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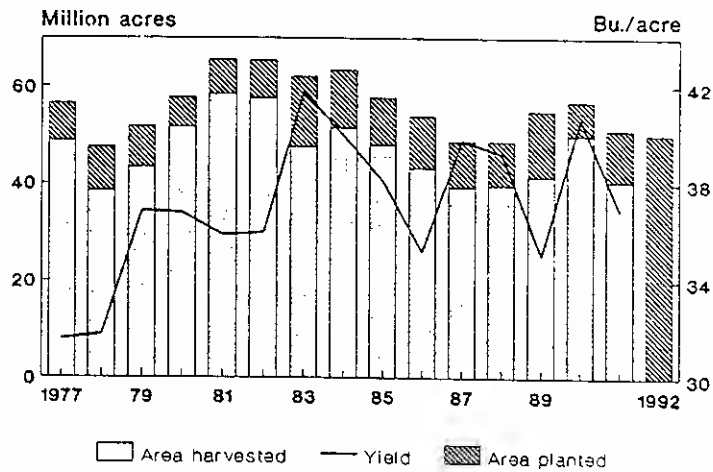
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Wheat

Situation and Outlook Yearbook

U.S. Winter Wheat Area and Yield



Contents

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Summary

U.S. 1992/93 Wheat Supplies Hinge on This Year's Crop

With U.S. 1992/93 carryin stocks forecast at less than half of year-earlier levels, the 1992 crop will have to rise almost 25 percent for supplies to match 1991/92. Production will likely increase, assuming normal yields, but the reported drop in winter wheat seedings will make a 25-percent increase less likely.

Winter wheat seedings were reported down 1.6 percent, despite an increase in area permitted to be planted by participants in the 1992 wheat program. Several factors likely contributed to the decline. The flexibility provisions of the 1992 wheat program decreased the number of acres eligible to receive deficiency payments, thereby reducing farmers' economic incentive to plant marginal land. Also, wheat prices were not as strong during planting as they are now. Finally, poor yields and quality problems in recent years likely discouraged some soft red wheat farmers.

Prospects for 1992 are for a larger crop, despite the smaller winter wheat seedings. Although several areas reported less-than-ideal winter wheat conditions in early February, there appears to be no compelling evidence that yield prospects are outside the range of average-to-trend levels.

At planting time this spring, spring wheat producers will see much stronger prices than their winter wheat counterparts did last fall. Thus, spring wheat acreage is expected to be up sharply. Based on futures prices, market returns not only favor planting wheat on wheat flex acres, but also on flex acres of other crop bases, such as barley and oats.

It is too early to make an assessment of some components of 1992/93 demand, such as export prospects; however, July

futures prices of wheat are now much higher than the prices of alternative feed ingredients, indicating that wheat feed use will drop sharply. The level of wheat feeding will also be influenced by how much of the crop is of poor quality.

Because U.S. stocks are very low, the size of the 1992/93 world wheat crop will be critical in determining prices. Assuming normal weather, especially in the former USSR, global wheat production will likely expand. Relatively high prices are expected to encourage pro-

ducers in Canada, Argentina, and Australia to expand area.

Agriculture Canada is forecasting 1992/93 wheat production at 29.4 million tons, which would be Canada's fourth largest crop on record. The Australian Government is also projecting a strong rebound in area to the largest since 1986/87. In Argentina, recent market liberalization, a strengthening economy, and higher wheat prices are likely to encourage increased wheat area.

THE WHEAT SITUATION AT A GLANCE

All wheat: Supply and disappearance 1/						
Year beginning June 1	1987	1988	1989	1990	1991	
				Estimated	Projected	
Million bushels						
Beginning stocks	1,821	1,261	702	536	866	
Production	2,108	1,812	2,037	2,736	1,981	
Imports	16	23	23	36	35	
Supply, total	3,945	3,096	2,762	3,309	2,882	
Domestic						
Food	721	726	753	796	775	
Seed	85	103	100	90	92	
Feed and residual	280	146	139	489	350	
Domestic, total	1,086	975	992	1,376	1,217	
Exports	1,598	1,419	1,233	1,068	1,175	
Disappearance, total	2,684	2,394	2,225	2,443	2,372	
Ending stocks	1,261	702	536	866	390	
Wheat by classes: Supply and disappearance 1/						
Year beginning June 1	Hard red winter	Hard red spring	Soft red winter	White	Durum	Total
Million bushels						
1990/91 (Estimated)						
Beginning stocks	215	155	32	85	50	536
Production	1,199	555	547	313	122	2,736
Supply, total 2/	1,414	717	579	408	192	3,309
Domestic disappearance	686	239	269	105	76	1,376
Exports	368	201	230	216	53	1,068
Disappearance, total	1,054	440	499	321	129	2,443
Ending stocks	360	277	80	87	62	866
1991/92 (Projected)						
Beginning stocks	360	277	80	87	62	866
Production	901	431	325	219	104	1,981
Supply, total 2/	1,262	723	405	308	184	2,882
Domestic disappearance	540	243	264	91	80	1,217
Exports	570	380	105	175	45	1,275
Disappearance, total	1,110	623	369	266	125	2,492
Ending stocks	152	100	36	42	59	390

1/ Includes flour and products in wheat equivalent.
2/ Total supply includes imports.

U.S. 1992/93 Wheat Supplies Hinge on This Year's Crop

With U.S. 1992/93 carryin stocks forecast at less than half of year-earlier levels, the 1992 crop will have to rise almost 25 percent for supplies to match 1991/92. Production will likely increase, assuming normal yields, but the reported drop in winter wheat seedings will make a 25-percent increase less likely.

Winter Wheat Seedings Down

Winter wheat seedings for the 1992 crop were reported down 1.6 percent, despite an increase in area permitted to be planted by participants in the 1992 wheat program. The acreage reduction program (ARP) was reduced from 15 percent to 5 percent and, given the high participation rates in the wheat program (85 percent in 1991), this could have been the basis for a significant increase in planted area. Moreover, tight supply and demand balances were forecast for the end of 1991/92, increasing the probability of good returns to growing wheat in 1992. However, several factors combined to offset the forces encouraging farmers to plant more.

At seeding time, prices had not increased to reflect USDA's forecast tight supply and demand. During the summer harvest months, farmer marketings of the 1991 crop were reported as particularly heavy, with the July-average price received by farmers only \$2.49 per bushel. By September that price had only rallied to \$2.80. While the national-average farm price reached \$3.25 by November, most planting decisions had been made by that time and much of the crop was already seeded.

Uncertainty over export prospects also tended to hold down wheat prices. The unravelling of the Soviet Union and its financial difficulties cast shadows of doubt over export prospects. Moreover, there was considerable concern about trade relations between China and the United States, especially with regard to the granting of most-favored-nation (MFN) status to China. Numerous press reports questioned whether China would continue to purchase wheat from the United States.

More base acres are subject to the non-payment provisions of normal flexibility acres (NFA) in 1992 than in 1991.

This may be an important factor limiting winter wheat area in 1992. Because the 1990 farm legislation was not signed before winter wheat planting, a special 1-year winter wheat option was offered to producers for the 1991 crop. Instead of receiving deficiency payments on 15 percent fewer base acres, winter wheat producers could use the option to receive deficiency payments at a slightly lower payment rate. The winter wheat option was not offered for the 1992 wheat crop.

Farmers had to make planting decisions for 15 percent of their base acreage solely on the basis of expected costs and market returns, without government payments. Wheat is often grown in dry areas, where the practice of leaving the land fallow to accumulate moisture can enhance future yields. Farmers may have thought that wheat prices did not justify planting their most marginal land, especially without the incentive of a government payment, so there was less reason to take advantage of the reduced ARP.

Soft red winter wheat (SRW) yields in 1991 averaged only 34 bushels per acre, down for the third straight year since the 49-bushel-per-acre record in 1988. Yields were hurt by disease problems, and mycotoxin contamination of wheat was reported in several areas. SRW is grown mostly in the States along the Mississippi River and to its east. Many producers there do not depend on wheat for a large portion of their income. Some may have decided not to grow wheat because of the yield and quality problems they have had in recent years. Moreover, participation in the wheat program is lower in this area than in other regions, so the reduced ARP was not as important a factor for SRW as it was for other classes of wheat.

Kansas was hit by a prolonged dry spell during the wheat planting and emer-

gence stages, which likely discouraged some producers from increasing plantings.

In Texas and Oklahoma, a large portion of planted wheat area is not usually harvested for grain. Instead, producers often use wheat for haying or grazing for livestock. Many farmers plant all, or more, of their wheat base. As a result, the decline in wheat area planted in Texas does not necessarily mean that less area will be harvested, as strong wheat prices will likely cause a sharp increase in the percentage of acreage harvested for grain.

Seedings Boost Price Prospects

Most early forecasts of winter wheat area were 2 to 6 million acres above the USDA's reported planted area, consequently, most production forecasts for 1992 dropped by 100-200 million bushels. However, several factors are expected to soften the production impact. As wheat prices have increased, the incentives to plant more spring wheat have become very strong. Moreover, in areas where late plantings are possible some increase in plantings is likely. But with late-planted wheat yielding much less than normal, the increased plantings may not be significant.

High prices are likely to encourage farmers to harvest a larger-than-normal portion of planted area. Also, the portion of planted area that is harvested for grain is likely to increase because of the lower ARP requirements. However, the extent that the crop is damaged severely by bad weather or disease will also affect how much is harvested.

Supply Prospects Tight

The forecast for June 1, 1992, carry-in stocks is 390 million bushels, the lowest since 1974 (1952 before that), and less than half the 866 million bushels of a

year earlier. Moreover, 150 million bushels, a significant portion of the forecast carryover, is to be in the CCC's food security reserve, further shrinking supplies available to the market. New-crop supplies do not become available in many areas for several months, so old-crop free stocks will be needed to maintain domestic use and exports, especially during June.

Production prospects for 1992 are for a larger crop, despite the smaller winter wheat seedings. Although several areas reported less than ideal conditions in early February, there appears to be no compelling evidence that yield prospects are outside the range of average to trend levels.

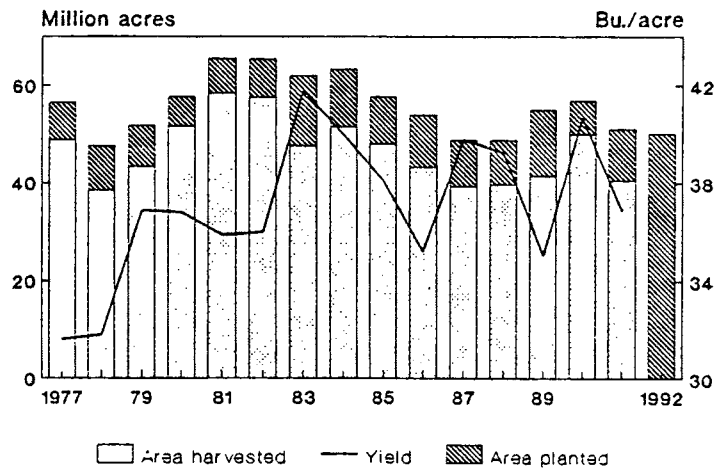
Total supply in 1992/93 is likely to be less than 3 billion bushels for only the third time since the 1970's. Even if spring wheat producers increase area sharply, the decline in winter wheat seedings makes the prospects of a crop over 2.5 billion bushels unlikely.

Demand Prospects Down

It is too early to make an assessment of some components of 1992/93 demand, such as export prospects; however, July futures prices of wheat are now much higher than the prices of alternative feed

Figure 1

U.S. Winter Wheat Area and Yield



ingredients, indicating that wheat feed use will drop sharply. The level of wheat feeding will also be determined by how much of the crop is of poor quality.

Food use is not considered to be very sensitive to changes in wheat prices, and population growth and changes in tastes and preferences are likely more important, so the 1992/93 prospects are for continued slow growth. Seed use is too small to have much effect on the overall supply and demand balance.

Program Provisions for 1992/93

The target price remains at \$4.00 per bushel in 1992/93. The announced loan rate is \$2.21 per bushel, while the basic loan rate is \$2.58. The ARP is 5 percent. The projected deficiency payment rate is \$0.65 per bushel, with advanced deficiency payments of \$0.26 per bushel. "Flex" acreage provisions apply to all wheat farmers participating in 1992/93. Program payment yields remain unchanged, and 0/92 provisions remain available. (Ed Allen (202) 219-0840)

Output in the Former USSR Key to 1992/93 Prospects

In 1991/92, world wheat production is estimated down 8 percent, but still remains the second highest on record. The largest drop occurred in the former Soviet Union and the United States, who also account for the 2-percent decline in world consumption. World stocks and the global stocks-to-use ratio are relatively low but remain above those of 1988/89 and 1989/90. A price shock similar to that of the early 1970's is unlikely in 1992/93.

Because U.S. stocks are very low, the size of the 1992/93 world wheat crop will be critical to determining prices. Assuming normal weather, especially in the former USSR, global wheat production will likely expand. While prices are likely to remain relatively firm, it would take simultaneous crop failures in major importing and exporting countries to repeat the price shocks of the 1970's.

Relatively high prices are expected to encourage producers in Canada, Argentina, and Australia to expand area. Agriculture Canada is forecasting 1992/93 wheat production at 29.4 million tons, which would be the fourth largest crop on record. The Australian Government is also projecting a strong rebound in area to 10.2 million hectares, the most since 1986/87. Average yields (1985/86 to 1991/92) would produce a crop of about 15 million tons, 50 percent higher than the forecast 1991/92 crop. Recent market liberalization, a strengthening economy, and higher wheat prices are likely to encourage increased area in Argentina.

European Community (EC) area is not expected to contract significantly, if at all. A special 1-year set-aside program instituted for the 1992/93 crop apparently has failed to attract many participants. High yielding bread-wheat varieties are gaining popularity in France, which might contribute to increased yields there.

Winter grain area in the former Soviet Union is reported up and, while yields will largely depend on weather conditions, disruptions in the production and the delivery and use of inputs may limit yield potential. However, given normal weather, wheat production is expected to increase from 1991/92.

China encouraged winter wheat planting by raising its government purchase price. However, dry fall weather created poor planting conditions and area was likely reduced from 1991/92.

Planting conditions were favorable in India and Pakistan and irrigation supplies there remain plentiful as well. However, in India, dryness in rainfed areas has led some analysts to project a drop in production from the 1991/92 record. In addition, some shift in area from wheat to rapeseed took place because rapeseed support prices were higher relative to wheat.

In North Africa, favorable moisture conditions encouraged winter wheat planting, but dryness is a major concern, particularly in Morocco where winter precipitation failed to materialize. Winter wheat is reaching its moisture sensitive heading stage and rain will be critical in the coming weeks. Conditions in Algeria and Tunisia are less severe because of rains in January.

World Conditions Were Different in 1972/73

Recently, some analysts have raised concerns about low world stocks, suggesting that the world wheat market may be headed into a grain crisis similar to that experienced in the early 1970's. However, the wheat market is considerably different than it was then.

In 1972/73, a modest 2-percent drop in world production, and a major shift in Soviet trade policy toward larger imports, led to a sharp decline in world stocks. World wheat trade expanded 29 percent, stocks fell 16 percent, and the stocks-to-use ratio fell to what is still a record low.

Major shifts in the world's economy were occurring. A surge in energy and petroleum prices, rapid inflation, and major adjustments in the world monetary system contributed to the surge in grain prices. China's wheat imports expanded 78 percent from 1971/72 to

Figure 2
U.S. Wheat Export Prices

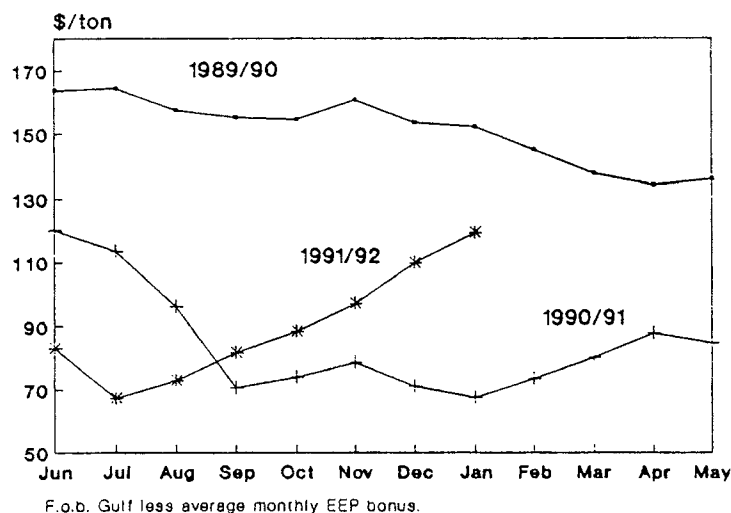


Figure 3

World Wheat Stocks-to-Use Ratio

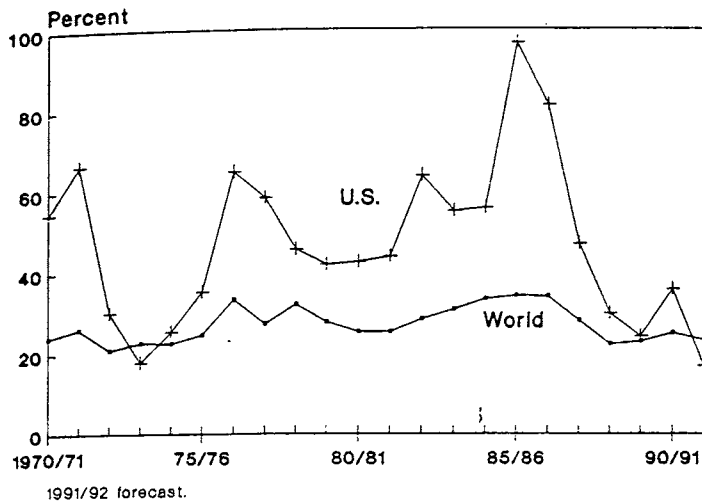
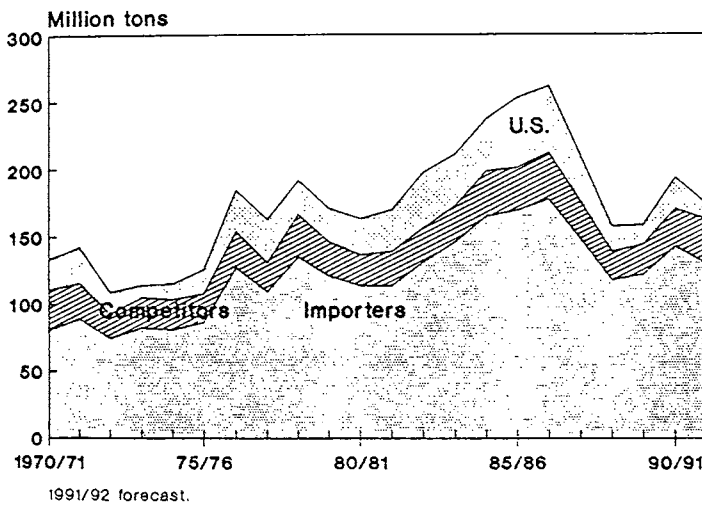


Figure 4

World Wheat Stocks



1972/73 and rising incomes in developing countries led to increased import demand for grains. In addition, a poor Asian rice crop in 1972/73 contributed to larger wheat imports to substitute for rice.

Competitor stocks were low and fell by a third by the end of 1972/73. The United States was the primary source of supply when world trade surged. Because export sales reporting was not required, the market was caught off guard by the large Soviet purchases, contributing to the sudden increase in prices. Export prices soared 46 percent in 1972/73 from the previous year, and nearly doubled in 1973/74 to \$177 per ton (\$478 per ton in 1991 dollars).

Conditions are considerably different in 1991/92. The world wheat crop is estimated down 8 percent from last year's record, but it remains the second highest on record. Importer stocks are higher, providing a deeper cushion when production falls or exporter supplies are tight.

While the former Soviet Union, the United States, and Australia experienced sharp production declines in 1991/92, the EC and Canada achieved record crops. Because the EC and Canada also hold near-record stocks and some smaller exporters (Turkey, Saudi Arabia, and Eastern Europe) have large surpluses, foreign export supplies are higher than in 1990/91.

In addition, while prices have strengthened considerably since the beginning of the marketing year, the dramatic price increases experienced in the early 1970's are not expected to occur.

Wheat export prices (the U.S. f.o.b. Gulf price, less the average monthly EEP bonus) rose 44 percent between June and February 1991 (to an average of \$119 per ton in January), but remained close to the 1985/86 to 1990/91 average. Much of the increase can be attributed to the sharp rise in wheat imports by the former Soviet Union and unexpectedly high imports by China. However, large crops in several other major importing countries, including North Africa, have led to only slightly higher imports by other countries.

GATT Update

On December 20, the General Agreement on Tariffs and Trade (GATT) Director-General Arthur Dunkel released a draft final agreement covering all of the negotiating areas of the Uruguay round, including agriculture. This document is the focus of the current negotiations of the round.

President Bush's meeting with EC President Delors at the Hague, the Netherlands, in early November, gave new momentum to the round and spurred intensive negotiations at all levels. On November 21, the Director-General released a draft agriculture working paper that consolidated and refined earlier Secretariat papers to reflect the most current positions of the contracting parties. Largely based on the draft working paper, Dunkel submitted a draft agricultural text on December 12. This draft text served as the model for the agriculture section submitted with the draft final agreement on December 20.

The Trade Negotiations Committee, made up of representatives from all of the participating countries, met in Geneva on January 13 to report their general reactions to the draft agreement. While many countries, including the United States, voiced concerns over specific sections of the draft, their comments were generally positive. The Dunkel text has set a workplan to guide the negotiations to a conclusion. On March 1, all countries must submit a country plan that details their commit-

ments under the agreement for review by the other countries in the negotiations. This review period will end on March 31, and the final agreement is scheduled to be completed on April 15.

While there is not a final document to be accepted or rejected, it does reflect the Director-General's effort to strike a compromise across all of the negotiating areas. This will make any dramatic changes difficult to include in a final document submitted by the GATT Secretariat. In several areas, including agriculture, Mr. Dunkel was unable to secure a consensus among the participants and proposed his own solutions. Therefore, the draft represents his attempt to resolve many contentious issues. The draft includes specific disciplines in all four areas of the agricultural negotiation: market access, export competition, internal support, and sanitary and phytosanitary measures. The section on

agriculture includes proposals to reduce the volume of subsidized exports by 24 percent from a 1986-1990 base period and cut the value of export subsidies up to 36 percent.

According to the proposal, nontariff barriers are to be converted into tariffs. During the implementation period (1993-99), tariffs are to be reduced by 36 percent on a simple-average basis for all commodities, with a minimum 15-percent reduction for each tariff line item.

A minimum market access of 3 percent of 1986-88 consumption was proposed, increasing to 5 percent by 1999. Trade distorting domestic support programs are to be reduced by 20 percent from the 1986-88 base period during the implementation period. Policy changes implemented since 1986 will be taken into account.

Developing countries can apply for lower reductions in the areas of tariffs, export subsidies, and domestic support programs. They have 10 years to implement the reductions in all 3 areas. The participants are to agree to continue the trade reform process, beginning in 1998, 1 year before the end of the initial implementation period. The text also includes a proposal to establish a multilateral framework to minimize the effects of sanitary and phytosanitary restrictions on trade.

The text has minuses as well as pluses for all participants, including the United States. Nevertheless, Dunkel's draft final agreement text establishes the basis for long-term movement toward fairer trade for agriculture. The United States will be discussing its concerns and other issues in Geneva in the coming weeks. (Sara Schwartz (202) 219-0825)

Southern Hemisphere's Harvests Completed

Southern Hemisphere producers have harvested their 1991/92 wheat crops. Australia's crop was down sharply from a year earlier as a result of reduced area and drought. Area was also down in Argentina.

In May, Australian farmers were discouraged from planting wheat because of low farm prices and poor economic prospects. Area is estimated to be the lowest since 1972/73. Then, drought brought down yields in Queensland and New South Wales. While the crop in West and South Australia were largely unaffected by drought, production in those States was not enough to offset the losses in the east. Total production is estimated at 10 million tons, 34 percent below 1990/91.

This year (1991/92) has been devastating for Australian farmers. The drought will reduce producer incomes, despite the anticipated increase in wheat prices. In the past, when wheat prices have been low, Australian farmers have generally turned to raising sheep. But wool prices also fell dramatically in 1991. Sugar and cotton prices are projected down sharply as well. According to the Australian Bureau of Agriculture and Resource Economics (ABARE), net farm cash income will decline by over 25 percent from a year earlier, and the net value of farm production is forecast to be the lowest on record, down 75 percent from 1990/91.

Australian exports are forecast at 7.1 million tons for the July/June international marketing year, down 40 percent from 1990/91. Exports in Australia's marketing year (October/September) are projected down even more, 42 percent from 1990/91. Reports indicate that sales to Egypt, Japan, and Pakistan, among others, will be curtailed.

Argentina's production is estimated at 8.5 million tons, down 19 percent from 1990/91. In May, when Argentine farmers planted the crop, wheat prices were low, economic prospects were uncertain, and fears remained that export taxes might be reimposed. Area declined 21 percent to 4.5 million hectares. Since then, the economy has strengthened, foreign-trade taxes have been abolished—reducing the cost of imported inputs, and the transportation sector has been deregulated—which should reduce the cost of grain marketing and export.

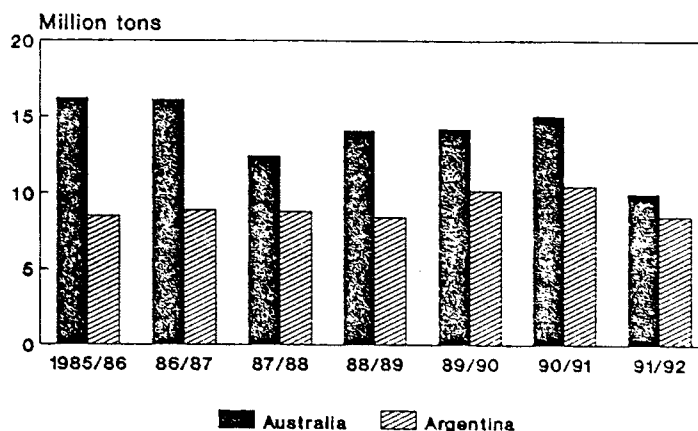
Argentina's harvest was marred by heavy storms in late December and early January; however, much of the wheat crop had already been harvested. The crop in northern Buenos Aires Province was reportedly damaged by heavy winds and standing water in the fields, which delayed harvest and reduced the quality of the grain. Prices rose sharply at the end of January in response to prospective tight supplies. Reports indicate that farmers are holding back part of their crop in hopes of getting even higher prices in the coming months.

Exports are forecast at 5.5 million tons, up 17 percent from 1991/92 for the July/June year. The increase is due to delayed shipments of the 1990/91 crop. Brazil is once again expected to be the primary destination for Argentina's wheat. In Argentina's marketing year (November/October), exports are forecast at 4.1 million tons, down 24 percent from 1990/91.

Brazil's wheat crop is estimated at 3.2 million tons, only slightly exceeding last year's very low crop. Brazil's farmers reduced area 27 percent, as low prices and lack of access to production credit discouraged wheat producers from planting. In 1991/92, production is estimated to be the equivalent of 44 percent of consumption and imports are projected at 3.5 million tons.

South Africa's wheat crop is forecast at 2.2 million tons, up nearly 30 percent from 1990/91 when drought severely reduced the crop and stimulated wheat imports. This year, adequate rains led to a more normal crop and further wheat imports are unlikely. (Sara Schwartz (202) 219-0825)

Figure 5
Wheat Production in Australia and Argentina



1991/92 forecast.

World Wheat Trade Surges to New Record in 1991/92

World wheat trade is forecast at 108 million tons, exceeding the 1984/85 record. Trade is being buoyed by expectations of continued strong imports by the former Soviet Union and China.

A poor 1990/91 wheat crop and political, economic, and financial turmoil are fueling import demand in the former USSR. The 1991/92 wheat crop there is estimated at 78 million tons, down 28 percent from 1990/91. Production of high-quality wheat in the New Lands, especially Kazakhstan, was reduced by drought. Winter wheat production, especially in Ukraine, was also reported down. State procurements of grains also fell.

