
Washington, D.C. 20250

Official Business
Penalty for Private Use, $300

Postage and Fees Paid
U.S. Department of
Agriculture
AGR 101

Fourth Class
Special Handling