Recently the former USSR has financed nearly all of its wheat imports with credit, grants, or other arrangements with the United States and other exporting countries, and since January 1991, the United States has provided the former USSR with \$3.75 billion in credit guarantees. The most recent allocation of \$1.25 billion was announced in November 1991, and \$650 million was released soon after the announcement. Another \$200 million was released on February 11, with \$95 million allocated for wheat purchases. In March, \$200 million will be released, with \$80 million allocated for wheat purchases.

The remaining \$250 million in credit will be released in April. Of the \$1.05 billion allocated as of February 13, approximately 40 percent was designated for wheat purchases. The remaining credit guarantees for sales of U.S. agricultural commodities to the Soviet Union may be delivered to any of the 11 former Soviet republics (Ukraine has chosen not to participate in this phase of the export credit guarantee program). Any eligible buyer in any of the republics can now purchase commodities under USDA's Export Enhancement Program (EEP). Previously, only Exportkhleb, the USSR's central purchasing arm, was eligible.

The EC and its members have also provided the former USSR with credits for grain and other commodities and have arranged barter agreements with indi-

vidual republics. The EC is still negotiating with the former USSR for the release of 500 million European Currency Units (ECU's), part of a 2-billion-ECU credit package announced in 1990, for the purchase of agricultural commodities, some of which may be from East European countries.

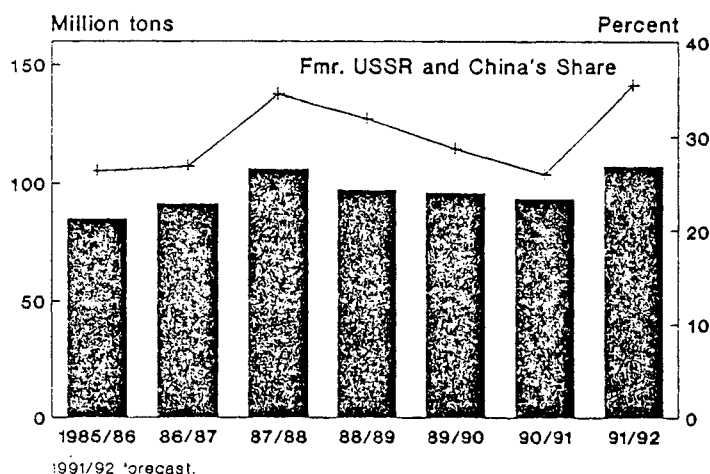
Other recent arrangements include a 2-billion-French-franc export credit agreement with Russia. The agreement would include, but is not limited to, wheat and barley. Germany provided 2.5 billion deutschemarks for sales of its agricultural commodities, including wheat and barley.

In early February, Canada and the Russian Republic signed a new 5-year grain agreement that supersedes the 2-year extension of the long-term agreement Canada had made last November with the former USSR. The terms for the new agreement are similar to the earlier one, providing for 25 million tons of grain trade over 5 years. Grain delivered to Russia after February 1, 1992, will apply to the new agreement, including grain purchased—but not delivered by February—under the Canadian

Wheat Board \$1.5 billion credit line for 4 million tons of wheat and barley. The remainder of the credit will be made available to cover purchases of grains marketed by the Canadian Wheat Board.

While credit and barter arrangements have covered the purchase of most of the grain being imported into the former USSR, problems arranging for shipment have occurred. The former USSR fell behind in its payment for shipping costs, resulting in delays of grain shipments. So, since November, much of the U.S. wheat purchased was C & F, with freight costs included in the credit package under a separate allocation. However, when the credit guarantee allocation for freight was exhausted, few sales of U.S. grain to the former USSR occurred. On January 23, USDA announced that \$93.8 million of the remaining \$600 million of credit guarantees (allocated in December 1991 for various commodities) could be used for freight or commodities, thereby facilitating the sale and delivery of U.S. grains.

Figure 6
World Wheat Trade and Former USSR and China's Share



The financial situation in the former USSR and how grain exporters respond will have important implications for the world grain market in 1992/93. The USSR has represented 18 percent of the world's wheat imports since 1985/86. The former Soviet republics' import needs and their ability to pay will likely remain an issue for the next several years. The extent to which exporters are willing to finance the republics' grain purchases is likely to be the key factor in determining the level of world wheat trade.

China's 1991/92 wheat production is estimated at 96 million tons, just below last year's record. Despite the large crop, China's imports are projected to surge to 15 million tons, 58 percent higher than 1990/91. Last year's record grain crops led to abundant stocks. However, rising incomes in both rural and urban areas have stimulated the demand for wheat products. The State is leaving more wheat in rural areas and importing more wheat to meet the growing gap between urban supply and demand. Supplying wheat to urban areas is also a political decision. China is reducing subsidies in a number of sectors, but has decided to maintain a cheap food policy in urban areas in an attempt to reduce political conflicts. Low wheat product prices stimulate use and the need for imports.

Imports by the Rest of the World To Rise Only Slightly

The increase in imports by the former Soviet Union and China in 1991/92 world trade is masking the only marginal rise in imports by the rest of the world. Excellent 1991 crops in North Africa, falling consumption in Eastern Europe, and Iraq's inability to pay for imports are all contributing to the decline. Rising wheat prices also inhibit developing countries' ability to pay for imported wheat.

Wheat imports by North African countries are forecast down 15 percent. Record wheat crops were grown in Egypt, Morocco, and Tunisia. Morocco and Tunisia are forecast to reduce wheat imports by more than 30 and 50 percent, respectively, and Algeria is projected to cut imports by 13 percent to 4 million tons. Prospects of a poor 1992/93 crop

in Morocco are keeping the region's imports from falling farther in 1991/92.

Egypt's imports are forecast down for several reasons. Wheat production increased 12 percent to a record 4.8 million tons. But, Egypt still needs to import over 50 percent of its annual consumption. Imports of wheat from Australia will be down because of tight supplies there. It is unclear whether Egypt can offset the reduction in those imports with wheat from other sources. Rising wheat prices will likely reduce the amount of wheat Egypt can purchase with credit and food aid received from donors (compared with purchases made at the same time a year ago).

East European countries are trying to cope with abundant wheat supplies and falling consumption. Price liberalization across the region has led to a sharp decline in wheat consumption. Rising meat prices have led to reduced demand for livestock products and feed use of wheat has dropped in response. Feed use of wheat is estimated to have comprised about 36 percent of total consumption in the 1980's. In addition, rising prices of wheat products in the market has reduced waste, contributing to the consumption decline.

Imports are projected down 25 percent to 1.5 million tons, with Romania accounting for a third of the region's imports. Romania's crop was damaged by adverse weather, and like the former Soviet Union, state procurements are down, forcing the government to import wheat to cover consumption. Imports by Bulgaria, food aid to Albania, and durum imports by Poland account for the rest.

Poland, Czechoslovakia, Hungary, and Yugoslavia have been trying to find ways to export this year's surplus wheat supplies. Previously, the former Soviet Union and other countries in the region were the primary destination for grain from these countries. With large crops in most of the region, the lack of hard currency to pay for imports has reportedly led to numerous barter arrangements with the former Soviet Union. However, it is unclear whether the former Soviet Union will be able to deliver the oil, natural gas, and other barter goods to pay for Eastern Europe's grain. The triangular credit arrangement be-

tween the former Soviet Union and the EC which would allow the former USSR to purchase agricultural commodities from Eastern Europe with EC credit, and if carried out, would help siphon off some of the region's wheat.

Imports by Latin American countries are forecast up 11 percent, with Brazil accounting for most of the increase. Brazil's imports are projected to rise 21 percent because of 2 consecutive years of poor crops and delays in Argentine shipments early in the marketing year. Argentina will continue to dominate the import market because of preferential tariff agreements, which allow its wheat to enter Brazil with a 7-percent tariff and no port taxes versus a 20-percent tariff and taxes equal to 25 percent of the port costs for wheat from other major exporters. However, because Argentina's crop is down from a year ago and prices there have recently increased sharply, export opportunities may open up for other suppliers later in the year if Argentina cannot meet Brazil's requirements at a competitive price.

Iraq's imports are projected at 2.5 million tons, 26 percent less than 1989/90. The U.N. is allowing Iraq to import food for humanitarian purposes, but Iraq continues to have problems financing food imports and has resisted U.N. conditions for the sale of oil to pay for food. Some countries have offered credit to Iraq, and it is likely that some of this credit was used to purchase wheat from the EC and Australia. The United Kingdom also released Iraq's frozen assets which Iraq then used to purchase UK wheat. The rest of the Middle East's imports are forecast to nearly match those of 1990/91.

South Asian imports are projected up 47 percent to 5.3 million tons. Bangladesh and Sri Lanka are forecast to increase imports, as is Pakistan. Pakistan's imports are forecast to more than double to 2 million tons. Pakistani Government stocks are low and the size of private stocks is uncertain. Recent shortages of wheat supplies, particularly in the Punjab where rationing occurred late in 1991, is encouraging the government to import more wheat. In the past, over 90 percent of Pakistan's imported wheat has come from the United States. Recently, the private sector has been buying wheat from nontraditional sources,

including Saudi Arabia and Turkey, seeking lower prices. The government has also been seeking out alternative sources, including Australia and Canada, for political reasons.

India's wheat crop reached a record 54.5 million tons in 1991/92. However, wholesale wheat prices have risen despite government efforts to keep the market supplied by releasing more wheat each month than in any previous year, except those following serious droughts. In January, India announced that it would import 1 million tons of wheat in 1992 in response to rising domestic prices and expectations of a re-

duced 1992/93 crop. The announcement will probably coax some privately held stocks into the market. The government has recently scaled back its wheat export program which began when supplies were abundant.

East Asian imports are forecast up 2 percent. Japan is projected to increase imports as a result of a poor domestic crop. Also, because Australia's crop is greatly reduced, particularly its prime hard grade of wheat, Japan may turn to the United States or Canada to make up for shortfalls in Australian shipments. South Korea's imports are projected up because of strong feed-wheat imports

purchased earlier in the marketing year. Feed-wheat purchases ceased when wheat import prices rose above corn prices.

Southeast Asia's wheat imports continue to rise as consumption patterns shift to include more wheat products. Wheat has also become an important feed ingredient for aquaculture in several countries, such as Thailand, where shrimp is a major export commodity.

Imports by Sub-Saharan African countries are forecast to be nearly equal those in 1990/91. (Sara Schwartz (202) 219-0825)

Competitors Increasing Exports and Holding More Stocks

Production shortfalls in Australia and Argentina will constrain their exports, but record crops and large stocks in Canada and the EC will help offset those declines.

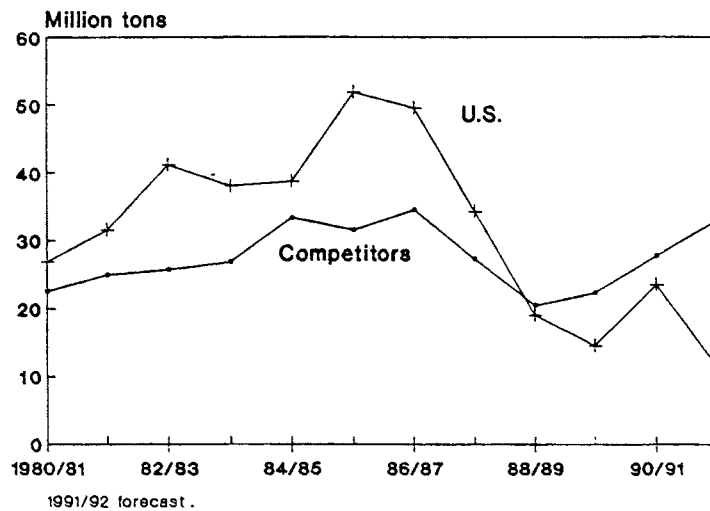
EC wheat production is estimated at a record 90.3 million tons. In addition, large beginning stocks have boosted the Community's supplies and exports are forecast at 23 million tons. Unlike previous years, the EC is exporting greater quantities of wheat directly out of intervention stocks, rather than from open market tenders. Despite prospective record exports, ending stocks are forecast at a record 19 million tons.

Canada, too, produced a record wheat crop and is holding large stocks. Canada entered 1990/91 with 10.3 million tons of stocks, the highest since 1987/88. Despite forecast record exports of 24 million tons, stocks are expected to rise to nearly 12 million tons by the end of the year. Canada's export pace during the first half of the marketing year has been proceeding rapidly, with large shipments made to the former USSR, China, and Brazil. While shipments to the former USSR slowed late last year, Canada's overall export pace remains strong.

EC and Canadian stocks are acting as a damper on export prices and cushioning the impact of reduced U.S. supplies at a time when world imports are high. Canada and the EC are both offering export credits to the former USSR and competitive prices to China, and both are competing with the United States in North Africa. Assuming normal weather, both Canada and the EC are likely to have larger exportable supplies in 1992/93.

Australia and Argentina are forecast to export 23 percent less wheat in 1991/92 than in 1990/91 (as explained in "Southern Hemisphere Harvests"). Smaller exporters, including Turkey and Saudi Arabia, harvested record crops in 1991/92. Turkey is forecast to export 4 million tons, Saudi Arabia 2.8 million tons, and Eastern Europe over 4 million tons, up 80 percent from 1990/91. (Sara Schwartz (202) 219-0825)

Figure 7
U.S. and Competitor Wheat Stocks



U.S. Exports To Surge Despite Reduced Supplies

The U.S. export forecast is supported by the strong pace of U.S. grain sales to date, expectations of more sales to the former USSR, and government programs such as EEP and GSM credits.

U.S. exports for 1991/92 are forecast at 34.7 million tons (1.275 billion bushels on a June/May year), 23 percent above 1990/91. The U.S. share of the world market is forecast to increase to 32 percent. The large increase in sales to the former Soviet Union and China account for much of the gain, but increased sales to Japan, Pakistan, and Brazil also support the increase.

As U.S. supplies have tightened, export prices have strengthened. In January, export prices (as represented by the f.o.b. Gulf price for HRW No. 2, less the weighted-average monthly EEP bonus for all classes of wheat) were about \$119 per ton, more than 77 percent higher than a year earlier, and 78 percent higher than in July. Despite the rapid runup, export prices for U.S. wheat remain well below 1988/89 and 1989/90, when drought drove prices up.

Part of the explanation is that U.S. supplies are tight, but EC and Canadian stocks are abundant. And, unlike 1988/89 and 1989/90, EEP bonuses remain high because of the continued strong competition in major markets.

The former Soviet Union chose to use most of the credit allocation announced in November for wheat. According to *Export Sales Report* of February 6, the former Soviet Union has purchased 5.2 million tons of U.S. wheat, nearly 3 times as much as at the same time a year ago.

By the end of October, China's purchases of U.S. wheat already exceeded 1990/91 by 27 percent. Then, it purchased another 1.1 million tons of wheat in November and early December for a total of 3.7 million tons. Imports by North African countries are down, as expected, partly because of their large crops, but also because competition

with the EC for smaller markets has been fierce.

The East Asian countries, including Japan, Taiwan, and South Korea, also appear to be willing to pay the high f.o.b. Gulf port prices. U.S. exports to the region will likely rise as some countries substitute U.S. wheat for imports from Australia, where supplies contracted because of drought.

Between June and the end of January, EEP sales equalled 15.4 million tons, compared to 9.5 million tons a year earlier. Average EEP bonuses rose from \$38.05 a ton in June to a high of \$58.84 in October, but have recently begun to slide back toward \$50 per ton. The average EEP bonus in January represented 30 percent of the quoted f.o.b. Gulf price, down from 40 percent in October.

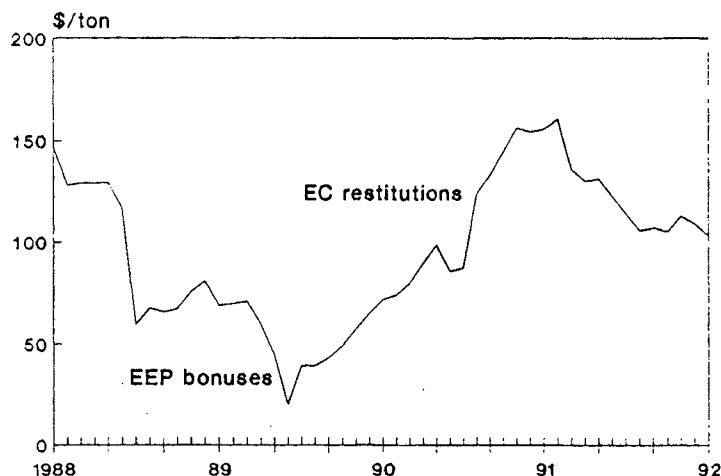
P.L. 480 Title I wheat and flour sales are much slower in fiscal 1992 than in fiscal 1991. As of February 7, about 50,000 tons of wheat had been sold, compared with about 285,000 tons at the same time last year. Costa Rica, El Salvador, and Tunisia, which had purchased relatively large amounts by this time last

year, had yet to purchase this year. A fiscal 1992 agreement with Egypt for \$150 million of wheat and flour was signed in January. As of late January, 1.8 million tons of wheat and flour were allocated for the fiscal 1992 Title I program as a whole. Wheat and flour approvals under P.L. 480 Title II were about 540,000 tons.

As of February 7, 1992, GSM-102 credit guarantee allocations for wheat and flour were more than \$1.1 billion. Of this, \$730 million were approved. Credit guarantee approvals give an indication of sales activity under the program. About 70 percent of approvals were for sales to the former Soviet Union. On February 11, USDA released \$95 million in credit guarantees for wheat purchases by importers in the former Soviet Union. USDA also announced that another \$80 million are scheduled to be made available in March.

Approvals of GSM-103 credit guarantees amounted to less than \$10 million as of February 7. Tunisian importers were the only purchasers. (Sara Schwartz (202) 219-0825)

Figure 8
U.S. and EC Wheat Export Subsidies



Domestic Use Forecast Down 12 Percent

Declines in the food use and in the feed and residual use of wheat are expected to lead to a modest overall drop in domestic use. However, domestic wheat use through the first half of the marketing year is only down 5 percent. Recent high wheat prices likely preclude the possibility of a repeat of last year's large third-quarter feed and residual use.

Food Use Forecast Down Slightly

Food use is forecast to reach 775 million bushels in 1991/92, down 2.6 percent from USDA's preliminary 1990/91 estimate. However, this still represents a 2.9-percent increase from 1989/90, confirming ideas that in recent years, U.S. food use of wheat is trending upward at a rate slightly higher than the population growth rate. Mill grind in 1991/92 failed to match last year's record pace, leaving food use down 6.4 percent during the first half of 1991/92. Food use must increase a very modest 1.5 percent in the second half of 1991/92 to meet the 775-million-bushel annual forecast.

Feed and residual use is forecast down 28 percent to 350 million bushels. Relatively low wheat prices during harvest encouraged wheat feeding, leaving the feed and residual use down only 2 percent through the first half of the marketing year. However, recent dramatic increases in the price of wheat will prevent the feeding of wheat to livestock for the remainder of the 1991/92 marketing year.

Prices Jump in January

As stocks tightened, wheat prices were gradually pushed higher in the fall. After the announcement of reduced winter wheat seedings and lower-than-expected stocks on December 1, 1991, wheat prices increased sharply.

The December 1, 1991, stock level of 1.4 billion bushels was nearly the same as on December 1, 1989. However, wheat prices are not likely to trend down as dramatically at the end of the marketing year as they did in 1989/90. Although wheat stocks available for the second half of both years were similar, exports dropped after a strong start in 1989/90, whereas in 1991/92 the export sales pace indicates strong exports, par-

ticularly in the December-February quarter. Moreover, with reduced winter wheat plantings, a near-record wheat crop, comparable to 1990, is not in the offing. Thus wheat prices will likely remain relatively high.

Stocks-to-Use Ratio Forecast Lowest Since the End of WWII

The 390-million-bushel ending stocks forecast would be the lowest since 1974. Moreover, wheat use is much larger

Figure 9
U.S. Wheat Food Use, Monthly

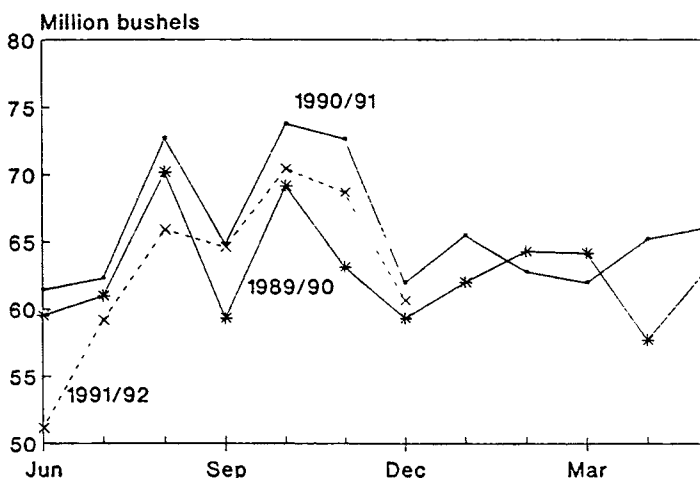


Figure 10
Quarterly Residual Use

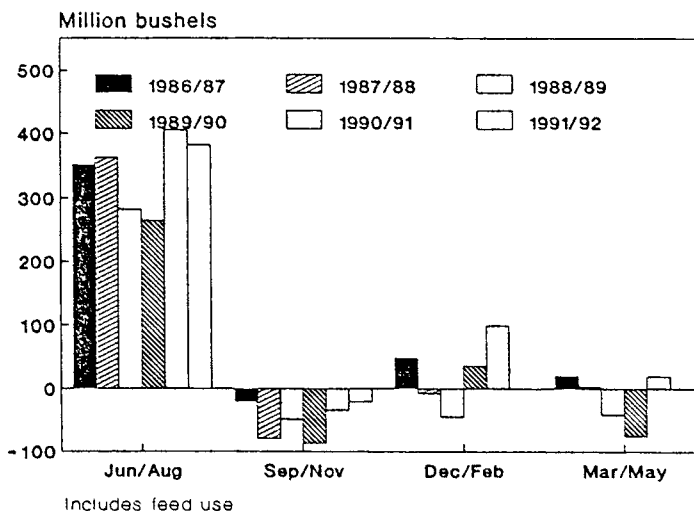
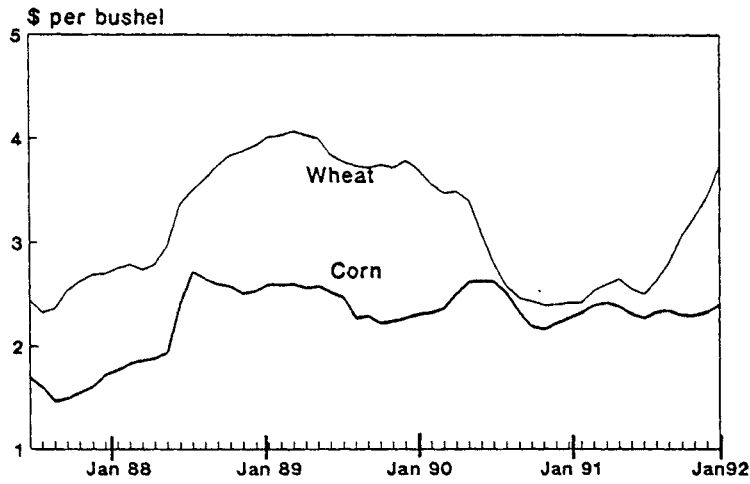


Figure 11

Average Farm Prices for Wheat and Corn



now than in the 1970's, so the forecast ending stocks equal only 16 percent of expected 1991/92 use, a bit tighter than in 1974. Moreover, only 240 million bushels of the ending stocks are likely to be privately owned. CCC inventory is forecast to remain at 150 million bushels because almost all of it is in the food security wheat reserve, which can only be used by presidential authorization. Outstanding 9-month loans are expected to be minimal by the end of the year. (Ed Allen (202) 219-0840

Figure 12

Wheat Price Received by U.S. Farmers

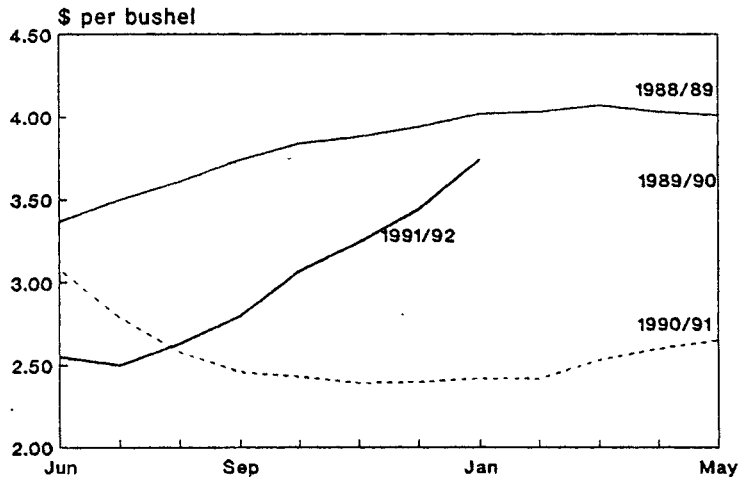


Figure 13

Monthly Wheat Imports

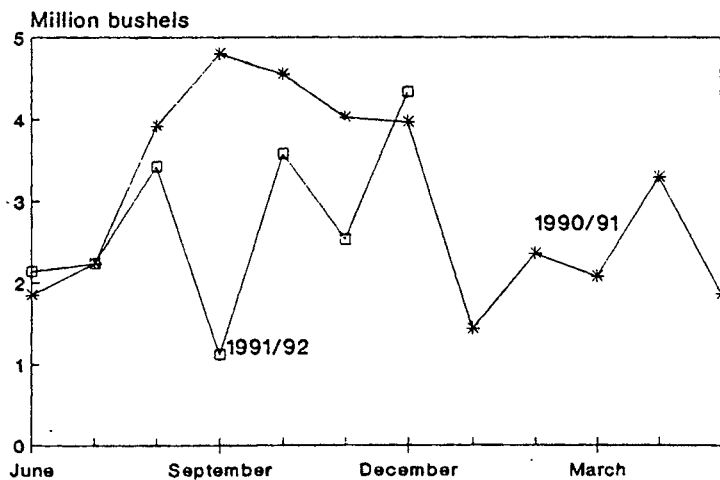


Table 1--Wheat supply, disappearance, and stocks, June-May

Item	1989/90	1990/91	1991/92
	Million bushels		
Stocks, June 1	702	536	866
CCC inventory	190	117	163
Farmer-owned reserve ^{1/}	287	144	14
Outstanding CCC loans	19	30	217
Uncommitted	206	245	472
Production	2,037	2,736	1,981
Imports	6	8	8
Total supply	2,744	3,281	2,854
Use, June-Aug.			
Food	191	196	177
Seed	2	2	2
Feed & residual	264	405	382
Exports	370	268	253
Total use	826	871	814
Stocks, Sept. 1	1,918	2,410	2,041
CCC inventory	168	105	163
Farmer-owned reserve ^{1/}	211	119	76
Outstanding CCC loans	48	120	149
Uncommitted	1,491	2,066	1,653
Imports	7	13	7
Total supply	1,925	2,423	2048
Use, Sept.-Nov.			
Food	192	211	204
Seed	68	61	60
Feed & residual	-86	-35	-21
Exports	329	278	363
Total use	503	515	606
Stocks, Dec. 1	1,423	1,908	1442
CCC inventory	155	130	161
Farmer-owned reserve ^{1/}	174	65	127
Outstanding CCC loans	80	261	105
Uncommitted	1,013	1,452	1049
Imports	5	8	
Total supply	1,427	1,916	
Use, Dec.-Feb.			
Food	186	193	
Seed	3	2	
Feed & residual	36	100	
Exports	260	225	
Total use	484	520	
Stocks, March 1	943	1,396	
CCC inventory	137	153	
Farmer-owned reserve ^{1/}	154	19	
Outstanding CCC loans	65	329	
Uncommitted	587	895	
Imports	6	7	
Total supply	949	1,403	
Use, March-May			
Food	185	196	
Seed	28	26	
Feed & residual	-75	19	
Exports	275	296	
Total use	412	537	

^{1/}Includes Special Producer Loan Program.

Recent Price Increases Have Encouraged FOR Redemption

In response to higher wheat prices, farmer-owned reserve (FOR) redemptions increased in recent weeks. Storage earnings paid by USDA on wheat held in the FOR were stopped on January 28, 1992, in response to high wheat prices. The stopping of storage payments likely creates an incentive for some producers to redeem their FOR loans sooner than if payments had continued. However, that effect will likely be overwhelmed for producers who expect higher wheat prices—prices that caused the storage payment stop—to continue.

Some Background on the FOR

The 1990 Farm Act redesigned the FOR to be more market oriented. When compared with the previous, "old FOR," farmers now have more control over marketing their FOR grain because they have the option of removing it from the reserve at any time without penalty. Grain can remain in the reserve for a maximum of 27 to 33 months, which eliminates the need for repeated extensions that under the "old FOR" often slowed or prevented FOR grain from moving into the market.

Wheat market conditions prompted the Secretary of Agriculture to open the FOR to 1990-crop wheat in December 1990, with a maximum entry quantity specified at 300 million bushels. To be eligible for the FOR, 1990-crop wheat must have been placed under 9-month loan by January 31, 1991. By that date, producers were also required to state whether they intended to place 1990-crop wheat in the FOR.

Accordingly, producers stated their intentions to enter 238.8 million bushels. Producers could reduce their intention without penalty.

Expected Prices Key to Producers' Actions

Because of higher prices since early last fall, entry has fallen short of intentions. On January 28, cumulative entries of 1990-crop wheat totalled 141.8 million bushels. With cumulative redemptions at 31.6 million bushels as of that date, 110.5 million bushels remained in the wheat FOR. Because of differences in the timing of placements and redemptions, the amount of wheat in the FOR peaked at 126.3 million bushels in December 1991.

Figure 14
Farmer-Owned Reserve Weekly Redemptions

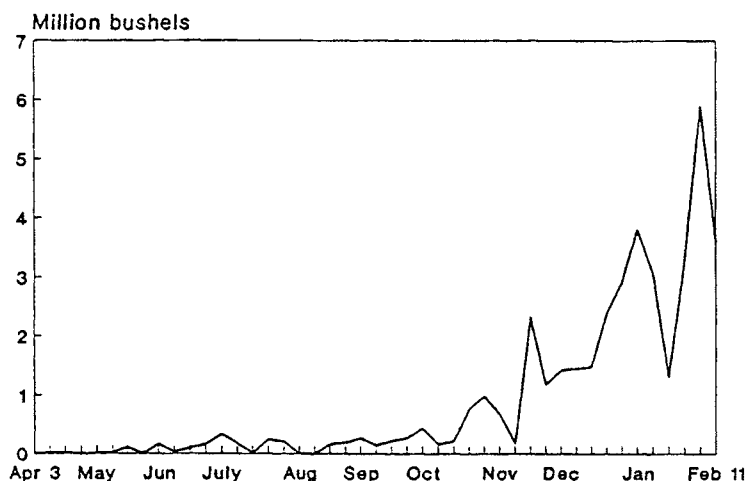
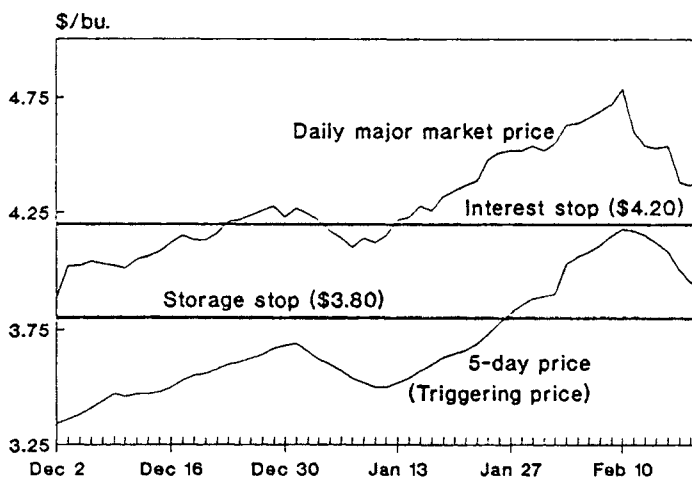


Figure 15
Farmer-Owned-Reserve Wheat Prices



Expected prices, relative to current prices, likely have been a major factor influencing 1990-crop redemptions. Prompted by high market prices, farm-

ers redeemed as much as 1 million bushels a week in October and over 2 million bushels during 1 week in November. The prices received by farmers in those

2 months averaged 64 and 85 cents above year-earlier levels, and more than 50 cents higher than during harvest.

Recent redemptions have been even higher. As prices continue to move upward, farmers redeemed almost 3 million bushels during the last week in December, and over 3 million bushels in each of 3 weeks in January.

Stopping of Storage Payments Announced on January 28

Storage payments were stopped on January 28, 1992, as required by the 1990 Farm Act. On that day, the 5-day-moving-average price for the classes of wheat in the FOR, as calculated by USDA, exceeded 95 percent of the target price (95 percent of \$4.00, or \$3.80 per bushel). The nonstorage earning period will continue until prices have been less than the storage-stop trigger price for more than 90 days.

The stopping of storage payments likely creates an incentive for some producers to redeem their FOR loans sooner than if payments had continued. However, that effect will likely be overwhelmed for producers who expect higher wheat prices—prices that caused the storage payment stop—to continue.

Daily price movements have been far greater than the monthly storage payment. USDA has been paying storage payments of 26.5 cents per bushel per year—or 2.2 cents per month—for wheat in the FOR. At the farm level,

producers in many areas can sell wheat at \$4.00 per bushel or higher. It has not been unusual for nearby futures prices to vary by 5 cents or more per day.

Producers have been able to realize almost \$2.00 per bushel by cashing in their FOR loans (at \$1.95 per bushel, national average) and selling at \$4.00 per bushel or more in the market. This is one of the main factors—along with the need for cash flow—accounting for the recent increase in redemptions.

Thus, producers are walking a tightrope, wanting to realize the highest gain, but uncertain as to when prices will peak. In this atmosphere of rapid price movements, the storage-stop will likely have a small effect on those producers who believe prices will move considerably higher.

In addition, a large portion—about 87 percent—of FOR grain is stored on farms. Producers who have FOR grain stored on farm would be less likely to respond to the storage-stop trigger because they would not be incurring the direct, out-of-pocket cost for storage payments associated with commercial warehouses.

Indeed, a higher percentage of FOR loans have been redeemed from warehouses than from on-farm storage, possibly because such redemptions are easier. As of January 28, 1992, 11 percent of FOR loans were in warehouses, down from 13 percent on December 31, 1991.

Interest-Payment Trigger Almost Touched

Under the 1990 Act, the Secretary may charge interest on FOR loans when the 5-day moving average FOR market price equals or exceeds 105 percent of the target price (105 percent of \$4.00, or \$4.20). If triggered, interest would be charged for a minimum of 60 days. That 5-day price, as of February 20, was \$3.95 — \$0.25 below the interest trigger. However, the 5-day price reached \$4.18 on February 10, and would have triggered the start of interest on the next day if the terminal prices had declined by 7 cents or less. But terminal prices dropped 20 cents so the trigger was not reached.

The interest rate for FOR loans in calendar year 1992 is the January rate of 4.5 percent. For a 1990-crop FOR loan, at the national average of \$1.95 per bushel, the annual interest charge would be 8.78 cents, or 0.73 cents per month.

Projected FOR stocks for the end of the 1991 marketing year, as published in the February *World Agricultural Supply and Demand Estimates*, are 40 million bushels. According to the February 11 *Loan Activity Report*, 100.7 million bushels were in the FOR. About 16 weeks remained in the marketing year after that report, so loan redemptions would have to average about 4 million bushels each week to reach the estimate of 40 million bushels. (Joy Harwood (202) 219-0840 and Craig Jagger (202) 720-7923)

Soft Red Winter Wheat Leads 1992 Area Drop

SRW producers reacted to yield declines and quality problems over the past 2 years by reducing plantings 7 percent.

Illinois led the decline, planting 200,000 fewer acres, while Arkansas, Georgia, Louisiana, and Missouri each posted a drop of 100,000 acres. Although Ohio posted a slight increase from a year earlier, seedings remained more than 200,000 acres less than for the 1990 crop.

Program participation rates are lower in SRW areas than in most wheat produc-

ing States, so reduced ARP did not do as much to boost area planted. Production prospects for 1992 are further clouded by some reported problems. Indiana reported winter wheat as mostly poor to fair at the beginning of February, while Missouri reported mostly fair to poor. However, it will be very difficult to assess yield prospects until the wheat comes out of its dormancy stage.

SRW 1991/92 Ending Stocks Down

SRW ending stocks for 1991/92 are forecast down to 36 million bushels, a very low carryover, but typical of SRW when overall stocks are low. Earlier in the year, large discounts for low test weight SRW during 1991/92 led to speculation that some might hold a significant quantity of SRW until the new crop is harvested, to blend it with higher test weight wheat.

Figure 16

SRW Area Planted and Harvested

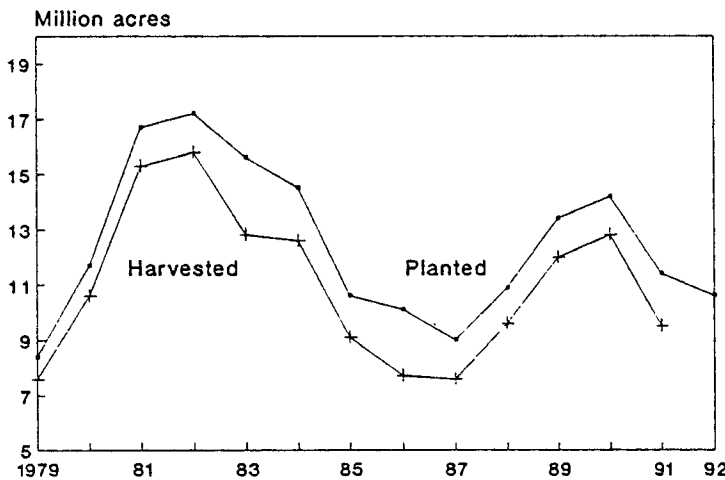
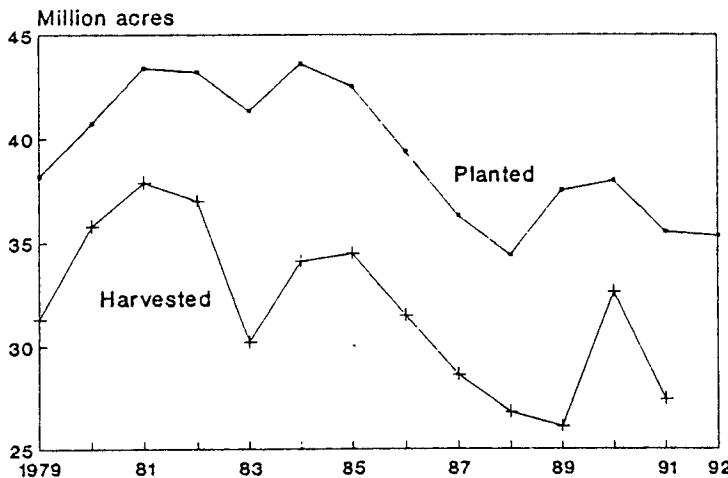


Figure 17

HRW Area Planted and Harvested



Hard-Red-Winter-Wheat Area Planted for 1992 Down Slightly

Texas posted a drop of 300,000 acres in winter wheat seedings for the 1992 crop. This was a major reason for the drop in hard red winter (HRW) area. However, Texas normally does not use a significant portion of the area planted to wheat for grain production. Instead, it uses some of its wheat planted area for haying or grazing. The wheat planted area that is harvested for grain in Texas varies from less than 50 percent (when livestock prices are favorable and weather is bad for wheat) to as high as 88 percent (in 1975 when wheat prices were high). Despite the decline in Texas wheat seedings, area harvested there may increase.

In South Dakota, where last year's yields were good, area planted increased 150,000 acres. HRW production prospects will be difficult to gauge until the crop comes out of dormancy; however, Kansas reported that the wheat crop looked good in late January, a marked improvement from fall crop conditions there.

HRW 1991/92 Ending Stocks Forecast Lower Than 1973/74

HRW ending stocks in 1991/92 are forecast at only 152 million bushels, lower than in 1973/74. Feed and residual use in 1991/92 is forecast to drop, reducing domestic use 21 percent to 540 million bushels, while strong demand from

China and the former Soviet Union boosts forecast exports to 570 million bushels, compared to only 368 million bushels last year.

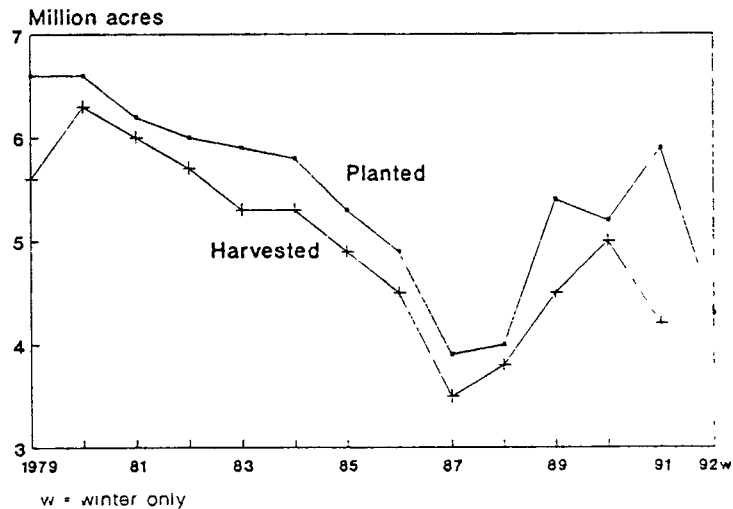
Hard Red Spring Wheat Exports Forecast Up 89 Percent in 1991/92

Based on a strong sales pace to date, hard red spring (HRS) exports are forecast to reach 380 million bushels, driving the expected 1991/92 ending stocks down to only 100 million. This would represent record exports and the lowest stocks since 1973/74. Prices for HRS exceeded \$4.70 per bushel in Minneapolis during the first week of February, providing ample incentives for HRS producers to plant wheat on available flex acres of other program crops, such as barley base.

White Wheat Area Largely Unchanged for 1992

Planted area was unchanged in Washington and Idaho, with a small increase in Oregon. High program participation, the lower ARP, and the prospect of sharply reduced competition from Australia in the world white wheat market led some analysts to expect an increase in planted area. However, dryness during the planting period may have caused some producers to plant less, and those producers may plant additional white spring wheat. Although Oregon crop conditions were poor to good in late January, by early February they had improved to fair to good. Washington re-

Figure 18
White Wheat Area Planted and Harvested



ported 80 percent of its winter wheat crop as good and 20 percent fair.

White wheat ending stocks for 1991/92 are forecast at only 42 million bushels, the lowest since 1973/74. Moreover, 29 million bushels of white wheat are in the Food Security Wheat Reserve which can only be accessed by presidential authorization.

Durum Wheat Prices Hit Large Discount

Durum wheat tends to be a somewhat separate market, with prices set by supply and demand factors that can be significantly different than the rest of the wheat market. Durum supply in

1991/92 is little changed from a year earlier, but exports have slumped as they faced increasing competition in the world market from larger Canadian and EC supplies.

Moreover, domestic mill grind of durum has also dropped off significantly. Facing sluggish demand and the prospect of ending stocks almost unchanged from beginning stocks, durum prices have been unable to rally as much as other wheat classes. For much of the year, durum was the cheapest wheat available in the United States. If this price relationship continues, many durum producers are likely to plant HRS instead of durum for the 1992 crop. (Ed Allen (202) 219-0840)

A Profile of U.S. Wheat Farms and Producers: The Census of Agriculture

An examination of Census of Agriculture data for 1982 and 1987 indicates that U.S. wheat farms decreased both in number and average size. Similarly, the number of all U.S. farms decreased, but the average size increased about 11 percent. The tenure data revealed that the proportion of owner operators of wheat farms decreased, while the proportion of tenant operators increased. Also, the proportion of producers categorized in the farming occupation (50 percent or more of his/her worktime in farming or ranching) increased from 76.7 percent in 1982 to 77.9 percent in 1987.

Like other sectors of U.S. agriculture, wheat production was affected by technological, environmental, policy, and economic developments during the 1980's. The profiles of U.S. wheat farms and producers changed according to Census of Agriculture data from 1982 and 1987. The Census data are reported for the U.S. as a whole and for major wheat producing States.

Eighteen States — Arizona, California, Colorado, Idaho, Illinois, Indiana, Kansas, Michigan, Minnesota, Montana, Nebraska, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Texas, and Washington — produced about 90 percent of all U.S. wheat in 1982 and 1987. Among these States, Kansas had the highest and California the lowest proportion of wheat farms in both censuses. Between 1982 and 1987, the number of wheat farms relative to all crop farms in the United States decreased from 19.5 to 16.4 percent. The largest number of wheat farms, based on the value of agricultural products sold, were in the \$40,000 to \$99,999 sales category.

On the other hand, the number of farms having a sales value of \$250,000 or more decreased about 10 percent between 1982 and 1987. However, it should be noted that the value of sales is influenced by the price, government program requirements, and crop size. For example, the season-average price received by farmers for wheat in the 1982/83 crop year was \$3.55 a bushel, compared to \$2.57 in the 1987/88 crop year. Also, the number of acres harvested declined from 77.9 million in 1982/83 to 55.9 million in 1987/88. The effect of lower harvested acres in

The Census of Agriculture

Farm Definition

In the census, a farm is defined as any place where \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the year. Farms are classified as wheat farms when wheat accounts for 50 percent (or more) of the value of agricultural products sold during the year.

Background

The Census of Agriculture provides a periodic statistical picture of the Nation's farming, ranching, and related activities. It is the principal source of consistent, comparable data at the county, State, and national levels. Many Federal and State programs are designed and evaluated on the basis of data obtained through the Census of Agriculture, and the private sector uses census information for many activities.

The first agricultural census was taken in 1840 as part of the sixth decennial census of population. From 1840 to 1950, an agriculture census was taken as part of the decennial census. From 1954 to 1974, a Census of Agriculture was taken for the years ending with digits 4 and 9. Title 13, United States Code, sections 142(a) and 191, requires that a census of the prior year be taken in 1979, 1983 and in every fifth year after 1983.

The current dollar amounts have not been adjusted for inflation. Because the census data indicate the situation at a given point in time, care should be taken in making inferences regarding trends.

1987/88 was partly compensated for by yields that increased from 35.5 to 37.7 bushels per acre. However, the total production declined in 1987/88 from 2.77 billion bushels in 1982/83 to 2.11 billion. Finally, the USDA acreage set-aside provision rose from 5.8 million acres in 1982/83 to 23.9 million in 1987/88.

Because many other commodities can compete with wheat for farmers' land, labor, capital, and management resources, it is important to evaluate wheat farms relative to those producing other agricultural commodities. Between 1982 and 1987 the number of all farms decreased 6.8 percent, while all-grain farms declined 15.6 percent and

the number of wheat farms dropped by 21 percent to 343,263 (table 3).

Characteristics of U.S. Wheat Farms

Farm Size—The average size of U.S. wheat farms decreased a small amount, from 159 to 151 acres, between 1982 and 1987 (table 4). Though this decline was consistent with farms raising other field crops, the decline was greater for wheat (5.6 percent) than for corn (4 percent) and soybeans (1.6 percent). However, the decline in wheat-farm size was smaller than it was for rice, sorghum, oats, cotton, and barley. For example, the average farm size declined 29 percent for rice, 19 percent for sorghum, 12 percent for oats, 11 percent for cotton, and 6.4 percent for barley.

In contrast, the average size for all U.S. farms increased 11 percent from 416 acres in 1982 to 462 in 1987. Higher set-aside requirements in 1987 may have influenced the wheat farm size. For example, an increase in the ARP could reduce the proportion of sales from wheat, thereby changing the classification of some farms, affecting the distribution of farm size.

While the average wheat farm size declined slightly in Illinois, Indiana, Michigan, Minnesota, and Ohio, those that had an average farm size below the national average in 1982, remained below in 1987 as well. However, the rankings of remaining States, with an average farm size greater than the national average, did change from 1982 to 1987 (table 4). Table 5 shows the size distribution of wheat farms as a percentage of State total for 1987 and 1982. Of the total wheat farms in the United States, about 62 percent in 1982 and 67 percent in 1987 consisted of 260 acres or more.

In 1987, out of all the States, Montana had the highest percentage (46.9 percent) of farms with 2,000 acres or more, followed by Colorado (28.7 percent) and Washington (23.8 percent). Ohio and Indiana had less than 1 percent of farms in this category. At the other end of the size distribution pattern, wheat farms with fewer than 100 acres were about 11 percent of the national total in 1987 as compared to about 14 percent in 1982. Only Idaho, Illinois, Indiana, Michigan, Ohio, and Oregon had a

Table 2--Distribution of U.S. wheat farms by value of agricultural products sold

Value of sales (\$)	Arizona		California		Colorado		Idaho	
	1987	1982	1987	1982	1987	1982	1987	1982
Less than 2,500	8	12	48	76	260	241	180	153
2,500-4,999	6	13	63	61	304	306	251	210
5,000-9,999	10	17	84	110	525	583	506	461
10,000-19,999	6	16	112	213	811	852	805	785
20,000-39,999	13	16	208	267	1,188	1,282	1,160	1,240
40,000-99,999	33	50	387	506	1,942	1,965	1,948	2,234
100,000-249,999	96	108	641	662	1,303	1,253	1,665	1,715
250,000-499,999	123	114	435	553	438	388	767	655
More than 500,000	148	183	863	973	221	246	424	411
Abnormal		10		8		5		6
All producers	443	539	2,841	3,429	6,992	7,121	7,706	7,870

Value of sales (\$)	Illinois		Indiana		Kansas		Michigan	
	1987	1982	1987	1982	1987	1982	1987	1982
Less than 2,500	703	803	576	716	1,696	1,795	578	891
2,500-4,999	744	1,074	742	1,063	2,227	2,402	694	1,180
5,000-9,999	1,625	2,018	1,660	2,124	4,146	5,063	1,367	2,192
10,000-19,999	2,710	3,497	2,609	3,443	6,018	7,982	1,700	2,752
20,000-39,999	3,563	4,750	2,997	4,077	7,473	9,891	1,642	2,558
40,000-99,999	5,630	7,747	4,450	6,000	9,519	12,699	1,923	2,907
100,000-249,999	4,742	6,206	3,777	4,633	5,458	6,966	1,621	2,050
250,000-499,999	1,300	1,596	1,153	1,343	1,438	1,734	593	684
More than 500,000	339	380	330	353	663	685	209	199
Abnormal		9		12		14		3
All producers	21,356	28,080	18,294	23,764	38,638	49,231	10,327	15,416

Value of sales (\$)	Minnesota		Montana		Nebraska		North Dakota	
	1987	1982	1987	1982	1987	1982	1987	1982
Less than 2,500	608	396	187	135	415	254	497	335
2,500-4,999	644	588	261	171	550	462	803	637
5,000-9,999	1,277	1,261	556	486	1,360	1,128	1,946	1,628
10,000-19,999	2,318	2,272	1,080	962	2,204	2,394	3,702	3,764
20,000-39,999	3,347	3,938	1,863	1,780	3,426	3,931	6,184	6,567
40,000-99,999	6,203	6,849	3,568	3,400	5,508	6,566	9,580	10,421
100,000-249,999	4,505	4,539	2,290	2,369	3,547	4,183	4,531	4,897
250,000-499,999	1,054	970	438	498	829	916	787	811
More than 500,000	282	252	132	165	285	336	215	206
Abnormal		5		16		12		11
All producers	20,238	21,070	10,375	9,982	18,124	20,182	28,245	29,277

Value of sales (\$)	Ohio		Oklahoma		Oregon		South Dakota	
	1987	1982	1987	1982	1987	1982	1987	1982
Less than 2,500	969	1,305	1,093	890	190	205	199	103
2,500-4,999	1,360	2,010	1,272	1,351	164	243	380	226
5,000-9,999	3,027	3,991	2,449	2,795	260	352	820	701
10,000-19,999	4,530	5,806	3,410	4,307	366	491	1,678	1,494
20,000-39,999	4,967	6,048	3,533	4,791	476	617	2,932	2,939
40,000-99,999	5,993	7,660	3,850	5,340	839	1,010	5,350	4,987
100,000-249,999	4,013	4,618	2,121	2,726	897	1,139	3,088	2,444
250,000-499,999	972	958	696	581	442	460	592	479
More than 500,000	255	234	220	203	256	233	234	153
Abnormal		18		15		13		4
All producers	26,086	32,648	18,644	22,999	3,890	4,763	15,273	13,530

Value of sales (\$)	Texas		Washington		United States	
	1987	1982	1987	1982	1987	1982
Less than 2,500	1,056	1,218	127	138	13,888	16,506
2,500-4,999	1,203	1,537	128	149	16,331	21,273
5,000-9,999	2,059	2,663	209	219	31,519	40,687
10,000-19,999	2,763	3,488	406	369	47,696	62,294
20,000-39,999	3,185	3,898	719	580	60,499	79,814
40,000-99,999	4,066	5,086	1,554	1,732	89,220	116,667
100,000-249,999	3,317	3,115	1,663	1,967	64,705	77,748
250,000-499,999	1,202	1,084	485	750	19,510	21,929
More than 500,000	535	539	271	318	8,169	8,825
Abnormal		19		10		332
All producers	19,386	22,647	5,562	6,232	352,237	446,075

Figure 19
 Distribution of U.S. Wheat Farms by Acres Harvested, 1982



Figure 20
 Distribution of U.S. Wheat Farms by Tenure, 1982

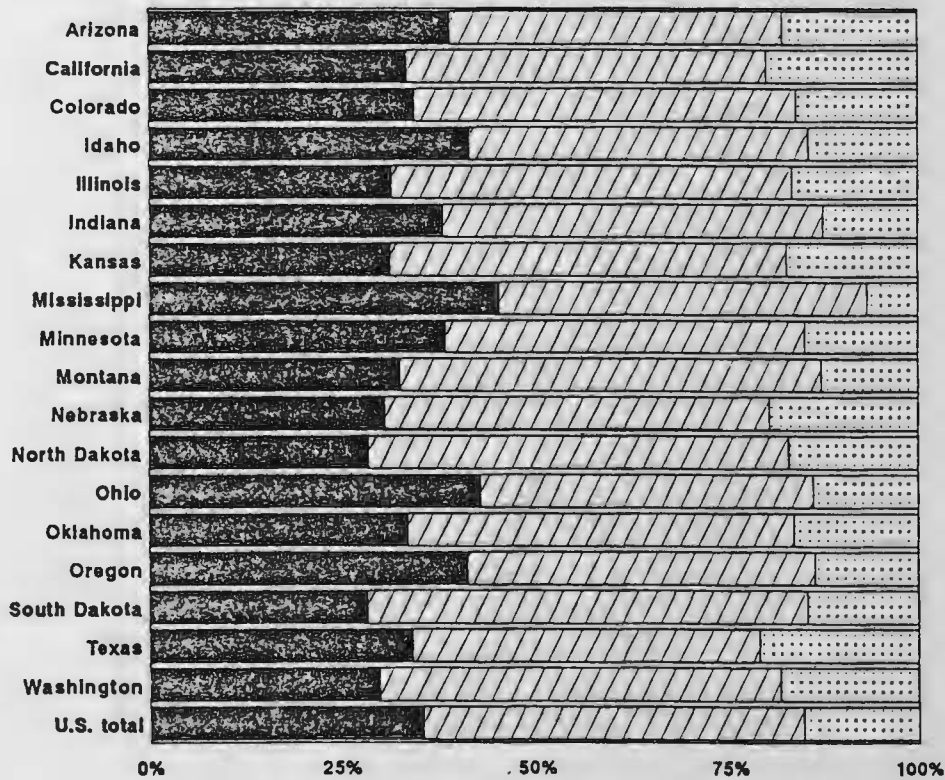
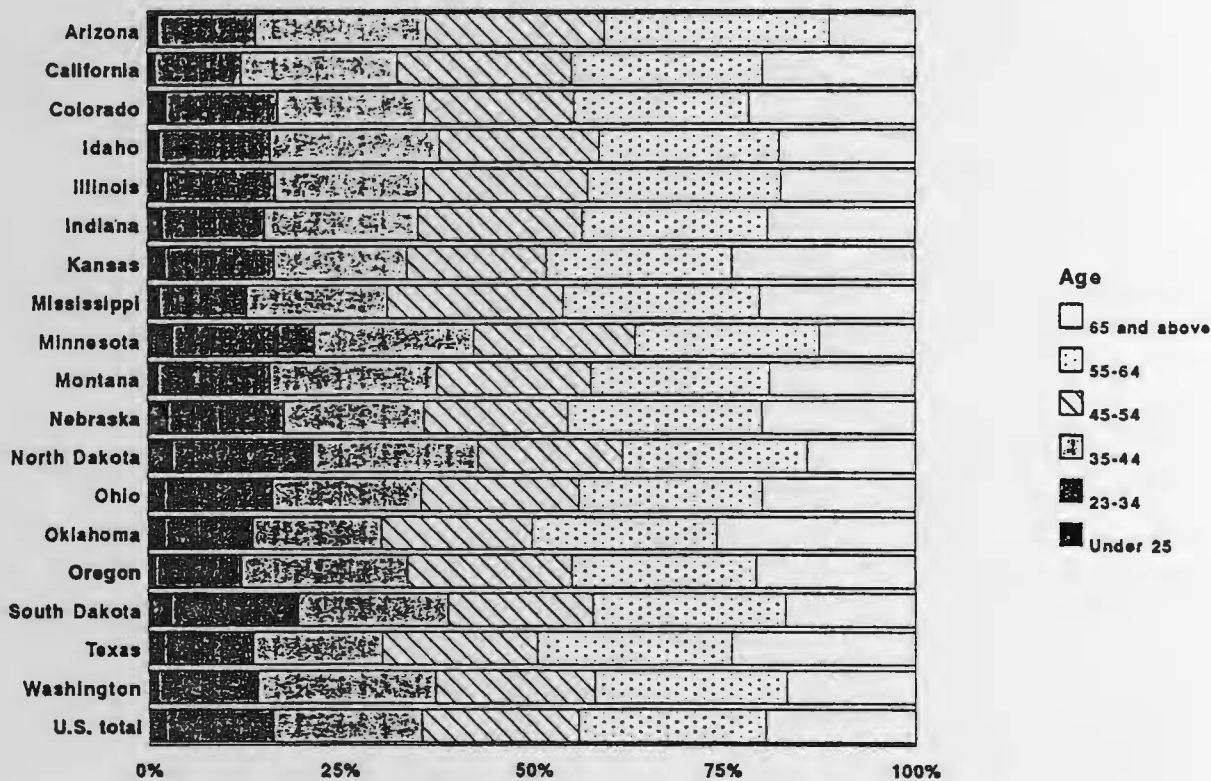


Figure 21
Distribution of U.S. Wheat Producers, 1987



higher percentage of small farms (100 acres) than the national average in 1987 and 1982. North Dakota had the smallest percentage (1.7 percent) of farms with less than 100 acres.

In 1987 and 1982, the largest number of U.S. wheat farms (about 33-34 percent) harvested wheat on 25-99 acres. Illinois had the greatest proportion (more than 40 percent) and Montana the least (less than 18 percent) in this category. During the same period, about 18 percent of U.S. wheat farms harvested 250 acres or more. Montana ranked number 1, with more than 54 percent of farms harvesting 250 acres or more.

Characteristics of U.S. Wheat Producers

The census data suggest that during 1982 and 1987 the characteristics of wheat producers did change. The decline in the proportion of full owners

(those who operate only land they own) who produced wheat is similar to the decline of full owners of other field crops such as rice, corn, sorghum, barley, soybeans, and cotton. However, the change in tenure for part owners (those who operate land they own and also rent from others) was mixed. The proportion of part owners for wheat, corn, soybeans, and barley increased, while that of rice, cotton, sorghum, and oats decreased.

The increase in the proportion for wheat farms operated by tenants (those who operate only land they rent from others or work on shares for others) was quite similar to that for producers of other field crops, such as corn, sorghum, barley, soybeans, and cotton, but much smaller than rice. The proportion of tenants on oats farms decreased 44 percent during this period. However, for all U.S. farms the proportions of full

owners, part owners, and tenants remained similar in 1982 and 1987.

In 1987, the highest percentage of wheat farms operated by tenants (about 32.7 percent) was in Arizona, but in 1982 the highest proportion (21.1 percent) was in Texas. Similarly, the proportion of part owners in 1987 was highest (56.2 percent) in North Dakota, while South Dakota had the highest (56.8 percent) in 1982. This indicates a change in proportion of tenure arrangement among States between 1982 and 1987 that may be due to the effect of changes in government programs and economic conditions.

The data on the distribution of wheat producers by principal occupation suggest that a vast majority were categorized as farmers (the operator spent 50 percent or more of his/her worktime in farming or ranching). Their proportion grew from 76.7 to 77.9 percent between

Table 3--Number of wheat farms relative to other agricultural commodities, selected States, 1987

Item	Arizona		California		Colorado		Idaho		Illinois		Indiana		Kansas		Michigan		Minnesota	
	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982
All farms	7,669	7,254	83,217	82,383	27,284	27,063	24,142	24,610	88,786	98,467	70,506	77,151	68,579	73,280	51,172	58,642	85,079	94,372
Wheat	432	521	2,819	3,401	6,917	7,039	7,574	7,772	21,127	27,813	17,949	23,339	38,365	48,986	10,011	14,980	19,779	20,850
Percent of total	5.6	7.2	3.4	4.1	25.4	26.0	31.4	31.6	23.8	28.2	25.5	30.3	55.9	66.8	19.6	25.5	23.2	22.1
All grains (incl. wheat)	595	831	6,331	7,689	9,831	10,608	10,364	11,918	71,040	79,988	48,412	54,729	48,606	54,132	25,844	33,997	54,643	61,588
Percent of total	7.8	11.5	7.6	9.3	36.0	39.2	42.9	48.4	80.0	81.2	68.7	70.9	70.9	73.9	50.5	58.0	64.2	65.3
Cash grains	71	127	2,624	3,308	5,763	6,515	4,207	5,428	56,593	64,918	35,912	40,987	31,789	37,203	15,745	22,114	31,441	36,187
Percent of total	0.9	1.8	3.2	4.0	21.1	24.1	17.4	17.4	83.7	65.9	50.9	50.9	46.4	50.8	30.8	37.7	37.0	38.3
Other field crops	1,540	1,461	5,267	4,947	3,294	2,767	4,538	3,670	1,591	1,169	3,265	3,533	2,010	1,666	5,654	4,323	6,231	4,406
Percent of total	20.1	20.1	6.3	6.0	12.1	10.2	18.8	14.9	1.8	1.2	4.6	4.6	2.9	2.3	11.0	7.4	7.3	4.7
Livestock	3,190	3,127	18,836	21,192	12,544	12,352	9,629	9,695	22,467	23,792	22,609	23,432	29,037	28,310	12,124	13,173	23,906	26,229
Percent of total	41.6	43.1	22.6	25.7	46.0	45.6	39.9	39.4	25.3	24.2	32.1	30.4	42.3	38.6	23.7	22.5	28.1	27.8
Dairy	142	169	2,532	2,708	472	618	1,538	2,067	2,691	3,028	2,756	3,291	1,391	1,804	5,199	6,572	14,334	18,618
Percent of total	1.9	2.3	3.0	3.3	1.7	2.3	6.4	8.4	3.0	3.1	3.9	4.3	2.0	2.5	10.2	11.2	16.8	19.7
Poultry	67	90	1,201	1,472	142	237	84	81	302	456	892	1,001	197	232	455	594	1,012	1,199
Percent of total	0.9	1.2	1.4	1.8	0.5	0.9	0.3	0.3	0.5	0.5	1.3	1.3	0.3	0.3	0.9	1.0	1.2	1.3
Others	2,659	2,280	52,757	48,756	5,069	4,574	4,146	3,669	5,142	5,104	5,072	4,907	4,155	4,065	11,995	11,866	8,155	7,733
Percent of total	34.7	31.4	63.4	59.2	18.6	16.9	17.2	14.9	5.8	5.2	7.2	6.4	6.1	5.5	23.4	20.2	9.6	8.2

Item	Montana		Nebraska		North Dakota		Ohio		Oklahoma		Oregon		South Dakota		Texas		Washington		United States	
	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982
All farms	24,568	23,471	60,502	60,209	35,289	36,406	79,277	86,897	70,228	72,481	32,014	34,039	36,376	37,052	188,788	184,945	33,559	36,047	2,087,759	2,239,300
Wheat	10,326	9,937	17,924	20,049	28,192	29,236	25,351	31,816	18,454	22,860	3,802	4,701	15,149	13,489	18,934	22,286	5,504	6,180	343,263	435,929
Percent of total	42.0	42.3	29.6	33.3	79.9	80.3	32.0	36.6	26.3	31.5	11.9	13.8	41.6	36.4	10.0	12.1	16.4	17.1	16.4	19.5
All grains (incl. wheat)	11,548	11,570	43,749	44,364	29,025	30,751	48,011	55,634	19,882	24,082	4,429	5,842	24,980	25,657	31,113	36,887	6,169	7,348	802,553	950,686
Percent of total	47.0	49.3	72.3	73.7	82.2	84.5	60.6	64.0	28.3	33.2	13.8	17.2	68.7	69.2	16.5	19.9	18.4	20.4	38.4	42.5
Cash grains	7,206	7,571	28,440	29,247	20,426	24,278	32,997	38,990	7,978	13,836	1,682	2,731	11,719	11,988	11,767	20,946	4,031	5,016	458,396	576,369
Percent of total	29.3	32.3	47.0	48.6	57.9	66.7	41.6	44.9	11.4	19.1	5.3	8.0	32.2	32.4	6.2	11.3	12.0	13.9	22.0	25.7
Other field crops	2,079	1,691	1,624	1,223	1,488	1,055	5,856	5,754	4,600	3,302	3,876	3,259	1,172	944	21,065	17,391	3,612	2,937	243,628	253,093
Percent of total	8.5	7.2	2.7	2.0	4.2	2.9	7.4	6.6	6.6	4.6	12.1	9.6	3.2	2.5	11.2	9.4	10.8	8.1	11.7	11.3
Livestock	12,156	11,551	26,172	25,333	10,126	7,710	23,392	24,307	48,131	46,657	16,022	17,564	19,022	19,132	129,600	123,166	11,742	14,349	892,267	905,963
Percent of total	49.5	49.2	43.3	42.1	28.7	21.2	29.5	28.0	68.5	64.4	50.0	51.6	52.3	51.6	68.6	66.6	35.0	39.8	42.7	40.5
Dairy	256	318	1,242	1,421	1,365	1,520	6,508	7,376	1,116	1,401	794	1,035	1,950	2,424	2,402	2,773	1,453	1,716	138,311	164,472
Percent of total	1.0	1.4	2.1	2.4	3.9	4.2	8.2	8.5	1.6	1.9	2.5	3.0	5.4	6.5	1.3	1.5	4.3	4.8	6.6	7.3
Poultry	69	78	191	191	95	108	838	977	945	785	273	370	114	145	1,817	1,831	291	420	38,494	41,953
Percent of total	0.3	0.3	0.3	0.3	0.3	0.3	1.1	1.1	1.3	1.1	0.9	1.1	0.3	0.4	1.0	1.0	0.9	1.2	1.8	1.9
Others	2,802	2,262	2,833	2,794	1,789	1,735	9,666	9,493	7,458	6,500	9,367	9,080	2,399	2,419	22,137	18,838	12,430	11,609	316,663	297,450
Percent of total	11.4	9.6	4.7	4.6	5.1	4.8	12.2	10.9	10.6	9.0	29.3	26.7	6.6	6.5	11.7	10.2	37.0	32.2	15.2	13.3

Table 4--Distribution of U.S. wheat farms, by size

Size (Acres)	Arizona		California		Colorado		Idaho		Illinois		Indiana		Kansas		Michigan		Minnesota	
	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982
1-9	6	4	8	17	15	16	28	44	97	95	106	86	177	108	18	22	22	16
10-49	9	27	81	225	93	110	351	457	1,019	1,592	1,033	1,638	847	1,601	565	1,158	375	421
50-69	1	4	43	69	45	60	202	218	562	869	684	903	344	706	360	721	209	253
70-99	7	14	80	138	130	121	393	477	1,222	1,770	1,604	2,368	1,383	2,149	963	1,756	645	793
100-139	4	13	93	137	106	100	434	444	1,562	2,146	1,803	2,475	997	1,653	1,106	1,939	752	887
140-179	10	24	116	165	342	371	475	610	1,514	2,274	1,609	2,202	2,962	3,956	975	1,608	1,608	1,874
180-219	12	6	91	119	127	130	394	434	1,393	1,933	1,215	1,703	1,012	1,497	788	1,261	1,067	1,132
220-259	5	13	100	106	137	150	436	415	1,271	1,834	1,072	1,519	1,465	2,264	679	1,013	1,218	1,445
260-499	83	81	497	553	1,028	1,064	1,528	1,517	5,390	7,520	4,236	5,631	7,507	10,290	2,251	3,240	6,018	6,573
500-999	138	139	637	676	1,436	1,480	1,522	1,465	5,099	5,998	3,478	3,914	9,406	12,132	1,819	2,017	5,290	5,177
1,000-1,999	102	118	578	592	1,529	1,594	1,169	1,024	1,907	1,785	1,281	1,150	8,039	8,746	667	573	2,521	1,963
2,000 +	66	86	517	624	2,004	1,920	774	759	320	255	173	163	4,499	4,115	136	105	513	531
Total	443	529	2,841	3,421	6,992	7,116	7,706	7,864	21,356	28,071	18,294	23,752	38,638	49,217	10,327	15,413	20,238	21,065
Av. farm size	220	243	198	271	346	401	161	191	45	52	32	38	225	237	34	33	121	141

Size (Acres)	Montana		Nebraska		North Dakota		Ohio		Oklahoma		Oregon		South Dakota		Texas		Washington		United States	
	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982
1-9	2	7	44	22	7	11	179	128	60	45	48	53	4	6	80	50	28	34	1,300	1,357
10-49	71	72	270	321	142	186	1,845	2,642	462	703	277	496	68	61	554	798	133	230	13,134	22,083
50-69	40	34	126	149	66	77	1,342	1,851	238	306	122	201	47	41	311	503	55	91	8,076	12,935
70-99	98	90	519	559	256	310	2,914	4,080	696	1,013	203	310	179	181	582	907	121	138	17,430	26,835
100-139	91	112	421	455	248	288	3,160	4,180	503	806	241	311	171	144	791	1,048	146	185	19,432	29,254
140-179	229	228	1,316	1,488	1,056	1,096	2,555	3,346	1,824	2,403	229	285	640	543	1,031	1,253	164	254	24,522	34,074
180-219	110	103	482	597	294	330	1,995	2,569	491	720	190	209	236	168	745	908	159	191	15,794	22,458
220-259	126	117	735	921	457	463	1,758	2,093	795	992	148	158	323	265	621	801	164	222	15,863	22,075
260-499	930	833	4,173	5,197	4,026	4,373	5,540	6,838	3,954	5,200	661	832	2,445	2,090	3,390	4,166	803	985	70,836	94,111
500-999	1,456	1,419	5,008	5,585	7,737	8,700	3,516	3,816	4,491	5,384	617	700	4,099	3,817	4,594	5,350	1,170	1,289	76,663	91,118
1,000-1,999	2,352	2,266	3,336	3,223	9,391	9,296	1,104	972	3,449	3,753	454	492	3,917	3,618	3,896	4,005	1,293	1,258	55,356	56,637
2,000 +	4,870	4,685	1,694	1,653	4,565	4,136	178	115	1,681	1,659	700	703	3,144	2,592	2,791	2,839	1,326	1,345	33,831	32,806
Total	10,375	9,966	18,124	20,170	28,245	29,266	26,086	32,630	18,644	22,984	3,890	4,750	15,273	13,526	19,386	22,628	5,562	6,222	352,237	445,743
Av. farm size	453	522	108	128	311	335	32	35	229	260	216	248	211	246	188	225	388	436	151	159

Table 5--Distribution of U.S. wheat farms by size, as a percent of State total

Size (Acres)	Arizona		California		Colorado		Idaho		Illinois		Indiana		Kansas		Michigan		Minnesota		United States	
	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982		
	Percent																			
1-9	1.4	0.8	0.3	0.5	0.2	0.2	0.4	0.6	0.5	0.3	0.6	0.4	0.5	0.2	0.2	0.1	0.1	0.1	0.1	
10-49	2.0	5.1	2.9	6.6	1.3	1.5	4.6	5.8	4.8	5.7	5.6	6.9	2.2	3.3	5.5	7.5	1.9	2.0		
50-69	0.2	0.8	1.5	2.0	0.6	0.8	2.6	2.8	2.6	3.1	3.7	3.8	0.9	1.4	3.5	4.7	1.0	1.2		
70-99	1.6	2.6	2.8	4.0	1.9	1.7	5.1	6.1	5.7	6.3	8.8	10.0	3.6	4.4	9.3	11.4	3.2	3.8		
100-139	0.9	2.5	3.3	4.0	1.5	1.4	5.6	5.6	7.3	7.6	9.9	10.4	2.6	3.4	10.7	12.6	3.7	4.2		
140-179	2.3	4.5	4.1	4.8	4.9	5.2	6.2	7.8	7.1	8.1	8.8	9.3	7.7	8.0	9.4	10.4	7.9	8.9		
180-219	2.7	1.1	3.2	3.5	1.8	1.8	5.1	5.5	6.5	6.9	6.6	7.2	2.6	3.0	7.6	8.2	5.3	5.4		
220-259	1.1	2.5	3.5	3.1	2.0	2.1	5.7	5.3	6.0	6.5	5.9	6.4	3.8	4.6	6.6	6.6	6.0	6.9		
260-499	18.7	15.3	17.5	16.2	14.7	15.0	19.8	19.3	25.2	26.8	23.2	23.7	19.4	20.9	21.8	21.0	29.7	31.2		
500-999	31.2	26.3	22.4	19.8	20.5	20.8	19.8	18.6	23.9	21.4	19.0	16.5	24.3	24.7	17.6	13.1	26.1	24.6		
1000-1999	23.0	22.3	20.3	17.3	21.9	22.4	15.2	13.0	8.9	6.4	7.0	4.8	20.8	17.8	6.5	3.7	12.5	9.3		
2000 +	14.9	16.3	18.2	18.2	28.7	27.0	10.0	9.7	1.5	0.9	0.9	0.7	11.6	8.4	1.3	0.7	2.5	2.5		
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

Size (Acres)	Montana		Nebraska		North Dakota		Ohio		Oklahoma		Oregon		South Dakota		Texas		Washington		United States	
	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982		
	Percent																			
1-9	0.0	0.1	0.2	0.1	0.0	0.0	0.7	0.4	0.3	0.2	1.2	1.1	0.0	0.0	0.4	0.2	0.5	0.5	0.4	0.3
10-49	0.7	0.7	1.5	1.6	0.5	0.6	7.1	8.1	2.5	3.1	7.1	10.4	0.4	0.5	2.9	3.5	2.4	3.7	3.7	5.0
50-69	0.4	0.3	0.7	0.7	0.2	0.3	5.1	5.7	1.3	1.3	3.1	4.2	0.3	0.3	1.6	2.2	1.0	1.5	2.3	2.9
70-99	0.9	0.9	2.9	2.8	0.9	1.1	11.2	12.5	3.7	4.4	5.2	6.5	1.2	1.3	3.0	4.0	2.2	2.2	4.9	6.0
100-139	0.9	1.1	2.3	2.3	0.9	1.0	12.1	12.8	2.7	3.5	6.2	6.5	1.1	1.1	4.1	4.6	2.6	3.0	5.5	6.6
140-179	2.2	2.3	7.3	7.4	3.7	3.7	9.8	10.3	9.8	10.5	5.9	6.0	4.2	4.0	5.3	5.5	2.9	4.1	7.0	7.6
180-219	1.1	1.0	2.7	3.0	1.0	1.1	7.6	7.9	2.6	3.1	4.9	4.4	1.5	1.2	3.8	4.0	2.9	3.1	4.5	5.0
220-259	1.2	1.2	4.1	4.6	1.6	1.6	6.7	6.4	4.3	4.3	3.8	3.3	2.1	2.0	3.2	3.5	2.9	3.6	4.5	5.0
260-499	9.0	8.4	23.0	25.8	14.3	14.9	21.2	21.0	21.2	22.6	17.0	17.5	16.0	15.5	17.5	18.4	14.4	15.8	20.1	21.1
500-999	14.0	14.2	27.6	27.7	27.4	29.7	13.5	11.7	24.1	23.4	15.9	14.7	26.8	28.2	23.7	23.6	21.0	20.7	21.8	20.4
1000-1999	22.7	22.7	18.4	16.0	33.2	31.8	4.2	3.0	18.5	16.3	11.7	10.4	25.6	26.7	20.1	17.7	23.2	20.2	15.7	12.7
2000 +	46.9	47.0	9.3	8.2	16.2	14.1	0.7	0.4	9.0	7.2	18.0	14.8	20.6	19.2	14.4	12.5	23.8	21.6	9.6	7.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 6--Distribution of U.S. wheat producers by principal occupation

Occupation	Arizona		California		Colorado		Idaho		Illinois		Indiana		Kansas		Michigan		Minnesota		United States	
	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982		
Farming	386	464	2,486	2,912	5,792	5,824	6,408	6,544	16,042	21,102	13,209	17,126	29,285	37,231	7,179	10,360	17,218	18,363		
Percent of State total	87.1	87.7	87.5	85.1	82.8	81.8	83.2	83.2	75.1	75.2	72.2	72.1	75.8	75.6	69.5	67.2	85.1	87.2		
Other	57	65	356	509	1,200	1,292	1,298	1,320	5,314	6,969	5,085	6,626	9,353	11,986	3,148	5,053	3,020	2,702		
Percent of State total	12.9	12.3	12.5	14.9	17.2	18.2	16.8	16.8	24.9	24.8	27.8	27.9	24.2	24.4	30.5	32.8	14.9	12.8		
All producers	443	529	2,842	3,421	6,992	7,116	7,706	7,864	21,356	28,071	18,294	23,752	38,638	49,217	10,327	15,413	20,238	21,065		
Percent of national total	0.1	0.1	0.8	0.8	2.0	1.6	2.2	1.8	6.1	6.3	5.2	5.3	11.0	11.0	2.9	3.5	5.7	4.7		

Occupation	Montana		Nebraska		North Dakota		Ohio		Oklahoma		Oregon		South Dakota		Texas		Washington		United States	
	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982	1987	1982		
Farming	9,183	8,921	15,308	17,516	24,991	26,209	17,594	21,890	13,178	15,777	3,217	3,749	13,611	12,304	14,154	16,115	4,922	5,430	274,432	341,840
Percent of State total	88.5	89.5	84.5	86.8	88.5	89.6	87.4	87.1	70.7	68.6	82.7	78.9	89.1	91.0	73.0	71.2	88.5	87.3	77.9	76.7
Other	1,192	1,045	2,816	2,654	3,254	3,057	8,492	10,740	5,466	7,207	673	1,001	1,662	1,222	5,232	6,513	640	792	77,805	103,903
Percent of State total	11.5	10.5	15.5	13.2	11.5	10.4	12.6	12.9	29.3	31.4	17.3	21.1	10.9	9.0	27.0	28.8	11.5	12.7	22.1	23.3
All producers	10,375	9,966	18,124	20,170	28,245	29,266	26,086	32,630	18,644	22,984	3,890	4,750	15,273	13,526	19,386	22,628	5,562	6,222	352,237	445,743
Percent of national total	2.9	2.2	5.1	4.5	8.0	6.6	7.4	7.3	5.3	5.2	1.1	1.1	4.3	3.0	5.5	5.1	1.6	1.4		

1982 and 1987. The proportion of wheat producers in other occupations (50 percent or more of his/her worktime in occupations other than farming) was the highest (32.6 percent) in Ohio, followed by Michigan (30.5 percent), and Oklahoma (29.3 percent). South Dakota had the smallest proportion (about 11 percent).

Finally, the census information revealed that producers in the 55-to-64 age group made up the largest proportion of those operating wheat farms in 1987 (24.8 percent) and 1982 (25.4 percent). However, the proportion of farms operated by individuals 65 and older increased 3.8 percent during this period. A similar increase was experienced for farms growing other field crops and for total U.S. farms.

At the other extreme, the proportion of wheat farms operated by those 35 or below decreased 2.2 percent, with the largest decline (29 percent of total) for sorghum farms and the smallest (1.4 percent of total) for cotton. However,

the proportion of rice farms operated by this age group grew slightly (less than 1 percent). The number of U.S. farms operated by individuals below 35 years of age declined by 2.6 percent between 1982 and 1987.

Conclusions

Eighteen States (Arizona, California, Colorado, Idaho, Illinois, Indiana, Kansas, Michigan, Minnesota, Montana, Nebraska, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Texas, and Washington) produced about 90 percent of U.S. wheat. About 16.3 percent of the acreage and 15.5 percent of production were concentrated in Kansas, according to 1987 census data. In Kansas and North Dakota, wheat contributed about 36 and 40 percent, respectively, to the total value of agricultural production from crop farms.

Average wheat farm size in the United States fell from 159 acres in 1982 to 151 in 1987. This was consistent with the reduction for other field crops, except

rice which declined substantially (from 283 acres in 1982 to 202 in 1987). In contrast, the average size for all U.S. farms increased about 11 percent, from 416 acres in 1982 to 462 in 1987.

Between 1982 and 1987, the proportion of wheat farms operated by owners decreased, while that of tenants increased slightly, similar to other field crops, except rice which had the highest (about 10 percent) increase. In 1987, Ohio had the highest proportion (40.3 percent) of full owners, while the proportion of part owners of wheat farms was largest in North Dakota (56.2 percent). The proportion of producers in the farming occupation category in 1987 grew to 77.9 percent, from 76.7 percent in 1982. By 1987, the number of wheat farms operated by individuals in the 65-and-above age group had increased from 15.6 percent in 1982 to 19.4 percent. However, the dominant age group for producers on wheat farms was 55 to 64 in 1982 and 1987. (Parveen Setia (202) 219-0840)

Forecasting Season-Average Wheat Prices Using Futures Prices

by

Linwood A. Hoffman¹

Abstract: A method is developed which uses futures prices to forecast the season-average price of U.S. wheat. A historical monthly average basis is computed and deducted from the nearby futures price resulting in a monthly farm-price forecast for each month in a crop year. Next, a weighted-season-average price is computed. Results provide timely and reasonably accurate forecasts of season-average producer prices for wheat.

Keywords: Basis, wheat, forecasts, futures prices, futures-method forecast, season-average prices.

Introduction

Commodity price forecasting is an important and ongoing activity conducted by both the private and public sectors. Forecasting methods range from sophisticated econometric models to expert qualitative judgement. Policymakers constantly seek to understand the effects of domestic or international events upon producers' season-average prices. Producers' price expectations influence planting decisions, which, in turn, affect harvested supplies and market prices. Thus, commodity price forecasts are important to taxpayers, producers, and consumers.

A short-run change in farm prices depends upon numerous factors that affect commodity supply and demand functions. Estimates of commodity prices should be based on expected supply and demand conditions. While some have questioned the impact of technical traders on the futures market, futures prices are still considered as a composite indicator of expected supply and use and, thus, can be used to forecast short-run farm prices (1, 2, 3, and 4).

Futures prices are determined by the interaction of current and expected demand for, and supply of, a commodity. Hedgers and speculators evaluate a number of factors, including, but not limited to planting intentions, weather factors, government policies, and the potential for domestic or export consumption. Hedgers deal with the actual commodity, as well as with futures con-

tracts. Frequently, speculators have no direct connection to the cash commodity, but expect to profit from changes in futures prices.

Current futures prices provide important information about expected cash prices on future dates. However, most participants in the futures market need to be able to forecast a price at the location and time when they plan to buy or sell. Thus, they need to predict the "basis," the difference between the futures price and their local price. Similarly, in making decisions about farm programs, policymakers benefit from accurate forecasts of a national-average farm price.

This article describes the methodology used in forecasting monthly and season-average prices. Then, weekly updates of season-average price forecasts are presented for the 1991/92 crop year. Forecast accuracy results are presented for previous crop years. To assess forecast accuracy, forecasts are compared with actual season-average prices, and an alternative published forecast. The alternative forecast used in this article is the U.S. Department of Agriculture's (USDA) season-average price forecast, released in the *World Agricultural Supply and Demand Estimates (WASDE)*.

Forecasting Method

Forecasts are made of the monthly average cash wheat price received by farmers for each of the 12 months of the crop year, starting with June. Each month's forecast is based on the current futures price for the nearest contract maturing after the month being forecast (referred to as the "nearby futures contract"). The forecast for each month is obtained by

adding a historical average-price-difference "basis" (cash price minus futures price) to the nearby futures price. Monthly price forecasts are then weighted by a historical percentage of sales by month to calculate the weighted season-average price forecast.

Relationships within the forecast method are expressed as:

$$(1) P_m = F_{mt} + b_m$$

where:

P_m = Forecast U.S. farm price of wheat in month m for 12 months, June through May. Thus, this method provides a short-term forecast based on the availability of futures contract prices.

F_{mt} = Futures settlement price of wheat observed on day t of the first contract to mature after month m . Each crop year contains five futures contracts: July, September, December, March, and May.

b_m = Expected basis, in month m , equals the U.S. farm price less the price of the nearby futures contract for wheat averaged for month m over the previous 5 years.

The forecast of the weighted season-average price (SAP) is computed as:

$$(2) \text{SAP} = \sum_{m=1}^{12} w_m P_m$$

where:

w_m = monthly weight for month m .

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P_i = the average actual farm price for past months and/or ($F_{mi} + b_m$) for future months.

Basis

As previously mentioned, the difference between a cash price at a specific location and the price of a particular futures contract is known as the basis. The basis tends to be more stable or predictable than either the cash price or futures price. Several factors explain the basis and their magnitude varies from one location to another.

Some specific factors that determine the basis include: local supply and demand conditions for the commodity and its substitutes, transportation and handling charges, transportation bottlenecks, availability of storage space, storage costs, conditioning capacities, and market expectations. Because the basis calculated for this analysis represents an average of U.S. conditions, it reflects a composite of these influencing factors.

The basis in this study is the arithmetic difference between the monthly U.S. average cash price received by producers and the nearby futures settlement price. For example, the June basis is the difference between the June-average cash price received by producers and June's average settlement price of the July futures contract. A 5-year moving average of these bases is used to reduce distortions that may occur in any given month and is updated at the end of each crop year.

Monthly Weights

Monthly marketings are used to construct the weighted season-average price. Each month's weight represents the proportion of the year's crop marketed in that month. A 5-year moving average of these monthly weights is constructed (1986/87 through 1990/91) and is updated annually after the release of USDA's December issue of *Crop Production*. The monthly prices, actual or forecast, are multiplied by each month's corresponding weight.

Data

Historical daily settlement prices are obtained from the Commodity Futures Trading Commission (crop years 1981-

89) of each wheat futures contract traded on the Kansas City Board of Trade. Current futures settlement prices are from the *Wall Street Journal* (crop year 1990 and 1991). Cash prices are from *Agricultural Prices*, published by USDA's National Agricultural Statistics Service. Weights for monthly marketings are from various issues of USDA's December *Crop Production*.

Procedure

Table A-1 illustrates the method used in forecasting the season-average wheat price for the crop year 1991/92. This method produces a weekly forecast of the season-average price. A weekly futures settlement price (as observed on each Thursday) is used for each of the nearby contracts. Alternatively, a daily or monthly forecast of the season-average price could be made.

Six steps are involved in the forecast process.

1. The latest available futures settlement prices (line 1) are gathered for the contracts that are trading. Settlement prices for Thursday, February 13, 1992, are used for illustration (line 1). Futures quotes are used for March, May, and July 1992 contract settlement prices. Actual monthly prices received are available and used for June 1991 through January 1992. (The January monthly cash price represents a mid-month price and is updated the following month.)

If this forecast were started in May 1991 (concurrent with the start of USDA's price forecasts for crop year 1991/92), the July 1992 futures price would not be available. Thus, a 5-year-average spread between the May and July contracts would be used to compute an implied July 1992 futures price.

Alternatively, if the forecast was started in June 1991 (the beginning of the crop year), all futures prices needed (July 1991 through July 1992) would be available and entered on line 1.

2. Monthly futures prices are the settlement prices of the nearby contracts. For example, the futures price for February 1992 (line 2) represents the February 13 settlement price of the March 1992 contract. The nearby (May) contract price is used for March because during any contract close month the nearby contract has greater stability than the contract-close month (March), as contract liquidity decreases during the delivery month. Also, the contracts usually close about the third week of the month, which would lower the number of observations that could be used to calculate the average monthly closing price.
3. A forecast of the monthly average farm price (line 4) is computed by adding the basis (cash price minus futures price) (line 3) to the monthly futures price (line 2).
4. The actual monthly average farm price is entered on line 5 as it becomes available. If this 1991-92 forecast was made during May or June 1991, all 12 monthly prices would be forecast and line 5 would remain blank.
5. The actual and forecast farm prices are spliced together in line 6. For the present marketing year, 1991-92, 8 of the monthly prices shown are actual farm prices of all wheat (June through December), while the last 4 monthly prices are forecasts.
6. The monthly percentage of wheat marketings by producers (5-year moving average, line 7) is used to weight the monthly farm prices (line 6). A weighted season-average farm price of wheat is then computed (line 8).

Forecast for 1991/92 Crop Year

Season-average price forecasts are based on expectations reflected in the futures market and, if available, actual farm prices. As of February 13, 1992,

Table A-1--Futures method forecast of U.S. wheat producers' season-average price, 1991-92

Item	June	July	August	September	October
(1) Current futures price 1/ by contract (settlement)					
(2) Monthly futures price based on nearby contract					
(3) Plus the historical basis (cash less futures)	-0.21	-0.27	-0.26	-0.30	-0.28
(4) Forecast of monthly average farm price					
(5) Actual monthly farm price	2.55	2.49	2.63	2.80	3.07
(6) Spliced actual/forecasted monthly farm price	2.55	2.49	2.63	2.80	3.07
Annual price projections:					
Simple average	3.33				
(7) (Marketing weights in percent)	14.52	17.14	11.54	8.10	6.34
(8) Weighted average	3.11				

Item	November	December	January	February
Dollars/bushel				
(1) Current futures price 1/ by contract (settlement)				4.3675
(2) Monthly futures price based on nearby contract		4.37	4.37	4.25
(3) Plus the historical basis (cash less futures)	-0.23	-0.25	-0.25	-0.26
(4) Forecast of monthly average farm price				4.11
(5) Actual monthly farm price	3.24	3.44	3.74	
(6) Spliced actual/forecasted monthly farm price	3.24	3.44	3.74	4.11
Annual price projections:				
Simple average				
(7) (Marketing weights in percent)	5.52	7.40	8.70	5.08
(8) Weighted average				

Item	March	April	May	July
(1) Current futures price 1/ by contract (settlement)		4.2500		3.9900
(2) Monthly futures price based on nearby contract	4.25	3.99		
(3) Plus the historical basis (cash less futures)	-0.23	-0.21	-0.21	
(4) Forecast of monthly average farm price	4.02	4.04	3.78	
(5) Actual monthly farm price				
(6) Spliced actual/forecasted monthly farm price	4.02	4.04	3.78	
Annual price projections:				
Simple average				
(7) (Marketing weights in percent)	5.46	4.60	5.60	
(8) Weighted average				

1/ Contract months include: July, September, December, March, and May.

Futures price quotation from the Kansas City Board of Trade, February 13, 1992, settlement.

the futures method projection for the 1991/92 price of wheat was \$3.11 per bushel (table A-1).

The initial forecast was \$2.75 per bushel, as of May 2, 1991, \$0.14 per bushel above the season-average price for 1990/91 (figure A-1). Prices were expected to rise in 1991/92 because of reduced U.S. plantings and a below-average-yield forecast. However, price projections dropped in early July because of large beginning stocks, quality problems with soft red winter wheat, declining corn and soybean prices, and potentially large wheat exports from the major foreign competitors. However, since the middle of July, the futures price forecast has generally risen. The July 18, 1991, projection was \$2.55 per bushel and it moved upward to about \$3.11 per bushel on February 13, 1992, responding to tighter U.S. stocks and strong U.S. exports, lower than expected U.S. winter wheat plantings for the 1992 crop, and tightening world supplies.

Forecast Accuracy

Forecast accuracy was examined for crop years 1986/87 through 1990/91. A mean absolute percentage difference was computed for the crop year and a monthly percentage difference was computed between the monthly forecast and actual season-average-farm price.

Accuracy of the futures method was also compared with the WASDE projections, an alternative season-average price forecast. Because the WASDE numbers are released monthly, the historical futures forecast was computed on a monthly basis. The midpoint of the WASDE forecast range is used to represent the WASDE forecast. The monthly futures projection uses the settlement price available the day after the release of the WASDE forecast. This procedure attempts to equalize information available to either method.

The mean absolute percentage difference of the futures forecasts ranged from 2 to 4 percent over the past 5 years, compared with WASDE's 3 to 5 percent (table A-2, figures A-2 to A-6). Based on the mean absolute percentage difference, the futures method performed about as well as the WASDE forecasts. Differences between the two forecasts

were minor in each of the past 5 year's projections, ranging from a low of 0.1 percent for the 1986-87 crop year to a maximum of 1.8 percent for the 1989/90 crop year.

Based on the monthly percentage differences, the futures method performed better than the WASDE method in 3 out of 5 years. For example, the futures method had a lower percentage difference in 9 out of 13 monthly forecasts for 1986/87, 8 out of 13 for 1987/88, and 11 out of 13 for 1989/90. The WASDE forecast had the lower percentage difference in 9 out of 13 months in 1988/89 and in 12 out of 13 months in 1990/91.

Conclusions

This analysis suggests that the futures method can provide a timely and reasonable forecast of producers' season-

average prices. This procedure can provide a useful service to producer organizations, policy analysts, and consumer organizations. The futures forecast method can also provide a useful cross-check against other seasonage price forecasts.

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Table A-2--Forecast accuracy of wheat's season-average farm price, 1986-90 crop years

Forecast month	1986		1987		Crop year and forecast methods				1989		1990	
	WASDE1	Futures	WASDE1	Futures	WASDE1	1988 Futures	WASDE1	Futures	WASDE1	Futures	WASDE1	Futures
Dollars per bushel												
May	- 1.9	0	- 4.7	+ 7.4	-19.4	-18.1	+ 7.5	+14.1	+18.8	+30.8		
June	- 1.9	- 6.5	- 4.7	- .5	-16.7	- 1.9	+ 7.5	+ 8.5	+18.8	+25.4		
July	- 1.9	- 7.9	- 4.7	- 2.5	- .5	+ 2.8	+ 5.5	+ 4.1	+14.9	+15.4		
August	- 1.9	- 4.8	- 4.7	- .8	- .5	- 3.0	+ 8.9	+ 4.5	+ 9.2	+ 9.5		
September	- 5.0	- 5.5	- 4.7	+ .4	+ .8	+ 1.4	+ 8.2	+ .8	+ 3.4	+ 5.5		
October	- 5.0	- 4.5	- 2.7	+ 1.9	+ .8	+ 1.9	+ 6.9	+ .8	+ 3.4	+ 3.9		
November	- 5.0	- 4.8	- 2.7	- .1	- 2.6	+ 1.2	+ 5.5	+ 1.9	+ 1.5	+ 3.3		
December	- 5.0	- 3.6	- .8	+ 2.2	- 1.2	+ .8	+ 4.2	+ 2.2	- .4	+ 1.7		
January	- 5.0	- 2.9	+ .2	+ 3.4	- 1.2	+ 1.3	+ 3.5	+ 1.6	- .4	0		
February	- 3.9	- 1.9	+ 1.2	+ 2.6	+ .1	+ 1.6	+ 3.5	+ .6	- .4	+ .9		
March	- 2.9	- .6	+ 1.2	+ .9	+ .1	+ 1.8	+ .8	- .1	- .4	+ 2.1		
April	- 2.9	- .6	- .8	+ .9	+ .1	+ 1.1	+ .1	0	+ .6	+ 1.6		
May	- .8	- .2	- .8	0	+ .5	+ 1.3	- .3	- .2	0	+ 1.1		
Mean absolute percentage error												
	3.3	3.4	2.6	1.8	3.4	2.9	4.8	3.0	2.9	4.2		

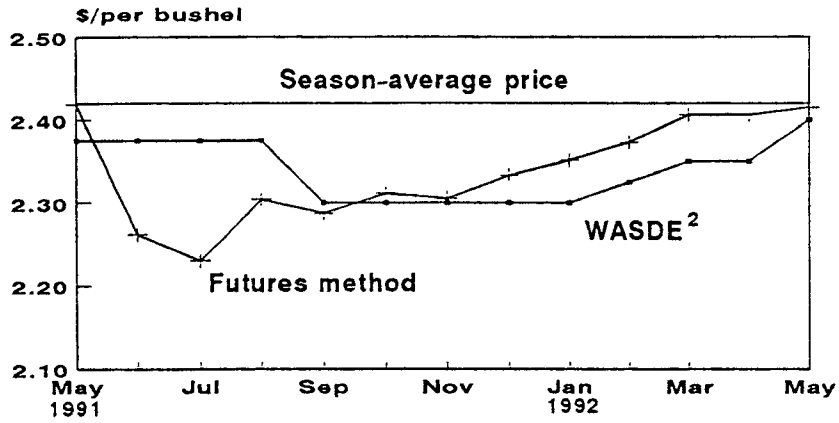
1/ Based on midpoint of wheat's price forecast published monthly in USDA's World Agricultural Supply and Demand Estimates.

Table A-3--Forecasts and actual season-average farm price of U.S. wheat, 1986-90 crop years

Forecast month	1986		1987		Crop year and forecast methods				1989		1990	
	WASDE1	Futures	WASDE1	Futures	WASDE1	1988 Futures	WASDE1	Futures	WASDE1	Futures		
Dollars per bushel												
May	2.38	2.42	2.45	2.76	3.00	3.05	4.00	4.25	3.10	3.42		
June	2.38	2.26	2.45	2.56	3.10	3.65	4.00	4.04	3.10	3.27		
July	2.38	2.23	2.45	2.51	3.70	3.83	3.93	3.87	3.00	3.01		
August	2.38	2.30	2.45	2.55	3.70	3.61	4.05	3.89	2.85	2.86		
September	2.30	2.29	2.45	2.58	3.75	3.77	4.03	3.75	2.70	2.75		
October	2.30	2.31	2.50	2.62	3.75	3.79	3.98	3.75	2.70	2.71		
November	2.30	2.31	2.50	2.57	3.75	3.77	3.93	3.79	2.65	2.70		
December	2.30	2.33	2.55	2.63	3.68	3.75	3.88	3.80	2.60	2.65		
January	2.30	2.35	2.58	2.66	3.68	3.77	3.85	3.78	2.60	2.61		
February	2.33	2.37	2.60	2.64	3.73	3.78	3.85	3.74	2.60	2.63		
March	2.35	2.41	2.60	2.59	3.73	3.79	3.75	3.72	2.60	2.67		
April	2.35	2.41	2.55	2.59	3.73	3.76	3.73	3.72	2.63	2.65		
May	2.40	2.42	2.55	2.57	3.74	3.77	3.71	3.71	2.61	2.64		
Actual:	2.42	2.42	2.57	2.57	3.72	3.72	3.72	3.72	2.61	2.61		

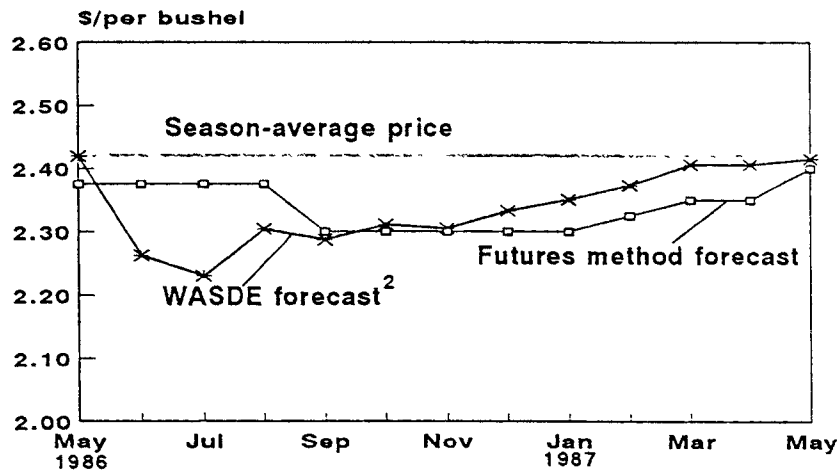
1/ Based on midpoint of wheat's price forecast published monthly in USDA's World Agricultural Supply and Demand Estimates.

Figure A-1
U.S. Wheat Prices: Monthly Forecasts and Actual
1989/90 Crop Year¹



¹ Producers' season-average price.
² Midpoint of WASDE's monthly wheat forecast.

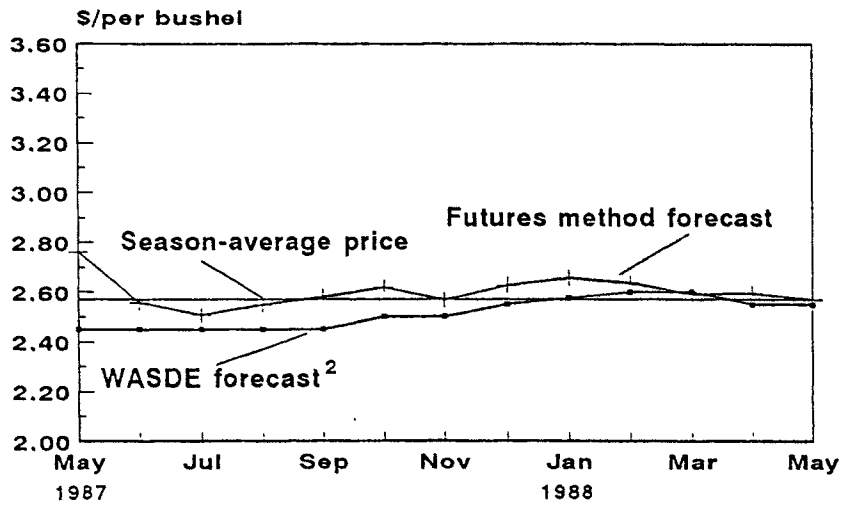
Figure A-2
U.S. Wheat Prices: Monthly Forecasts and Actual¹



¹ Producers' season-average price.
² Midpoint of WASDE's monthly wheat forecast.

Figure A-3

U.S. Wheat Prices: Monthly Forecasts and Actual¹

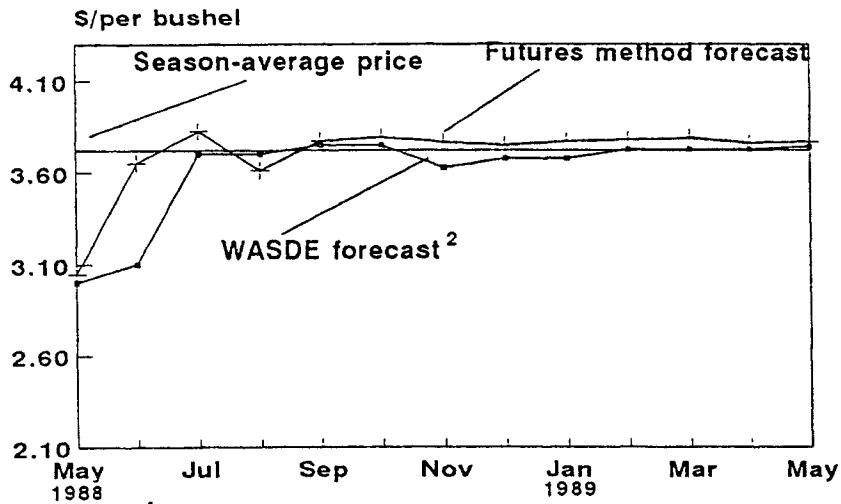


¹ Producers' season-average price.

² Midpoint of WASDE's monthly wheat forecast.

Figure A-4

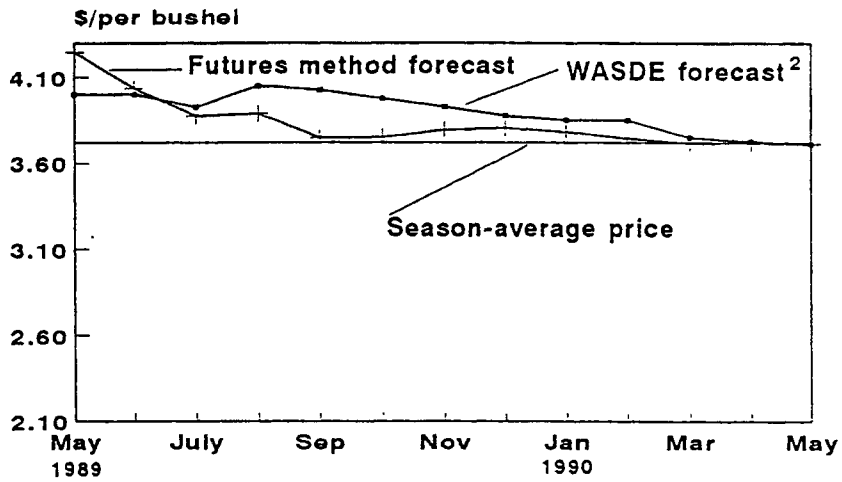
U.S. Wheat Prices: Monthly Forecasts and Actual 1987/88 Crop Year¹



¹ Producers' season-average price.

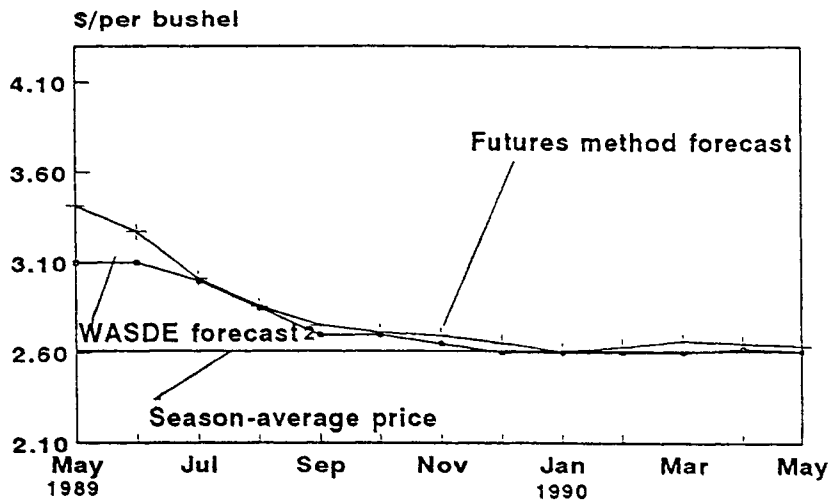
² Midpoint of WASDE's monthly wheat price forecast.

Figure A-5
 U.S. Wheat Prices: Monthly Forecasts and Actual
 1989/90 Crop Year¹



¹ Producers' season-average price.
² Midpoint of WASDE's monthly wheat price forecast.

Figure A-6
 U.S. Wheat Prices: Monthly Forecasts and Actual
 1990/91 Crop Year¹



¹ Producers' season-average price.
² Midpoint of WASDE's monthly wheat price forecast.

Current Status of the Environmental Reserve and the Conservation Compliance Programs: Implications for U.S. Wheat Area

by

Parveen P. Setia¹

Abstract: In 1985 and 1990 Congress passed farm legislation relating to soil conservation, wetlands protection, and other environmental quality concerns. Although farmer program participation is voluntary, receiving other USDA program benefits is contingent on compliance with conservation measures. However, if agricultural program benefits decline, producers may not comply with environmental goals.

Keywords: Environment, reserve, conservation compliance, soil conservation, wetlands, benefits.

The 1985 Food Security Act (FSA) created the Conservation Reserve Program. Under this legislation, farmers' benefits from voluntary agricultural programs were also subjected to compliance with acceptable conservation performance for certain environmentally sensitive lands under the highly erodible land and wetland conservation provisions. The 1990 Food, Agriculture, Conservation, and Trade (FACT) Act further refined and extended the reserve provisions and the compliance provisions, initiated in the 1985 FSA. Federal budget deficits, agricultural markets, and environmental issues combined to shape the FACT Act's environmental targets and the appropriate program tools.

For example, the 1985 legislation increased the emphasis on controlling soil erosion and excess agricultural production capacity and on strengthening farm income, leading to the large, paid conservation reserve programs. However, the 1990 FACT Act did not mandate placing additional cropland into the reserve programs. Instead it places a priority on water quality, wetlands, and wildlife habitat issues in environmentally sensitive areas.

For purposes of this discussion, the provisions are divided into two major categories. The first includes the environmental reserve provisions and the second describes the conservation compliance provisions. The two categories interact; i.e., lands that are not expected

to profitably meet USDA's required conservation standards while maintained in production may be enrolled in the Conservation Reserve Program (CRP). Producers would receive annual rental payments under the CRP as compensation for lost production during the specified contract period (normally 10 years). At the end of the CRP contract period, the Conservation Compliance Program (CCP) ensures that the highly erodible enrolled land will not be intensively cultivated in a way that degrades the environment.

Environmental Reserve Programs

The 1990 FACT Act established the Environmental Conservation Acreage Reserve Program (ECARP) which is composed of the CRP (authorized by the 1985 FSA) and the new Wetland Reserve Program (WRP).

The Conservation Reserve Program

The Conservation Reserve Program is designed to achieve multiple goals that include erosion reduction, soil productivity gains, sedimentation reduction, water quality improvement, curbing excess production, and providing income support to program participants. The CRP serves as an alternative for farmers to meet the Conservation Compliance Program requirements for highly erodible land.

The 1986-1990 Period

The stated CRP objective for 1986-1990 was to assist owners and operators of highly erodible or environmentally sen-

sitive cropland in conserving and improving the soil and water resources of their farms or ranches. The aim of the CRP is to take 40 to 45 million acres of highly erodible and environmentally sensitive cropland out of production and to put it into tree or grass cover for a 10- to 15-year period. In return for placing the eligible land in the reserve, USDA pays participants an annual rent and 50 percent of the cost of establishing a permanent cover crop.

As implementation of the CRP progressed, the eligibility criteria were modified to accommodate evolving program goals, in addition to soil erosion control. USDA held nine signup periods between 1986 and 1990 for farmers to enroll cropland in the CRP. After each signup period, USDA verified eligibility and accepted those applications that did not violate USDA's established maximum acceptable rental rate (MARR) for the area. During 1986-1990, about 34 million acres (8 percent) of U.S. cropland, were enrolled in the CRP at an average annual rent of \$49 per acre per year.⁽⁹⁾

Because of the eligibility criteria and the MARR structure, more than 62 percent of the enrolled acreage during the 4-year period was located in the Northern Plains, the Southern Plains, and the Mountain States—areas having primarily wind erosion. Approximately 88 percent of the enrolled acreage was planted with grass cover and only 6 percent of the acres were placed in trees, well below the one-eighth goal of the 1985 Act. About 49,400 enrolled acres were placed in filter strips to improve water quality, and some 410,000 acres of wetlands were enrolled.

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Table B-1. Proportion of wheat area harvested and enrolled in the Conservation Reserve and Compliance Programs, selected States, 1991

The program's direct gross government cost for the first 10-year period is estimated at \$18 billion, without taking into account potential savings in annual commodity program payments.(11) The last signup (9th) under the 1985 FSA was held in July 1989 and no other signup was announced because Congress was beginning work on the 1990 farm bill. During the first 9 signups, more wheat base was retired than any other crop base. Producers were free to choose which crop bases they would retire. It seems they chose to retire more of the wheat base because of its lowest relative returns.

In 1990, an economic assessment indicated that the partial, net economic benefits of the CRP, if it reached the FACT Act's target of 45 million acres, would range from \$3.4 billion to \$11.0 billion in present value terms.(11) Most of the projected benefits would result from the value of expanded wildlife habitat and improved surface water quality. Net government costs for such a program were estimated at \$2.0-\$6.6 billion in present value terms, including direct and indirect savings in commodity program outlays.

The 1991-1995 Period

Under the 1990 FACT Act, CRP signups resumed under modified program rules. The Act mandated that a total of 40 million acres be enrolled under the ECARP by the end of 1995, including the 34 million acres enrolled in the CRP during 1986-1990. Because the statutory goal is to enroll 1 million acres in the WRP, another 5 million acres of additional CRP enrollment were needed to reach the minimum 40 million acres mandated.

With the modified eligibility criteria, land eligible for enrollment in the current CRP includes:

- highly erodible cropland,
- cropland devoted to filter strips and other easement practices,
- cropland in State and regional water quality areas (selected watershed areas and conservation priority areas which comprised Chesapeake Bay,

State	Total principal crops area harvested	Wheat area harvested	Wheat area as a percent of total harvested
	-----1,000-----		-Percent-
Arizona	770	68	8.8
California	4,340	442	10.2
Colorado	5,580	2,336	41.9
Georgia	3,774	425	11.3
Idaho	4,215	1,160	27.5
Illinois	22,906	1,400	6.1
Indiana	11,555	720	6.2
Kansas	20,712	11,000	53.1
Michigan	6,713	560	8.3
Minnesota	18,719	2,155	11.5
Missouri	12,900	1,500	11.6
Montana	8,687	4,379	50.4
Nebraska	18,316	2,100	11.5
North Dakota	20,925	9,790	46.8
Ohio	9,972	1,080	10.8
Oklahoma	8,614	5,000	58.0
Oregon	2,260	846	37.4
South Dakota	15,640	3,117	19.9
Texas	17,608	2,800	15.9
Washington	4,046	2,150	53.1
State total	218,252	53,028	
Percent of U.S.	71.6	91.9	
U.S. total	304,894	57,693	18.9

State	Conservation Reserve Program			Retired wheat base as a percent of		
	Total cropland retired to date	Total crop base retired	Total wheat base retired	Total principal crops area	Total harvested wheat area	Total retired crop base
	-----1,000-----			-----Percent-----		
Arizona	0	0	0	0.0	0.0	0.0
California	189	97	24	0.6	5.4	24.9
Colorado	1,970	1,129	811	14.5	34.7	71.8
Georgia	693	376	187	5.0	44.0	49.8
Idaho	850	539	275	6.5	23.7	51.0
Illinois	746	437	138	0.6	9.9	31.6
Indiana	423	236	60	0.5	8.3	25.3
Kansas	2,916	2,145	1,293	6.2	11.8	60.3
Michigan	271	148	31	0.5	5.6	21.3
Minnesota	1,918	1,286	412	2.2	19.1	32.0
Missouri	1,639	798	402	3.1	26.8	50.5
Montana	2,833	1,834	1,039	12.0	23.7	56.6
Nebraska	1,403	920	325	1.8	15.5	35.3
North Dakota	3,172	2,112	1,135	5.4	11.6	53.8
Ohio	334	167	49	0.5	4.5	29.0
Oklahoma	1,187	953	716	8.3	14.3	75.2
Oregon	528	448	294	13.0	34.7	65.5
South Dakota	2,104	1,416	622	4.0	20.0	43.9
Texas	4,060	3,266	1,299	7.4	46.4	39.8
Washington	1,026	631	393	9.7	18.3	62.3
State total	28,262	18,938	9,505			
Percent of U.S.	79.4	83.2	89.2			
U.S. total	35,608	22,767	10,662	0.0	0.0	0.1

State	Conservation Compliance Program		
	Acres with conservation plans	Acres with completed plans	Percent of plans completed
	-----1,000-----		-Percent-
Arizona	911	723	79.4
California	984	756	76.9
Colorado	9,750	3,770	38.7
Georgia	921	735	79.8
Idaho	3,041	1,308	43.0
Illinois	4,303	2,107	49.0
Indiana	2,603	778	29.9
Kansas	12,240	8,513	69.6
Michigan	634	355	56.0
Minnesota	2,083	1,076	51.6
Missouri	6,161	2,797	45.4
Montana	13,776	5,700	41.4
Nebraska	9,620	4,935	51.3
North Dakota	5,365	2,735	51.0
Ohio	1,733	695	40.1
Oklahoma	4,953	2,195	44.3
Oregon	1,538	1,045	67.9
South Dakota	3,893	2,054	52.8
Texas	12,858	8,319	64.7
Washington	3,649	1,371	37.6
State total	101,015	51,967	
Percent of U.S.	74.6	77.6	
U.S. total	135,324	66,956	49.5

Table B-2--Crops produced on least-cost hydric cropland likely to be replaced by a wetland reserve

Crop	Reserve size	
	2.5 million acres	5 million acres
	1,000 acres	
Major commodity crops:		
Corn	790	1,513
Soybeans	767	1,406
Wheat	542	1,188
Oats	155	257
Barley	121	220
Cotton	19	48
Sorghum	16	57
Rice	0	0
Major crops	2,408	4,689
Other crops	92	311
Total	2,500	5,000

Percent of total reserve

Major commodity crops:		
Corn	31.6	30.3
Soybeans	30.7	28.1
Wheat	21.7	23.8
Oats	6.2	5.1
Barley	4.8	4.4
Cotton	0.8	1.0
Sorghum	0.6	1.1
Rice	0.0	0.0
Major crops	96.3	93.8
Other crops	3.7	6.2
Total	100.0	100.0

Long Island Sound, and the Great Lakes regions),

- cropland within established well-head protection areas, and
- cropland subject to scour erosion.

The new enrollment procedures promote rental rate competition among farmers and comply with a 1988 Appropriations Act that establishes the maximum CRP rental payment as the prevailing local rental rates for comparable land. Eligible useful-life easement and wellhead protection bids that satisfy the bid screening criteria are automatically approved for CRP enrollment. During the 10th signup, in March 1991, about 565,000 acres were tentatively accepted. In the 11th signup, in July 1991, an additional 1.12 million acres were tentatively accepted. To date, the total amount of land enrolled in the CRP is just over 35.6 million acres. The 12th signup, announced by the Secretary of Agriculture in July 1991, will be held in June 1992.

Much less of the wheat base has moved into the CRP under the new criterion than was the case for signups 1 through 9 under the FSA. Land enrolled in the 10th and 11th signups shifted away from the Great Plains where wind erosion was dominant to other areas where erosion is primarily caused by water. For example, in the first 9 signups, 62 percent of the accepted acreage was in the Great Plains region but, during the last 2 signups, it was only 32 percent. Due to this shift to areas with more valuable cropland, such as the Corn Belt, the Delta and the Lake States, the government's average annual rental payments have increased to about \$57 per acre per year.

Table B-1 shows the status of the Conservation Reserve Program in relation to principal crops and wheat acreage harvested in 20 major wheat producing States that together represent about 92 percent of 1991 U.S. wheat acreage harvested. In 1991, the total wheat area harvested in the United States was 57.7 million acres, about 19 percent of the principal crop area harvested. Oklahoma, Kansas, Montana, and Washing-

ton each harvested wheat on more than one-half of their principal crop area. On the other hand, Illinois and Indiana harvested wheat on only 6 percent.

Total cropland retired to date under the CRP provisions in the 20 major grain producing States was 28.3 million acres, about 79 percent of the total acreage retired in the United States. Of the retired land in these States, about 19 million acres were in program crop bases, with 9.5 million acres classified as wheat base. Overall, 10.7-million wheat base acres were retired.

In the selected States, the proportion of wheat base in the CRP, in relation to the total principal-crop-area harvested in 1991, was less than 10 percent (except in Montana, Colorado, and Oregon where it ranged between 12 and 15 percent). Compared to the total wheat area harvested, the retired wheat base ranged between 4.5 percent (in Ohio) and 46.4 percent (in Texas). Wheat base retired, as a proportion of total retired crop base, was highest in Oklahoma (75.2 percent), followed by Colorado (71.8 percent), and Oregon (65.5 percent). On the other hand, retired wheat base in Michigan was about 21 percent of its total crop base retired under the CRP.

The Wetland Reserve Program

The second component of the ECARP is the new agricultural Wetlands Reserve Program (WRP). The program's aim is to restore wetlands that were converted to cropland before 1985 to their former wetland status. The program requires a permanent easement (or an easement for the maximum time allowed by a particular State) with the landowner to stop the agricultural use of the cropland and to restore the wetland hydrology. Land eligible for the program includes existing cropped wetlands, prior converted wetlands, and adjacent noncropped wetlands, riparian corridors, and uplands that are functionally related to the restored wetland. The FACT Act allows compatible economic uses of restored wetlands to encourage potential participants.

Congress authorized the restoration of up to 1 million acres of wetlands under the FACT Act. However, the initial House Agriculture Appropriations bill did not provide funding for the WRP.

For fiscal year 1992, Congress approved \$46 million for enrolling up to 50,000 acres in the wetland reserve. The administration budget proposal for fiscal year 1993 includes \$165 million for the WRP. As of January 1992, no land had been enrolled in the program. The proposed regulations to implement the WRP were published in the Federal Register on February 5, 1992.

The WRP is expected to be implemented in a similar manner to the CRP, but WRP requires additional USDA/landowner coordination, as the development of restoration and management plans are required before bids are accepted. Also, proposed regulations call for regional enrollment pools for the WRP, instead of the single, national pool for CRP.

Wetland Enrollment

Under the 1985 FSA, wetlands that had been cropped for at least 2 years between 1981 and 1985 were eligible for the CRP. In the eighth and ninth signups, about 410,000 acres were enrolled in the CRP, mostly from the Prairie Pothole region of North Dakota, South Dakota, and Minnesota. Presently, farmed wetlands are no longer eligible for the CRP, as they are now eligible under the new WRP.

A significant portion of the land likely to enter the WRP would be located in wheat growing areas such as the Prairie Pothole region. Since the regulations for the WRP were not published as of this writing, it is not possible to determine the exact geographical distribution of the acreage that will be enrolled in the 1-million-acre wetland reserve.

However, initial USDA analyses indicate that cropping patterns would be altered if significant amounts of hydric cropland were restored and enrolled in the reserve. Hydric soils are those that are saturated, flooded, or ponded long enough during the crop growing season to develop anaerobic conditions, i.e., a lack of available oxygen. These analyses, which assume a reserve size of 2 to 5 times the WRP, suggest that soybeans, corn, wheat, and oats would be most affected by implementing a wetland reserve (table B-2).⁽¹⁾ In terms of geographical distribution, the acreage enrolled in the wetland reserve likely would be concentrated in the area of the Northern Plains and the Corn Belt (figure B-1).

Figure B-1
Distribution of Land in a 5-Million-Acre Wetland Reserve

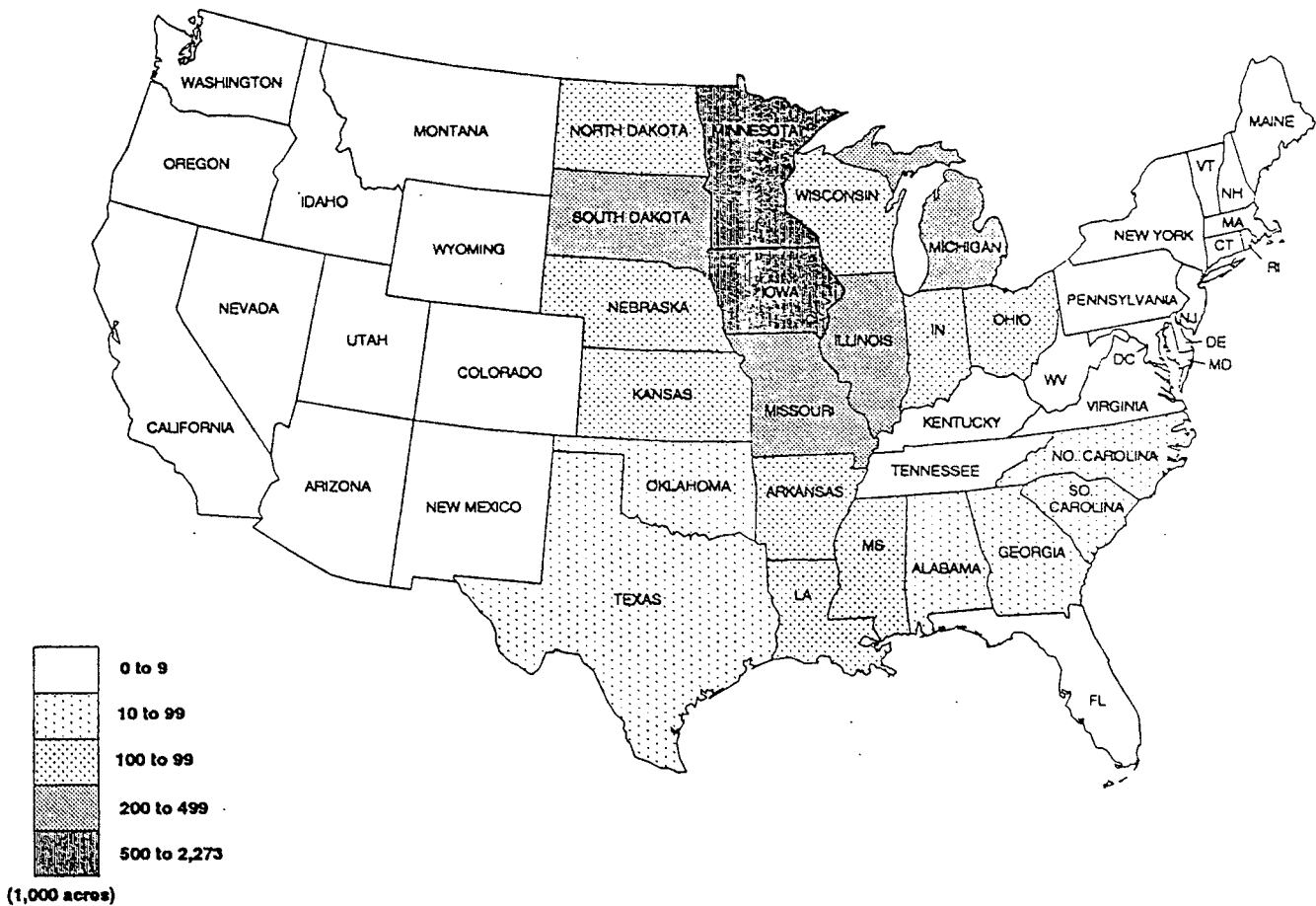
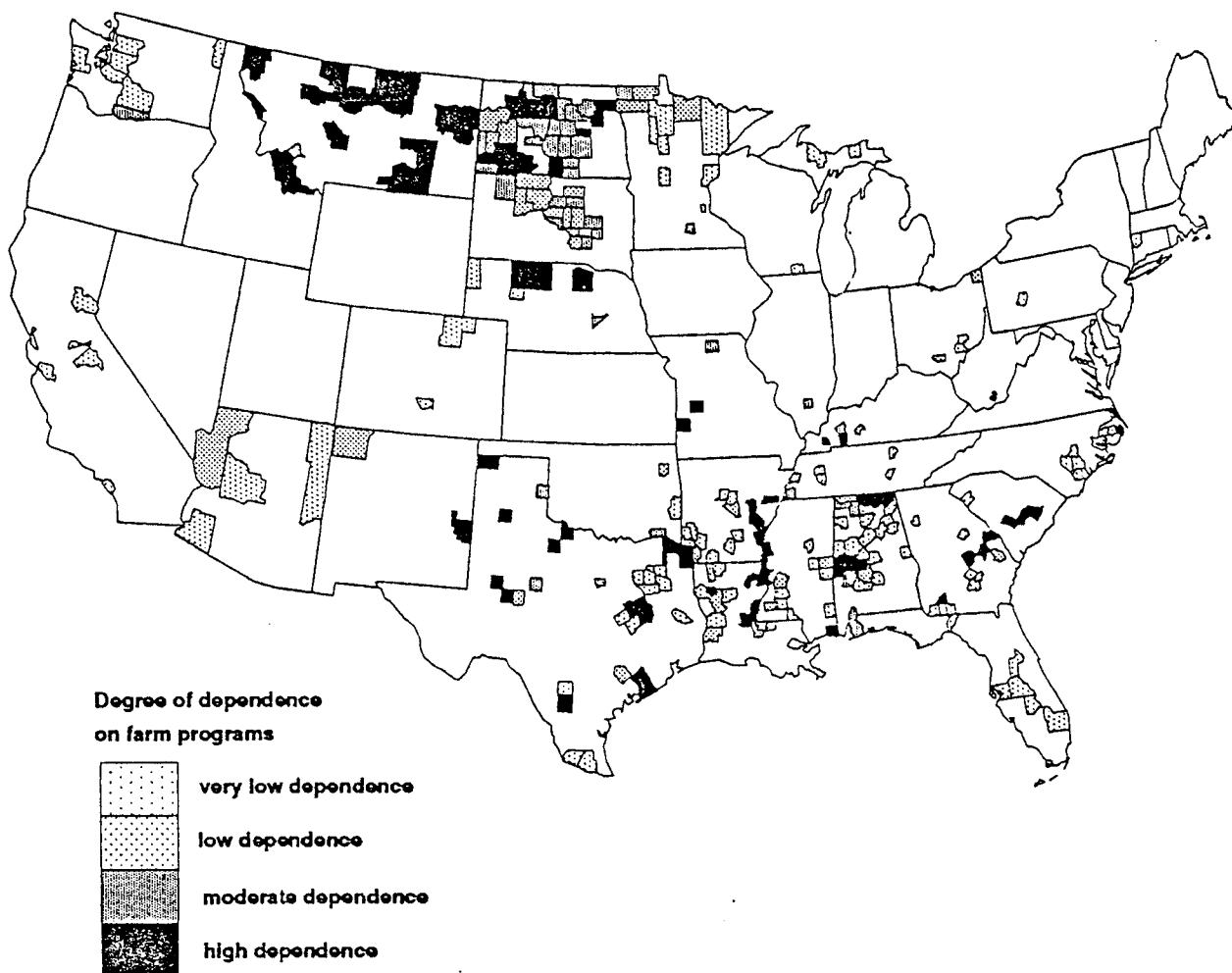


Figure B-2

Where Wetlands and Farm Program Dependence Coincide



Compliance With Conservation Programs

The 1985 FSA linked USDA program benefits with approved conservation performance by establishing the highly erodible land conservation (conservation compliance provisions, “sodbuster”) and wetland conservation (“swampbuster”) provisions. Conservation compliance applies to highly erodible cropland in production during 1981-1985. The sodbuster provisions pertain to highly erodible *potential* cropland, and the swampbuster provision relates to agricultural wetlands.

Producer benefits affected by these provisions include price and income support programs, Federal crop insurance, disaster payments, farm storage-facility

loans, payments for storage of CCC-owned commodities, new loans made, insured, or granted by the Farmer’s Home Administration, agricultural conservation program (ACP) payments, CRP payments, agricultural water-quality-protection project payments, environmental easement program payments, and other payments for programs, such as those for small watersheds and the tree assistance program.

Conservation Compliance Provisions

The conservation compliance provisions required farmers to develop an approved soil conservation plan for their highly erodible cropland by January 1, 1990, and to fully implement the plan by December 31, 1994. Each year,

farmers and ranchers must certify to USDA that they are actively applying conservation plans on their highly erodible cropland. Plans must describe which practices will be used to achieve one of two standards established by technical guides provided by the local Soil Conservation Service field office: (1) the Basic Conservation System (or soil loss tolerance (T) level), or (2) an Alternative Conservation System that is used when the basic system causes unnecessary economic hardships on the producer.

At the end of the contract period, CRP acreage is subject to conservation compliance. If the producer does not comply with the approved plan, he/she loses USDA program benefits for his/her entire farming operation for any period of

Chronology of U.S. Wetlands Policy Changes

- 1849, 1850** **Swampland Acts** — Federal government granted
- 1860** 64.9 million acres to 15 States on the condition that the proceeds for their sale be used to convert wetlands to farmland.
- 1899** **River and Harbor Act** — Established U.S. Army Corps of Engineers' authority for the Nation's navigable waters.
- 1902** **Reclamation Act** — Established a drainage specialist position and staff in USDA to investigate methods and problems involved in agricultural drainage.
- 1944** **Flood Control Act** — Authorized the U.S. Army Corps of Engineers to construct major drainage outlets for draining agricultural lands.
- 1958** **Small Wetlands Acquisition Program (SWAP)** — Protected wetlands through permanent easements and purchases administered by the U.S. Department of the Interior.
- 1972** **Federal Water Pollution Control Act Amendments** — Regulated the discharge of dredge and fill material into navigable waters under the Section 404 permit program, defined to include wetlands. Normal agricultural practices are exempted.
- 1977** **Executive Order 11990** — Established wetland protection as official U.S. Government policy. Ended all direct Federal assistance for wetland conversion.
- 1985** **Food Security Act** — Swampbuster provision eliminated farm program benefits for farmers who plant annual crops on wetland converted after 1985. Violators are denied price support payments, farm storage facility loans, crop insurance, disaster payments, and certain kinds of operating loans. Cropped wetlands are also eligible for enrollment in the Conservation Reserve Program.
- 1986** **Tax Reform Act** — Abolished preferential capital gains tax rates and removed other incentives to convert wetlands to farmland through drainage.
- 1986** **Emergency Wetlands Acquisition Act** — Established the National Wetland Priority Conservation Plan aimed at fulfilling U.S. obligations under the 1986 North American Waterfowl Management Plan (NAWMP).
- 1989** **North American Wetlands Conservation Act and Coastal Wetlands Conservation and Restoration Act** — These laws, enacted jointly, created a wetland trust fund to finance coastal wetland programs and wetland acquisition under NAWMP.
- 1990** **Food, Agriculture, Conservation, and Trade Act** — Established a new Wetlands Reserve Program (WRP) to restore and protect wetlands. This Act also continued the swampbuster provision of the 1985 Food Security Act.

noncompliance. However, under the graduated sanctions provision of the 1990 Act, producers who are found to be not in compliance may receive graduated sanctions if it is the first such violation in 5 years and if good faith was determined.

About 136 million acres of highly erodible cropland are subject to conservation compliance. Of these, some 67 million acres had plans fully implemented by December 1991. The States having the most acres of fully implemented conser-

vation compliance plans are Texas and Kansas. Each has over 12 million acres with plans, and about 8 million (or 70 percent) of those plans have been implemented.

Table B-1 also shows the status of conservation compliance implementation in relation to principal crops and wheat acreage harvested in 20 major wheat producing States. Together these selected States had approved conservation plans on about 101 million acres of erodible land (74.6 percent of the na-

tional total). The acreage with fully implemented plans totalled 52 million or 77.6 percent of the plans fully implemented nationwide. Overall, 49.5 percent of the total acreage required to implement an approved conservation plan had done so by December 1991. Among the major wheat producing States, Kansas had completed about 70 percent of the required conservation plans, while Oklahoma, Montana, and Washington completed plans on less than 45 percent of the required acreage.

Sodbuster

The 1985 FSA authorized the denial of farm program benefits to operators who converted highly erodible land to crop production after December 23, 1985, unless they implemented a conservation plan. Sodbuster's uniform planning goal is the tolerable soil loss level, which is less flexible than the conservation compliance provision. This goal requires the implementation of basic conservation systems to control soil erosion instead of the less costly alternative conservation systems.

About 20 million acres were converted to cropland nationwide between 1975 and 1981 and about 20 percent of that was highly erodible land. The Northern Plains, Mountain States and Corn Belt regions dominated the area converted. Through September 1991, 516 farmers had been found ineligible for program benefits on about 75,000 acres because of violations of the compliance provision regarding conversion of highly erodible land. Most were violations of the sodbuster provision. Overall, sodbusting has not been a major problem since the legislation was passed, mainly because of reduced market incentives to cultivate new cropland.

Swampbuster

According to this provision, a producer becomes ineligible for USDA program benefits for any year in which an annually tilled crop is planted on wetlands, if conversion to cropland commenced after 1985, but before 1990. New swampbuster provisions in the 1990 FACT Act make producers ineligible if they drain a wetland with the intent of, or to have the effect of, making the production of an agricultural commodity possible. The 1990 FACT Act further amended the swampbuster provision to deny benefits until the converted wetland is restored.

However, the Act provided some concessions on compliance and penalties. A new graduated sanctions provision allows an operator to violate swampbuster once in 10 years—if the wetland is restored and conversion occurred unintentionally and in good faith. Penal-

ties range from \$750 to \$10,000 depending upon the severity of wetland destruction. Operators still remain ineligible for farm program benefits until the converted wetland is restored. In the case of intentional conversions, full USDA program benefits are denied. A minimal effect (hydrological and biological) clause has been expanded to allow farmers to deal with nuisance spots.

From 1900 to 1970, USDA provided financial and technical assistance to farmers for wetland drainage. In addition, flood control, navigation, and highway projects contributed to agricultural drainage by facilitating drainage outlets. Most direct incentives ended in the 1970's (Executive Order 11990 issued in 1977) and the swampbuster provision and the Tax Reform Act of 1986 eliminated much indirect Federal assistance for wetland conversion.

Whether swampbuster is effective or not depends upon the overlap of areas having convertible wetlands with the areas highly dependent on Federal program benefits (figure B-2). Of 16 million wetland acres most likely to be converted for cropland, only about 6 million (35 percent) were in areas where program benefits accounted for half of net farm income.⁽¹⁾ By the end of 1991, 245 producers, who had converted 6,192 acres of wetlands, lost eligibility and 195 of these producers lost \$3.7 million in direct payments.

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Appendix table 1--Wheat: Estimated acreage, yield, and production, 1965-91

Year	Planted	Harvested	Yield	Production	Planted	Harvested	Yield	Production
	--1,000 acres--		Bushels per acre	1,000 bushels	--1,000 acres--		Bushels per acre	1,000 bushels
	-----All wheat-----				-----Durum wheat-----			
1965	57,361	49,560	26.5	1,315,603	2,361	2,296	30.4	69,866
1966	54,105	49,613	26.3	1,304,889	2,491	2,423	25.9	62,638
1967	67,264	58,353	25.8	1,507,598	2,826	2,754	24.1	66,443
1968	61,860	54,765	28.4	1,556,635	3,715	3,621	27.5	99,644
1969	53,450	47,146	30.6	1,442,679	3,466	3,420	31.7	108,403
1970	48,739	43,564	31.0	1,351,558	2,167	2,105	25.1	52,771
1971	53,822	47,685	33.9	1,618,636	2,943	2,864	32.1	91,805
1972	54,913	47,303	32.7	1,546,209	2,592	2,550	28.6	72,912
1973	59,254	54,148	31.6	1,710,787	2,952	2,884	27.2	78,455
1974	71,044	65,368	27.3	1,781,918	4,174	4,099	19.8	81,245
1975	74,900	69,499	30.6	2,126,927	4,830	4,680	26.4	123,362
1976	80,395	70,927	30.3	2,148,780	4,748	4,584	29.4	134,914
1977	75,410	66,686	30.7	2,045,527	3,183	3,025	26.4	79,964
1978	65,989	56,495	31.4	1,775,524	4,110	4,024	33.1	133,328
1979	71,424	62,454	34.2	2,134,060	4,042	3,932	27.1	106,654
1980	80,788	71,125	33.5	2,380,934	5,525	4,840	22.4	108,395
1981	88,251	80,642	34.5	2,785,357	5,776	5,655	32.4	183,040
1982	86,232	77,937	35.5	2,764,967	4,290	4,177	34.9	145,863
1983	76,419	61,390	39.4	2,419,824	2,565	2,492	29.3	72,979
1984	79,213	66,928	38.8	2,594,777	3,277	3,219	32.1	103,439
1985	75,535	64,704	37.5	2,424,115	3,207	3,094	36.4	112,510
1986	71,998	60,688	34.4	2,090,570	2,994	2,877	34.0	97,907
1987	65,829	55,945	37.7	2,107,685	3,341	3,279	28.2	92,617
1988	65,529	53,189	34.1	1,812,201	3,336	2,847	15.7	44,831
1989	76,615	62,189	32.7	2,036,618	3,791	3,673	25.1	92,229
1990	77,241	69,283	39.5	2,736,428	3,570	3,507	34.9	122,430
1991	69,906	57,693	34.3	1,980,704	3,253	3,197	32.5	103,957
	-----Winter wheat-----				-----Other spring wheat-----			
1965	45,142	37,586	27.1	1,017,075	9,858	9,678	23.6	228,662
1966	42,746	38,616	27.4	1,057,371	8,868	8,574	21.6	184,880
1967	53,649	45,039	26.5	1,194,119	10,789	10,560	23.4	247,036
1968	48,667	41,929	29.0	1,217,555	9,478	9,215	26.0	239,436
1969	42,338	36,303	31.2	1,131,439	7,646	7,423	27.3	202,837
1970	37,623	32,702	33.4	1,091,744	8,949	8,757	23.6	207,043
1971	38,072	32,370	35.4	1,145,011	12,807	12,451	30.7	381,820
1972	42,183	34,859	34.0	1,186,498	10,138	9,894	29.0	286,799
1973	43,501	38,747	33.0	1,278,220	12,801	12,517	28.3	354,112
1974	52,023	46,778	29.4	1,375,526	14,847	14,491	22.4	325,147
1975	55,954	51,376	32.0	1,642,900	14,116	13,443	26.8	360,665
1976	57,822	49,578	31.5	1,564,118	17,825	16,765	26.8	449,748
1977	56,469	48,772	31.6	1,540,419	15,758	14,889	28.6	425,144
1978	47,549	38,491	31.8	1,222,446	14,330	13,980	30.0	419,750
1979	51,787	43,427	36.9	1,601,234	15,595	15,095	28.2	426,172
1980	57,771	51,635	36.8	1,902,011	17,492	14,650	25.3	370,528
1981	65,547	58,476	35.9	2,097,057	16,928	16,511	30.6	505,260
1982	65,516	57,633	36.0	2,073,560	16,426	16,127	33.8	545,544
1983	62,105	47,584	41.8	1,988,304	11,749	11,314	31.7	358,541
1984	63,419	51,513	40.0	2,060,266	12,517	12,196	35.3	431,072
1985	57,712	47,923	38.1	1,826,625	14,616	13,687	35.4	484,980
1986	53,895	43,170	35.2	1,520,433	15,109	14,641	32.3	472,230
1987	48,806	39,332	39.8	1,565,381	13,682	13,334	33.7	449,687
1988	48,800	39,800	39.2	1,561,910	13,393	10,542	19.5	205,460
1989	55,091	41,509	35.0	1,454,642	17,733	17,007	28.8	489,747
1990	56,948	49,901	40.7	2,030,874	16,723	15,875	36.7	583,124
1991	51,049	39,396	34.8	1,372,182	15,604	15,100	33.4	504,565

Source: National Agricultural Statistics Service, USDA.

Appendix table 2--Wheat classes: Production, 1950-91

Crop year	All wheat	Hard red winter	Hard red spring	Soft red winter	White winter	White spring	Eastern white 1/	Durum
Million bushels								
1950	1,019.3	458.9	207.0	162.5	153.0	NA	NA	37.9
1951	988.2	382.3	256.0	148.1	166.3	NA	NA	35.5
1952	1,306.5	722.9	181.4	193.4	185.7	NA	NA	23.1
1953	1,173.0	504.4	216.8	231.2	206.8	NA	NA	13.8
1954	984.0	488.9	145.3	184.5	160.3	NA	NA	5.0
1955	937.1	415.4	184.0	174.9	143.2	NA	NA	19.6
1956	1,005.3	446.0	177.7	187.7	155.1	NA	NA	38.8
1957	955.7	429.3	168.6	154.6	163.3	NA	NA	39.9
1958	1,457.5	836.4	232.8	192.2	174.4	NA	NA	21.7
1959	1,117.8	619.4	150.5	156.3	171.4	NA	NA	20.2
1960	1,354.7	794.4	187.9	189.8	127.2	21.0	NA	34.4
1961	1,232.3	753.8	116.5	201.5	119.5	19.7	NA	21.3
1962	1,092.0	535.2	178.7	155.6	132.1	20.1	NA	70.3
1963	1,146.8	543.9	167.9	218.3	151.9	13.4	NA	51.4
1964	1,283.4	634.8	179.8	222.4	163.8	14.4	NA	68.2
1965	1,315.6	673.9	209.1	183.2	160.0	19.5	NA	69.9
1966	1,304.9	677.0	174.8	215.0	165.4	10.1	NA	62.6
1967	1,507.6	703.4	230.0	270.2	220.6	17.0	NA	66.4
1968	1,556.6	801.7	228.9	218.1	197.7	10.6	NA	99.6
1969	1,442.7	788.6	189.7	185.2	157.7	13.1	24.1	108.4
1970	1,351.6	755.1	197.8	174.2	162.4	9.3	20.3	52.8
1971	1,618.6	747.8	366.4	211.9	185.3	15.4	19.2	91.8
1972	1,546.2	761.7	275.9	226.4	198.4	10.9	23.1	72.9
1973	1,710.8	961.2	328.2	161.4	155.7	25.8	21.2	78.5
1974	1,781.9	882.6	293.1	272.7	220.3	32.0	36.6	81.2
1975	2,126.9	1,054.8	327.3	330.9	257.2	33.3	36.5	123.4
1976	2,148.8	977.4	411.9	337.4	249.4	37.8	31.4	134.9
1977	2,045.5	996.4	399.1	349.1	194.9	26.1	29.2	80.0
1978	1,775.5	829.9	379.7	188.9	203.6	40.1	16.5	133.3
1979	2,134.1	1,091.6	368.8	309.6	200.0	57.4	29.3	106.7
1980	2,380.9	1,181.3	311.4	441.8	278.9	59.1	33.0	108.4
1981	2,785.4	1,112.1	463.8	678.0	307.1	41.5	38.1	183.0
1982	2,765.0	1,243.6	492.7	588.9	241.1	52.9	20.9	145.9
1983	2,419.8	1,197.8	322.7	504.2	286.2	35.8	35.0	73.0
1984	2,594.8	1,250.6	408.8	531.4	278.3	22.3	43.2	103.4
1985	2,424.1	1,230.1	460.2	368.4	229.1	24.8	44.2	112.5
1986	2,090.6	1,017.8	451.4	292.5	211.2	20.8	32.4	97.9
1987	2,107.7	1,020.8	430.6	349.5	196.7	19.1	17.6	92.6
1988	1,812.2	881.9	181.2	472.7	207.4	24.3	24.4	44.8
1989	2,036.6	711.0	433.5	548.9	194.7	56.3	32.4	92.2
1990	2,736.4	1,198.8	554.7	547.1	285.0	28.4	NA	122.4
1991	1,980.7	901.3	431.2	325.2	145.6	73.3	NA	104.0

NA = Not available.

1/ White wheat grown in Michigan, New York, and Wisconsin; total included in white winter; 1950-68 included in white winter.

Source: National Agricultural Statistics Service, USDA.

Appendix table 3--Wheat classes: Acreage, percentage breakdown by State, 1989-91 1/

State	Winter									Spring 2/				
	Hard red			Soft red			White			Hard red			White	
	1989	1990	1991	1989	1990	1991	1989	1990	1991	1989	1990	1991	1989	1990
	-----Percent-----													
Alabama	--	--	--	100	100	100	--	--	--	--	--	--	--	--
Arizona	100	100	100	--	--	--	--	--	--	--	--	--	--	--
Arkansas	--	--	--	100	100	100	--	--	--	--	--	--	--	--
California	91	93	93	--	--	--	9	7	7	--	--	--	--	--
Colorado	100	100	100	--	--	--	--	--	--	84	84	84	16	16
Delaware	--	--	--	100	100	100	--	--	--	--	--	--	--	--
Florida	--	--	--	100	100	100	--	--	--	--	--	--	--	--
Georgia	--	--	--	100	100	100	--	--	--	--	--	--	--	--
Idaho	17	17	20	--	--	--	83	83	80	45	43	38	55	57
Illinois	2	2	2	98	98	98	--	--	--	--	--	--	--	--
Indiana	--	--	--	100	100	100	--	--	--	--	--	--	--	--
Iowa	70	70	70	30	30	30	--	--	--	--	--	--	--	--
Kansas	99	98	98	1	2	2	--	--	--	--	--	--	--	--
Kentucky	6	6	6	94	94	94	--	--	--	--	--	--	--	--
Louisiana	2	2	2	98	98	98	--	--	--	--	--	--	--	--
Maryland	--	--	--	100	100	100	--	--	--	--	--	--	--	--
Michigan	--	--	--	23	28	28	77	72	72	--	--	--	--	--
Minnesota	100	100	100	--	--	--	--	--	--	100	100	100	--	--
Mississippi	--	--	--	100	100	100	--	--	--	--	--	--	--	--
Missouri	2	3	3	98	97	97	--	--	--	--	--	--	--	--
Montana	100	99	99	--	--	--	--	1	1	100	100	100	--	--
Nebraska	100	100	100	--	--	--	--	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	100	100	100	12	12	12	88	88
New Jersey	--	--	--	100	100	100	--	--	--	--	--	--	--	--
New Mexico	100	100	100	--	--	--	--	--	--	--	--	--	--	--
New York	1	1	1	2	2	2	97	97	97	--	--	--	--	--
North Carolina	--	--	--	100	100	100	--	--	--	--	--	--	--	--
North Dakota	100	100	100	--	--	--	--	--	--	100	100	100	--	--
Ohio	--	--	--	100	100	100	--	--	--	--	--	--	--	--
Oklahoma	100	100	99	--	--	1	--	--	--	--	--	--	--	--
Oregon	1	1	1	--	--	--	99	99	99	15	25	30	85	75
Pennsylvania	--	--	--	100	100	100	--	--	--	--	--	--	--	--
South Carolina	--	--	--	100	100	100	--	--	--	--	--	--	--	--
South Dakota	100	100	100	--	--	--	--	--	--	100	100	100	--	--
Tennessee	--	--	--	100	100	100	--	--	--	--	--	--	--	--
Texas	94	94	94	6	6	6	--	--	--	--	--	--	--	--
Utah	93	93	93	--	--	--	7	7	7	71	71	71	29	29
Virginia	--	--	--	100	100	100	--	--	--	--	--	--	--	--
Washington	10	5	5	--	--	--	90	95	95	25	35	13	75	65
West Virginia	--	--	--	100	100	100	--	--	--	--	--	--	--	--
Wisconsin	--	--	--	93	93	93	7	7	7	100	100	100	--	--
Wyoming	100	100	100	--	--	--	--	--	--	97	100	100	3	--

-- = Not applicable.

1/ Acreage percentages are based on a variety acreage survey collected at 5-year intervals from all wheat-producing States, adjusted as other variety survey information becomes available to USDA's Agricultural Statistics Board. The percentages are used for U.S. wheat class production estimates and forecasts.

2/ Excludes durum.

Source: National Agricultural Statistics Service, USDA.

Appendix table 4--Wheat classes: Estimated acreage, yield, and production, 1979-92 1/

Year	Planted acreage	Harvested acreage	Yield	Production
	---Million acres---		Bu./acre	Million bushels
Hard red winter:				
1979	38.2	31.3	34.88	1,091.6
1980	40.7	35.8	33.00	1,181.3
1981	43.4	37.9	29.34	1,112.1
1982	43.2	37.0	33.61	1,243.6
1983	41.3	30.2	39.66	1,197.8
1984	43.6	34.1	36.67	1,250.6
1985	42.5	34.5	35.66	1,230.1
1986	39.4	31.5	32.31	1,017.8
1987	36.3	28.6	35.69	1,020.8
1988	34.4	26.8	32.91	881.9
1989	37.5	26.1	27.21	711.0
1990	38.0	32.6	36.75	1,198.8
1991	35.5	27.4	32.96	901.3
1992	35.3	NA	NA	NA
Hard red spring:				
1979	14.2	14.0	26.34	368.8
1980	16.3	13.6	22.90	311.4
1981	16.1	15.8	29.35	463.8
1982	15.5	15.2	32.41	492.7
1983	11.1	10.7	30.16	322.7
1984	12.0	11.7	34.94	408.8
1985	14.0	13.1	35.13	460.2
1986	14.6	14.1	32.01	451.4
1987	13.3	13.0	33.12	430.6
1988	13.0	10.1	17.94	181.2
1989	16.5	15.9	27.34	433.5
1990	16.2	15.4	36.08	554.7
1991	14.0	13.5	31.93	431.2
1992	NA	NA	NA	NA
Durum:				
1979	4.0	3.9	27.36	106.7
1980	5.5	4.8	22.58	108.4
1981	5.8	5.7	32.11	183.0
1982	4.3	4.2	34.74	145.9
1983	2.6	2.5	29.20	73.0
1984	3.3	3.2	32.31	103.4
1985	3.2	3.1	36.29	112.5
1986	3.0	2.9	33.76	97.9
1987	3.3	3.3	28.07	92.6
1988	3.3	2.8	15.75	44.8
1989	3.8	3.7	25.11	92.2
1990	3.6	3.5	34.91	122.4
1991	3.3	3.2	32.52	104.0
1992	NA	NA	NA	NA
Soft red winter:				
1979	8.4	7.6	40.74	309.6
1980	11.7	10.6	41.68	441.8
1981	16.7	15.3	44.31	678.0
1982	17.2	15.8	37.27	588.9
1983	15.6	12.8	39.39	504.2
1984	14.5	12.6	42.17	531.4
1985	10.6	9.1	40.48	368.4
1986	10.1	7.7	37.99	292.5
1987	9.0	7.6	45.99	349.5
1988	10.9	9.6	49.24	472.7
1989	13.4	12.0	45.79	548.9
1990	14.2	12.8	42.89	547.1
1991	11.4	9.5	34.41	325.2
1992	10.6	NA	NA	NA
White:				
1979	6.6	5.6	45.96	257.4
1980	6.6	6.3	53.65	338.0
1981	6.2	6.0	58.08	348.5
1982	6.0	5.7	51.58	294.0
1983	5.9	5.3	60.75	322.0
1984	5.8	5.3	56.72	300.6
1985	5.3	4.9	51.82	253.9
1986	4.9	4.5	51.56	232.0
1987	3.9	3.5	61.65	215.8
1988	4.0	3.8	60.95	231.6
1989	5.4	4.5	55.78	251.0
1990	5.2	5.0	62.28	313.4
1991	5.9	4.2	52.26	219.0
1992	4.3 *	NA	NA	NA

1/ 1992 data based on winter wheat seedlings. * Winter only.

Source: National Agricultural Statistics Service and Economic Research Service (estimates), USDA.

Appendix table 5--Wheat: Marketing year supply and disappearance, 1960/61-1991/92 1/

Year Beginning June 1	Supply				Disappearance						
	Begin- ning stocks	Pro- duction	Imports 2/	Total	Domestic use				Exports 2/	Total disap- pearance	
					Food	Seed	Feed 3/	Total			
	Million bushels										
1960/61	1,384.2	1,354.7	8.1	2,747.0	496.5	64.3	30.4	591.0	653.5	1,244.5	1
1961/62	1,502.4	1,232.4	5.9	2,740.7	504.0	56.3	44.0	604.4	715.7	1,320.1	1
1962/63	1,420.6	1,092.0	5.3	2,517.9	502.7	61.4	34.7	598.8	649.4	1,248.2	1
1963/64	1,269.7	1,146.8	4.0	2,420.6	487.9	64.9	28.6	581.5	845.6	1,427.1	
1964/65	993.5	1,283.4	1.8	2,278.7	514.4	65.5	54.9	634.9	722.7	1,357.6	
1965/66	921.1	1,315.6	0.9	2,237.6	517.9	61.5	145.9	725.3	851.8	1,577.1	
1966/67	660.5	1,304.9	1.7	1,967.1	505.1	77.4	100.5	683.1	771.3	1,454.3	
1967/68	512.8	1,507.6	1.0	2,021.4	517.8	71.3	36.8	625.8	765.3	1,391.2	
1968/69	630.2	1,556.6	1.1	2,187.9	522.4	60.8	156.5	739.7	544.2	1,283.9	
1969/70	904.0	1,442.7	2.9	2,349.5	520.1	55.5	188.4	764.0	603.0	1,367.0	
1970/71	982.6	1,351.6	1.4	2,335.7	517.1	62.1	193.0	772.1	740.8	1,512.9	
1971/72	822.8	1,618.6	1.1	2,442.5	523.7	63.2	262.4	849.3	609.8	1,459.1	
1972/73	983.4	1,546.2	1.3	2,530.9	531.8	67.4	199.5	798.7	1,135.1	1,933.8	
1973/74	597.1	1,710.8	2.6	2,310.5	544.3	84.0	125.1	753.4	1,217.0	1,970.4	
1974/75	340.1	1,781.9	3.4	2,125.4	545.0	92.0	34.9	671.9	1,018.5	1,690.4	
1975/76	435.0	2,126.9	2.4	2,564.3	588.5	100.0	37.3	725.8	1,172.9	1,898.7	
1976/77	665.6	2,148.8	2.7	2,817.1	588.0	92.0	74.4	754.4	949.5	1,703.9	
1977/78	1,113.2	2,045.5	1.9	3,160.6	586.5	80.0	192.5	859.0	1,123.8	1,982.8	
1978/79	1,177.8	1,775.5	1.9	2,955.2	592.4	87.0	157.6	837.0	1,194.1	2,031.1	
1979/80	924.1	2,134.1	2.1	3,060.3	596.1	101.0	86.0	783.1	1,375.2	2,158.3	
1980/81	902.0	2,380.9	2.5	3,285.4	610.5	113.0	59.0	782.5	1,513.8	2,296.3	
1981/82	989.1	2,785.4	2.8	3,777.3	602.4	110.0	134.8	847.2	1,770.7	2,617.9	
1982/83	1,159.4	2,765.0	7.6	3,932.0	616.4	97.0	194.8	908.2	1,508.7	2,416.9	
1983/84	1,515.1	2,419.8	3.8	3,938.8	642.6	100.0	371.2	1,113.8	1,426.4	2,540.2	
1984/85	1,398.6	2,594.8	9.4	4,002.8	651.0	98.0	407.1	1,156.1	1,421.4	2,577.6	
1985/86	1,425.2	2,424.1	16.3	3,865.6	674.3	93.0	284.2	1,051.5	909.1	1,960.7	
1986/87	1,905.0	2,090.6	21.3	4,016.8	712.2	84.0	401.2	1,197.4	998.5	2,195.9	
1987/88	1,820.9	2,107.7	16.1	3,944.7	720.7	85.0	280.3	1,086.0	1,597.8	2,683.8	
1988/89	1,260.8	1,812.2	22.7	3,095.7	725.8	103.0	146.1	974.9	1,419.2	2,394.1	
1989/90	701.6	2,036.6	23.4	2,761.7	753.0	100.3	138.6	991.9	1,233.3	2,225.2	
1990/91	536.5	2,736.4	36.4	3,309.3	795.9	90.3	489.2	1,375.4	1,067.9	2,443.3	
1991/92 5/	865.9	1,980.7	35.0	2,881.6	775.0	92.0	350.0	1,217.0	1,275.0	2,492.0	

NA = Not available.

1/ Total may not add because of rounding. 2/ Imports and exports include flour and other products expressed in wheat equivalent.
3/ Residual; approximates feed use and includes negligible quantities used for distilled spirits. 4/ Includes outstanding and
5/ Projected.

Appendix table 6--Wheat: Quarterly supply and disappearance, 1976/77-1991/92 1/

Year and periods beginning June 1	Supply				Disappearance					
	Beginning stocks	Production	Imports 2/	Total	Domestic use				Exports 2/	Total disappearance
					Food	Seed	Feed 3/	Total		
Million bushels										
1976/77:										
June-Aug.	665.6	2,148.8	0.8	2,815.2	150.0	1.0	-3	148.0	282.0	430.0
Sept.-Nov.	2,385.2	---	0.5	2,385.7	153.0	64.0	-2.8	214.2	277.3	491.5
Dec.-Feb.	1,894.2	---	0.4	1,894.6	144.8	1.0	45	190.8	178.9	369.7
Mar.-May	1,524.9	---	1.0	1,525.9	140.2	26.0	35.2	201.4	211.3	412.7
Mkt. year	665.6	2,148.8	2.7	2,817.1	588.0	92.0	74.4	754.4	949.5	1,703.9
1977/78:										
June-Aug.	1,113.2	2,045.5	0.7	3,159.4	142.7	1.0	117.1	260.8	266.9	527.7
Sept.-Nov.	2,631.7	---	0.5	2,632.2	154.3	54.0	37	245.3	247.5	492.8
Dec.-Feb.	2,139.4	---	0.4	2,139.8	143.7	1.0	28.3	173.0	260.2	433.2
Mar.-May	1,706.6	---	0.3	1,706.9	145.8	24.0	10.1	179.9	349.2	529.1
Mkt. year	1,113.2	2,045.5	1.9	3,160.6	586.5	80.0	192.5	859.0	1,123.8	1,982.8
1978/79:										
June-Aug.	1,177.8	1,775.5	0.6	2,953.9	145.2	1.0	80.8	227.0	366.8	593.8
Sept.-Nov.	2,360.1	---	0.5	2,360.6	151.8	58.0	33	242.8	342.2	585.0
Dec.-Feb.	1,775.6	---	0.4	1,776.0	145.9	2.0	21.4	169.3	238.0	407.3
Mar.-May	1,368.7	---	0.4	1,369.1	149.5	26.0	22.3	197.8	247.2	445.0
Mkt. year	1,177.8	1,775.5	1.9	2,955.2	592.4	87.0	157.5	836.9	1,194.2	2,031.1
1979/80:										
June-Aug.	924.1	2,134.1	0.6	3,058.8	150.1	1.0	38.1	189.2	374.6	563.8
Sept.-Nov.	2,495.0	---	0.6	2,495.6	159.3	66.0	-8.5	216.8	402.8	619.6
Dec.-Feb.	1,876.0	---	0.5	1,876.5	148.4	3.0	31.1	182.5	301.5	484.0
Mar.-May	1,392.5	---	0.4	1,392.9	138.3	31.0	25.2	194.5	296.4	490.9
Mkt. year	924.1	2,134.1	2.1	3,060.3	596.1	101.0	85.9	783.0	1,375.3	2,158.3
1980/81:										
June-Aug.	902.0	2,380.9	0.8	3,283.7	144.2	2.0	48.1	194.3	375.4	569.7
Sept.-Nov.	2,714.0	---	0.6	2,714.6	162.1	76.0	4.9	243.0	379.3	622.3
Dec.-Feb.	2,092.3	---	0.6	2,092.9	158.8	4.0	8.1	170.9	399.2	570.1
Mar.-May	1,522.8	---	0.5	1,523.3	145.4	31.0	-2.1	174.3	359.9	534.2
Mkt. year	902.0	2,380.9	2.5	3,285.4	610.5	113.0	59	782.5	1,513.8	2,296.3
1981/82										
June-Aug.	989.1	2,785.4	0.7	3,775.2	149.2	1.0	144.9	295.1	424.1	719.2
Sept.-Nov.	3,056.0	---	0.8	3,056.8	161.7	78.0	-7.1	232.6	485.8	718.4
Dec.-Feb.	2,338.4	---	0.7	2,339.1	150.1	4.0	-7.6	146.5	415.0	561.5
Mar.-May	1,777.6	---	0.6	1,778.2	141.4	27.0	4.6	173.0	445.8	618.8
Mkt. year	989.1	2,785.4	2.8	3,777.3	602.4	110.0	134.8	847.2	1,770.7	2,617.9
1982/83:										
June-Aug.	1,159.4	2,765.0	1.2	3,925.6	152.9	1.0	131.3	285.2	411.1	696.3
Sept.-Nov.	3,229.3	---	3.0	3,232.3	159.5	74.0	18.8	252.3	337.2	589.5
Dec.-Feb.	2,642.8	---	2.6	2,645.4	152.4	3.0	24.2	179.6	393.8	573.4
Mar.-May	2,072.0	---	0.8	2,072.8	151.6	19.0	20.5	191.1	366.6	557.7
Mkt. year	1,159.4	2,765.0	7.6	3,932.0	616.4	97.0	194.8	908.2	1,508.7	2,416.9
1983/84:										
June-Aug.	1,515.1	2,419.8	0.7	3,935.6	158.7	1.0	196.1	355.8	346.7	702.5
Sept.-Nov.	3,233.1	---	0.9	3,234.0	163.1	75.0	100.5	338.6	359.7	698.3
Dec.-Feb.	2,535.7	---	1.1	2,536.8	166.8	3.0	48.3	218.1	367.1	585.3
Mar.-May	1,951.5	---	1.1	1,952.6	154.0	21.0	26.2	201.2	352.8	554.0
Mkt. year	1,515.1	2,419.8	3.8	3,938.8	642.6	100.0	371.2	1,113.8	1,426.4	2,540.2

See footnotes at end of table.

Appendix table 6--Wheat: Quarterly supply and disappearance, 1976/77-1991/92--Continued 1/

Year and periods beginning June 1	Supply				Disappearance					
	Beginning stocks	Production	Imports 2/	Total	Domestic use				Exports 2/	Total disappearance
					Food	Seed	Feed 3/	Total		
----- Million bushels -----										
1984/85:										
June-Aug.	1,398.6	2,594.8	3.8	3,997.2	157.8	1.0	279.6	438.4	398.7	837.1
Sept.-Nov.	3,160.1	---	2.2	3,162.3	168.5	69.0	101.5	339.0	484.8	823.8
Dec.-Feb.	2,338.5	---	1.1	2,339.6	164.2	4.0	35.5	203.7	335.1	538.8
Mar.-May	1,800.8	---	2.3	1,803.1	160.5	24.0	-9.5	175.0	202.9	377.9
Mkt. year	1,398.6	2,594.8	9.4	4,002.8	651.0	98.0	407.1	1,156.1	1,421.4	2,577.6
1985/86:										
June-Aug.	1,425.2	2,424.1	5.1	3,854.4	165.8	1.0	235.5	402.3	248.6	650.9
Sept.-Nov.	3,203.5	---	5.1	3,208.6	185.6	63.0	65.9	314.4	250.7	565.2
Dec.-Feb.	2,643.4	---	2.7	2,646.1	162.2	4.0	1.8	168.0	222.3	390.3
Mar.-May	2,255.8	---	3.5	2,259.3	160.8	25.0	-18.9	166.8	187.4	354.3
Mkt. year	1,425.2	2,424.1	16.3	3,865.6	674.3	93.0	284.2	1,051.5	909.1	1,960.7
1986/87:										
June-Aug.	1,905.0	2,090.6	4.3	3,999.9	171.2	1.0	352.3	524.4	318.9	843.3
Sept.-Nov.	3,156.5	---	3.6	3,160.1	192.8	57.0	-20.8	229.0	257.7	486.7
Dec.-Feb.	2,673.5	---	6.0	2,679.5	171.7	3.0	48.7	223.4	205.7	429.1
Mar.-May	2,250.4	---	7.3	2,257.7	176.6	23.0	20.9	220.5	216.3	436.8
Mkt. year	1,905.0	2,090.6	21.3	4,016.8	712.2	84.0	401.2	1,197.4	998.5	2,195.9
1987/88:										
June-Aug.	1,820.9	2,107.7	2.7	3,931.3	181.0	1.0	363.8	545.8	409.0	954.8
Sept.-Nov.	2,976.5	---	4.5	2,981.0	193.0	58.0	-79.1	172.0	308.5	480.4
Dec.-Feb.	2,500.6	---	3.7	2,504.3	172.1	3.0	-7.3	167.7	413.0	580.8
Mar.-May	1,923.5	---	5.1	1,928.7	174.6	23.0	2.9	200.5	467.3	667.8
Mkt. year	1,820.9	2,107.7	16.1	3,944.7	720.7	85.0	280.3	1,086.0	1,597.8	2,683.9
1988/89:										
June-Aug.	1,260.8	1,812.2	8.6	3,081.6	183.3	1.0	282.2	466.4	361.6	828.1
Sept.-Nov.	2,253.6	---	6.3	2,259.8	197.3	67.0	-49.4	214.9	329.0	543.9
Dec.-Feb.	1,715.9	---	3.7	1,719.6	173.4	3.0	-45.1	131.3	360.5	491.9
Mar.-May	1,227.7	---	4.2	1,231.9	171.8	32.0	-41.6	162.2	368.0	530.2
Mkt. year	1,260.8	1,812.2	22.7	3,095.7	725.8	103.0	146.1	974.9	1,419.2	2,394.1
1989/90:										
June-Aug.	701.6	2,036.6	5.9	2,744.1	190.7	1.6	263.9	456.2	369.9	826.1
Sept.-Nov.	1,918.0	---	7.1	1,925.2	191.6	68.4	-85.9	174.1	328.6	502.7
Dec.-Feb.	1,422.5	---	4.7	1,427.1	185.7	2.8	35.9	224.4	259.7	484.0
Mar.-May	943.1	---	5.8	948.9	185.0	27.5	-75.3	137.2	275.2	412.4
Mkt. year	701.6	2,036.6	23.4	2,761.7	753.0	100.3	138.6	991.9	1,233.3	2,225.2
1990/91:										
June-Aug.	536.5	2,736.4	8.0	3,280.9	196.4	1.6	404.9	602.9	268.1	871.0
Sept.-Nov.	2,409.9	---	13.4	2,423.3	211.2	60.5	-34.7	237.0	278.0	515.0
Dec.-Feb.	1,908.3	---	7.8	1,916.0	192.7	2.0	99.6	294.3	225.5	519.8
Mar.-May	1,396.3	---	7.2	1,403.5	195.6	26.2	19.4	241.2	296.3	537.6
Mkt. year	536.5	2,736.4	36.4	3,309.3	795.9	90.3	489.2	1,375.4	1,067.9	2,443.3
1991/92: 5/										
June-Aug.	865.9	1,980.7	7.8	2,854.4	177.4	1.5	382.1	561.0	252.7	813.7
Sept.-Nov.	2,040.7	---	7.2	2,047.9	203.7	59.6	-20.9	242.4	363.4	605.8
Dec.-Feb.	1,442.1	---								
Mar.-May										
Mkt. year	865.9	1,980.7	35.0	2,881.6	775.0	92.0	350.0	1,217.0	1,275.0	2,492.0

--- = Not applicable.

1/ Totals may not add because of rounding. 2/ Imports and exports include flour and other products expressed in wheat equiv approximates feed use and includes negligible quantities used for distilled spirits. 4/ Includes outstanding and reserve loan

Appendix table 7--Wheat: Farm prices, support prices, and ending stocks, 1950/51-1992/93

Crop year	Ending stocks				Price received	Loan rate	Target price	Direct payment
	CCC	FOR 1/	Free	Total 2/				
-----Million bushels-----				-----\$/bushel-----				
1950/51	160	---	332	492	2.00	1.99	---	---
1951/52	82	---	247	330	2.11	2.18	---	---
1952/53	292	---	380	672	2.09	2.20	---	---
1953/54	714	---	279	994	2.04	2.21	---	---
1954/55	971	---	139	1,109	2.12	2.24	---	---
1955/56	922	---	209	1,130	1.98	2.08	---	---
1956/57	808	---	196	1,004	1.97	2.00	---	---
1957/58	813	---	149	962	1.93	2.00	---	---
1958/59	1,084	---	284	1,368	1.75	1.82	---	---
1959/60	1,198	---	186	1,384	1.76	1.81	---	---
1960/61	1,225	---	278	1,502	1.74	1.78	---	---
1961/62	1,074	---	346	1,421	1.83	1.79	---	---
1962/63	1,102	---	168	1,270	2.04	2.00	---	---
1963/64	800	---	194	993	1.85	1.82	---	4/ 0.18
1964/65	635	---	286	921	1.37	1.30	---	5/ 0.70
1965/66	299	---	361	660	1.35	1.25	---	0.75
1966/67	122	---	391	513	1.63	1.25	---	1.32
1967/68	100	---	530	630	1.39	1.25	---	1.36
1968/69	140	---	765	904	1.24	1.25	---	1.38
1969/70	277	---	705	983	1.25	1.25	---	1.52
1970/71	353	---	470	823	1.33	1.25	---	1.57
1971/72	355	---	628	983	1.34	1.25	---	1.63
1972/73	6	---	591	597	1.76	1.25	---	1.34
1973/74	1	---	340	340	3.95	1.25	---	0.68
1974/75	---	---	435	435	4.09	1.37	2.05	---
1975/76	---	---	666	666	3.56	1.37	2.05	---
1976/77	---	---	1,113	1,113	2.73	2.25	2.29	---
1977/78	48	342	788	1,178	2.33	2.25	2.90	0.65
1978/79	50	393	481	924	2.98	2.35	3.40	0.52
1979/80	188	260	454	902	3.80	2.50	3.40	---
1980/81 *	200	360	429	989	3.99	3.00	3/ 3.63	---
1981/82 *	190	562	407	1,159	3.69	3.20	3.81	6/ 0.15
1982/83 *	192	1,061	262	1,515	3.45	3.55	4.05	0.50
1983/84 *	188	611	600	1,399	3.51	3.65	4.30	0.65
1984/85 *	378	7/ 654	393	1,425	3.39	3.30	4.38	1.00
1985/86 *	602	7/ 433	870	1,905	3.08	3.30	4.38	1.08
1986/87 *	830	7/ 463	528	1,821	2.42	2.40	4.38	1.98
1987/88 *	283	467	511	1,261	2.57	2.28	4.38	1.81
1988/89 *	190	287	225	702	3.72	2.21	4.23	0.69
1989/90 *	117	144	275	536	3.72	2.06	4.10	0.32
1990/91 *	163	14	689	866	2.61	1.95	4.00	1.28
1991/92 *	150	40	200	390	3.00-3.10	2.04	4.00	8/ 1.35
1992/93 * 9/	NA	NA	NA	NA	NA	2.21	4.00	0.65

--- = Not applicable.

* Includes Food security reserve. 1/ Farmer-owned reserve. 2/ Total may not add because of rounding. 3/ Growers who planted in excess of their normal crop acreage were eligible for a target price of \$3.08 a bushel. 4/ Price support payment. 5/ Value of domestic marketing certificate, 1964/65-1973/74. 6/ Deficiency payment, 1981/82 to date. 7/ Includes special producer storage loan program. 8/ Winter wheat option 1.25. 9/ Projected.

Appendix table 8--Wheat: Status of price support loans on specified dates, 1966/67-1991/92

Crop year	Total stocks	Total CCC inventory	Outstanding CCC loans	Farmer-owned reserve 1/	Unencumbered stocks
Million bushels					
1966/67:					
Jun. 1	917.3	449.9	133.8	0.0	333.6
Sept. 1	660.5	420.4	96.5	0.0	143.6
Dec. 1	1,434.2	300.1	134.4	0.0	999.7
Mar. 1	1,047.5	215.6	153.1	0.0	678.8
1967/68:					
Jun. 1	699.2	147.0	129.2	0.0	423.0
Sept. 1	512.8	137.2	86.3	0.0	289.3
Dec. 1	1,556.2	115.4	201.8	0.0	1,239.0
Mar. 1	1,209.7	109.0	252.5	0.0	848.2
1968/69:					
Jun. 1	838.1	103.6	239.3	0.0	495.2
Sept. 1	630.2	103.6	227.2	0.0	299.4
Dec. 1	1,679.3	101.7	472.7	0.0	1,104.9
Mar. 1	1,341.4	100.4	536.2	0.0	704.8
1969/70:					
Jun. 1	1,109.5	98.8	553.7	0.0	457.0
Sept. 1	904.0	143.3	493.6	0.0	267.1
Dec. 1	1,872.4	166.2	725.9	0.0	980.3
Mar. 1	1,532.8	168.8	705.5	0.0	658.5
1970/71:					
Jun. 1	1,197.2	167.6	654.5	0.0	375.1
Sept. 1	982.6	289.6	620.0	0.0	73.0
Dec. 1	1,788.5	296.9	534.1	0.0	957.5
Mar. 1	1,410.0	282.9	477.0	0.0	650.1
1971/72:					
Jun. 1	1,060.4	259.8	403.1	0.0	397.5
Sept. 1	882.8	358.6	282.8	0.0	241.4
Dec. 1	1,873.8	376.9	425.9	0.0	1,071.0
Mar. 1	1,547.6	369.2	485.9	0.0	692.5
1972/73:					
Jun. 1	1,210.7	363.6	457.4	0.0	389.7
Sept. 1	983.4	366.1	428.3	0.0	189.0
Dec. 1	1,870.9	294.5	367.8	0.0	1,208.6
Mar. 1	1,399.0	267.3	304.9	0.0	826.8
1973/74:					
Jun. 1	927.3	222.0	204.8	0.0	500.5
Sept. 1	597.1	212.6	125.7	0.0	258.8
Dec. 1	1,451.6	139.7	49.4	0.0	1,262.5
Mar. 1	928.3	139.1	32.2	0.0	757.0
1974/75:					
Jun. 1	548.1	135.8	1.1	0.0	411.2
Sept. 1	340.1	133.0	0.4	0.0	206.7
Dec. 1	1,562.1	17.3	24.9	0.0	1,519.9
Mar. 1	1,107.5	15.6	20.7	0.0	1,071.2
1975/76:					
Jun. 1	662.1	13.0	14.1	0.0	635.0
Sept. 1	2,100.7	0.9	13.6	0.0	2,086.2
Dec. 1	1,548.3	0.3	19.9	0.0	1,528.1
Mar. 1	1,085.5	0.2	31.5	0.0	1,053.8
1976/77:					
Jun. 1	665.6	0.2	21.4	0.0	644.0
Sept. 1	2,385.2	0.0	32.9	0.0	2,352.3
Dec. 1	1,894.2	0.0	151.4	0.0	1,742.8
Mar. 1	1,524.9	0.2	285.5	0.0	1,239.2
1977/78:					
Jun. 1	1,113.2	0.1	378.2	0.0	734.9
Sept. 1	2,631.7	7.8	715.4	10.4	1,898.1
Dec. 1	2,139.4	29.0	724.0	44.5	1,341.9
Mar. 1	1,706.6	39.1	590.9	100.2	976.4
1978/79:					
Jun. 1	1,177.8	48.3	266.3	341.7	521.5
Sept. 1	2,360.1	49.4	184.0	389.7	1,737.0
Dec. 1	1,775.6	50.0	188.9	407.2	1,129.5
Mar. 1	1,368.7	50.3	170.6	411.2	736.6

See footnote at end of table.

Continued--

Appendix table 8--Wheat: Status of price support loans on specified dates, 1966/67-1991/92--Continued

Crop year	Total stocks	Total CCC inventory	Outstanding CCC loans	Farmer-owned reserve 1/	Unencumbered stocks
Million bushels					
1979/80:					
Jun. 1	924.1	51.1	121.7	403.1	348.2
Sept. 1	2,495.0	49.9	94.3	259.8	2,091.0
Dec. 1	1,876.0	49.9	141.4	233.8	1,450.9
Mar. 1	1,392.5	49.5	133.1	240.2	969.7
1980/81:					
Jun. 1	902.0	187.8	99.3	259.9	355.0
Sept. 1	2,714.0	202.1	96.7	211.0	2,204.2
Dec. 1	2,092.3	202.9	128.2	210.5	1,550.7
Mar. 1	1,522.8	203.2	114.3	303.8	901.5
1981/82:					
Jun. 1	989.1	199.7	54.6	359.6	375.2
Sept. 1	3,056.0	195.4	147.0	398.6	2,315.0
Dec. 1	2,338.4	190.6	195.4	459.1	1,493.3
Mar. 1	1,777.6	190.2	182.2	515.2	890.0
1982/83:					
Jun. 1	1,159.4	190.3	112.0	560.4	296.7
Sept. 1	3,229.3	193.3	77.5	763.3	2,195.2
Dec. 1	2,642.8	189.7	105.6	986.3	1,361.2
Mar. 1	2,072.0	184.6	92.5	1,117.1	677.8
1983/84:					
Jun. 1	1,515.1	192.0	65.2	1,060.6	197.3
Sept. 1	3,233.1	365.0	294.1	824.8	1,749.2
Dec. 1	2,535.7	375.8	396.0	736.6	1,027.3
Mar. 1	1,951.5	313.8	443.9	610.7	583.1
1984/85:					
Jun. 1	1,398.6	188.0	379.1	611.2	220.3
Sept. 1	3,160.1	278.1	254.9	657.9	1,969.2
Dec. 1	2,338.5	359.4	247.2	674.9	1,057.0
Mar. 1	1,800.8	375.7	218.4	673.8	532.9
1985/86:					
Jun. 1	1,425.2	377.6	175.0	657.1	215.5
Sept. 1	3,203.5	406.7	493.7	689.5	1,613.6
Dec. 1	2,643.4	517.1	734.9	653.7	737.7
Mar. 1	2,255.8	526.3	770.8	633.1	325.6
1986/87:					
Jun. 1	1,905.0	601.7	677.7	596.4	29.2
Sept. 1	3,156.5	793.8	455.8	629.9	1,277.0
Dec. 1	2,673.5	863.9	527.6	657.7	624.3
Mar. 1	2,250.4	905.3	419.8	662.6	262.7
1987/88:					
Jun. 1	1,820.9	830.1	235.6	631.8	123.4
Sept. 1	2,976.5	798.8	245.1	597.5	1,335.1
Dec. 1	2,500.6	755.4	383.1	553.4	808.7
Mar. 1	1,923.5	450.1	293.8	517.9	661.7
1988/89:					
Jun. 1	1,260.8	283.0	177.5	466.8	333.5
Sept. 1	2,253.6	250.0	108.1	391.0	1,504.5
Dec. 1	1,715.9	213.0	93.1	381.2	1,028.6
Mar. 1	1,227.7	203.2	46.9	377.9	599.7
1989/90:					
Jun. 1	701.6	190.5	19.2	287.0	204.9
Sept. 1	1,918.0	167.9	48.2	211.4	1,490.5
Dec. 1	1,422.5	154.5	80.4	173.6	1,014.0
Mar. 1	943.1	136.5	65.4	153.6	587.6
1990/91:					
Jun. 1	536.5	116.6	30.0	143.9	246.0
Sept. 1	2,409.9	104.6	120.3	118.8	2,066.2
Dec. 1	1,908.3	129.9	260.9	64.6	1,452.9
Mar. 1	1,396.3	152.5	328.6	19.1	896.1
1991/92:					
Jun. 1	865.9	162.7	216.8	13.7	472.7
Sept. 1	2,040.7	162.8	149.1	76.1	1,652.7
Dec. 1	1,442.1	160.7	105.3	126.7	1,049.4
Mar. 1					

1/ Includes any quantity in the special producer storage loan program.

Source: Agricultural Stabilization and Conservation Service, USDA.

Appendix table 9--Wheat classes: Marketing year supply and disappearance, 1974/75-1991/92 1/

Year beginning June 1	Supply			Disappearance			Ending stocks May 31
	Beginning stocks	Pro-duction	Total 2/	Domestic use	Exports	Total	
Million bushels							
1974/75:							
Hard winter	170	883	1,053	318	510	828	225
Hard spring	87	293	382	148	130	278	104
Soft red	23	273	296	123	136	259	37
White	27	252	280	42	195	237	43
Durum	33	81	114	41	47	88	26
All classes	340	1,782	2,125	672	1,018	1,690	435
1975/76:							
Hard winter	225	1,055	1,280	323	581	904	376
Hard spring	104	327	432	156	160	316	116
Soft red	37	331	368	142	165	307	61
White	43	291	334	59	215	274	60
Durum	26	123	150	45	52	97	53
All classes	435	2,127	2,564	725	1,173	1,898	666
1976/77:							
Hard winter	376	978	1,354	330	418	748	606
Hard spring	116	412	529	155	124	279	250
Soft red	61	337	398	145	181	326	72
White	60	287	347	68	186	254	93
Durum	53	135	189	56	41	97	92
All classes	666	2,149	2,817	754	950	1,704	1,113
1977/78:							
Hard winter	606	997	1,603	436	535	971	632
Hard spring	250	399	650	159	156	315	335
Soft red	72	349	421	153	197	350	71
White	93	221	314	67	174	241	73
Durum	92	80	173	44	62	106	67
All classes	1,113	2,046	3,161	859	1,124	1,983	1,178
1978/79:							
Hard winter	632	830	1,462	429	610	1,039	423
Hard spring	335	380	715	163	232	395	320
Soft red	71	189	260	138	95	233	27
White	73	243	316	63	185	248	68
Durum	67	133	202	44	72	116	86
All classes	1,178	1,775	2,955	837	1,194	2,031	924
1979/80:							
Hard winter	423	1,092	1,515	350	725	1,075	440
Hard spring	320	369	690	188	217	405	285
Soft red	27	309	336	142	154	296	40
White	68	257	325	53	196	249	76
Durum	86	107	194	50	83	133	61
All classes	924	2,134	3,060	783	1,375	2,158	902
1980/81:							
Hard winter	440	1,181	1,621	379	701	1,080	541
Hard spring	285	312	598	153	188	341	257
Soft red	40	442	482	145	299	444	38
White	76	338	414	54	267	321	93
Durum	61	108	171	52	59	111	60
All classes	902	2,381	3,286	783	1,514	2,297	989
1981/82:							
Hard winter	541	1,112	1,653	361	754	1,115	ERR
Hard spring	257	464	722	171	205	376	ERR
Soft red	38	678	716	196	460	656	ERR
White	93	348	441	62	270	332	ERR
Durum	60	183	245	57	82	139	ERR
All classes	989	2,785	3,777	847	1,771	2,618	ERR
1982/83:							
Hard winter	538	1,243	1,781	348	679	1,027	754
Hard spring	346	492	842	195	239	434	408
Soft red	60	590	650	251	325	576	74
White	109	294	403	53	207	260	143
Durum	106	146	256	61	59	120	136
All classes	1,159	2,765	3,932	908	1,509	2,417	1,515

See footnotes at end of table.

Continued--

Appendix table 9--Wheat classes: Marketing year supply and disappearance, 1974/75-1991/92 1/--Continued

Year beginning June 1	Supply			Disappearance			Ending stocks May 31
	Beginning stocks	Pro- duction	Total 2/	Domestic use	Exports	Total	
Million bushels							
1983/84:							
Hard winter	754	1,198	1,952	503	704	1,207	745
Hard spring	408	323	732	198	220	418	314
Soft red	74	504	578	284	220	504	74
White	143	322	465	78	220	298	167
Durum	136	73	212	51	62	113	99
All classes	1,515	2,420	3,938	1,114	1,426	2,540	1,399
1984/85:							
Hard winter	745	1,251	1,996	564	715	1,279	717
Hard spring	314	409	727	173	183	356	371
Soft red	74	531	605	289	252	541	64
White	167	301	469	86	210	296	173
Durum	99	103	206	45	61	106	100
All classes	1,399	2,595	4,002	1,157	1,421	2,578	1,425
1985/86:							
Hard winter	717	1,230	1,947	545	393	938	1,009
Hard spring	371	460	841	178	165	343	498
Soft red	64	367	431	204	148	352	79
White	173	254	428	80	150	230	198
Durum	100	113	216	42	53	95	121
All classes	1,425	2,424	3,865	1,051	909	1,960	1,905
1986/87:							
Hard winter	1,009	1,017	2,026	624	429	1,053	973
Hard spring	498	451	957	268	199	467	490
Soft red	79	292	371	180	114	294	77
White	198	232	437	77	175	252	185
Durum	121	98	225	49	82	131	95
All classes	1,905	2,091	4,017	1,197	999	2,196	1,821
1987/88 :							
Hard winter	973	1,019	1,992	514	911	1,425	567
Hard spring	490	431	925	268	255	523	402
Soft red	77	349	427	192	160	352	75
White	185	216	403	59	210	269	135
Durum	95	93	197	52	62	114	83
All classes	1,821	2,108	3,945	1,086	1,598	2,684	1,261
1988/89:							
Hard winter	567	882	1,449	507	639	1,146	302
Hard spring	402	181	590	176	195	371	219
Soft red	75	473	547	193	315	508	39
White	135	232	370	40	250	290	81
Durum	83	45	139	59	20	79	60
All classes	1,261	1,812	3,096	975	1,419	2,394	702
1989/90 :							
Hard winter	302	711	1,013	438	360	798	215
Hard spring	219	433	660	225	280	505	155
Soft red	39	549	588	212	345	557	32
White	81	251	335	57	193	250	85
Durum	60	92	165	60	55	115	50
All classes	702	2,037	2,762	992	1,233	2,225	536
1990/91:							
Hard winter	215	1,199	1,414	686	368	1,054	360
Hard spring	155	555	717	239	201	440	277
Soft red	32	547	579	269	230	499	80
White	85	313	408	105	216	321	87
Durum	50	122	192	76	53	129	62
All classes	536	2,736	3,309	1,375	1,068	2,443	866
1991/92: 3/							
Hard winter	360	901	1,262	540	570	1,110	152
Hard spring	277	431	723	243	380	623	100
Soft red	80	325	405	264	105	369	36
White	87	219	308	91	175	266	42
Durum	62	104	184	80	45	125	59
All classes	866	1,981	2,882	1,217	1,275	2,492	390

1/ Data, except production, are approximations. Imports and exports include flour and products in wheat equivalent. 2/ Total supply includes imports. 3/ Projected.

Appendix table 10--U.S. wheat exports: Grain, flour, and products, by month, 1973/74-1991/92 1/

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
1,000 bushels													
Wheat (grain only)													
1973/74	125,910	110,095	139,912	132,527	122,270	120,508	89,469	83,185	72,848	65,678	55,802	55,119	1,173,323
1974/75	57,188	82,885	91,984	86,187	91,332	98,332	82,568	108,443	71,904	65,191	77,129	65,345	978,838
1975/76	77,583	99,988	111,446	125,943	123,763	118,614	92,462	92,069	72,517	77,353	77,111	67,787	136,635
1976/77	66,814	85,619	113,202	110,376	100,532	54,296	57,024	49,447	57,773	52,650	70,233	66,501	884,467
1977/78	77,073	83,657	93,432	110,634	69,107	57,565	87,368	64,819	94,669	105,468	103,286	120,060	1,067,138
1978/79	108,931	106,108	131,921	119,611	115,518	92,392	90,027	70,400	67,106	75,548	76,961	78,306	1,132,829
1979/80	104,607	133,283	117,787	129,617	149,040	108,882	114,879	82,683	89,526	94,735	98,327	88,579	1,311,945
1980/81	96,193	123,598	141,415	137,325	116,948	112,199	132,048	129,981	124,397	128,770	127,652	78,030	1,448,558
1981/82	124,521	138,168	145,428	194,148	156,993	127,495	137,757	124,163	138,719	159,078	148,181	116,496	1,711,147
1982/83	156,914	117,914	124,336	130,992	98,520	94,638	88,457	143,141	146,594	131,134	112,451	96,235	1,441,326
1983/84	113,506	116,701	87,823	119,263	114,810	102,880	128,887	118,357	111,096	118,713	97,132	112,813	1,341,980
1984/85	105,344	133,276	146,187	242,731	137,298	97,283	131,941	106,430	85,493	57,969	67,811	56,588	1,368,352
1985/86	84,264	63,877	86,863	72,210	85,649	82,384	61,853	70,079	70,869	66,236	56,437	46,216	846,936
1986/87	79,497	104,677	114,853	98,234	84,769	59,182	53,837	65,047	67,764	65,529	65,426	64,603	923,419
1987/88	119,769	157,706	112,758	119,945	101,680	71,166	113,609	140,228	143,959	149,146	152,830	147,667	1,530,462
1988/89	121,842	111,498	107,562	127,564	93,153	93,309	100,149	115,846	127,165	141,828	115,899	91,579	1,347,393
1989/90	90,808	137,971	131,989	150,700	89,343	68,664	81,816	78,344	87,655	104,914	84,611	71,649	1,178,465
1990/91	88,274	80,840	92,682	105,985	83,883	77,265	56,444	66,467	91,313	112,239	88,526	81,760	1,025,677
1991/92	56,228	79,385	97,417	95,120	124,155	136,385	112,771						
Flour (grain equivalent) 2/													
1973/74	2,875	3,613	3,861	4,737	1,498	1,504	2,650	2,925	2,736	2,624	3,067	3,475	35,565
1974/75	3,464	1,979	2,689	1,836	1,232	2,973	3,017	2,817	2,090	1,807	1,589	3,842	30,335
1975/76	2,664	2,627	2,740	2,045	2,113	2,019	1,380	1,149	1,206	1,525	3,212	4,306	26,986
1976/77	5,605	3,052	5,060	6,028	2,861	1,357	988	3,204	5,871	6,522	8,433	4,893	53,874
1977/78	3,803	3,586	3,411	2,893	2,011	2,204	3,446	1,987	3,820	4,464	6,412	5,844	43,881
1978/79	6,426	4,370	5,124	5,109	4,235	1,399	1,617	1,380	3,050	3,355	2,231	6,589	44,885
1979/80	4,280	4,172	6,370	5,336	3,157	2,587	5,351	2,505	3,649	6,970	2,389	2,529	49,295
1980/81	4,230	2,082	5,057	3,774	2,785	2,165	1,739	2,658	5,217	6,353	7,347	4,803	48,209
1981/82	5,794	2,779	3,438	2,496	668	411	902	1,767	8,068	5,775	6,955	5,983	45,036
1982/83	4,577	1,364	3,488	2,508	3,904	2,483	999	3,998	8,865	6,532	10,530	7,521	56,769
1983/84	9,611	8,198	7,849	8,801	8,473	3,504	1,245	2,330	2,344	7,066	7,306	8,148	74,875
1984/85	6,614	4,105	1,166	1,596	3,242	633	941	392	6,297	5,148	6,335	4,020	40,489
1985/86	3,640	2,638	1,638	1,038	1,289	2,902	6,680	3,174	5,521	5,157	6,411	2,381	42,469
1986/87	5,104	4,795	6,675	4,731	5,999	2,332	6,664	6,681	3,676	6,173	6,722	6,365	65,918
1987/88	5,450	6,816	4,749	3,999	3,418	6,746	4,316	6,934	2,556	10,776	2,463	2,520	60,743
1988/89	7,036	6,400	6,002	2,402	7,908	3,368	6,086	4,178	6,515	6,841	6,540	5,214	68,490
1989/90	907	1,897	5,775	8,915	3,579	6,817	3,606	4,943	3,124	4,466	6,132	3,289	53,450
1990/91	1,139	2,244	2,785	2,865	3,390	3,508	4,480	2,698	3,809	6,301	3,719	3,525	40,464
1991/92	9,609	5,536	4,215	3,986	1,231	2,222	3,299						

See footnotes at end of table.

Continued--

Appendix table 10--U.S. wheat exports: Grain, flour, and products, by month, 1973/74-1991/92 1/--Continued

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
1,000 bushels													
Wheat products (grain equivalent) 3/													
1973/74	812	372	489	610	426	771	1,379	763	470	487	871	620	8,070
1974/75	354	522	551	751	373	820	1,036	972	1,141	902	904	1,002	9,328
1975/76	1,540	1,275	212	340	955	856	1,395	1,223	89	140	481	754	9,260
1976/77	450	869	1,293	444	1,072	329	1,798	1,426	1,398	540	728	844	11,191
1977/78	788	926	269	1,211	925	952	1,821	1,097	1,164	1,059	942	1,694	12,848
1978/79	1,232	816	1,842	1,829	605	1,480	1,575	1,414	1,457	774	2,305	1,086	16,415
1979/80	772	1,797	1,492	1,483	1,190	1,484	1,334	1,168	378	1,083	836	918	13,935
1980/81	912	1,222	711	1,849	1,284	1,005	1,230	890	1,010	1,114	4,433	1,406	17,067
1981/82	1,827	1,150	1,009	1,037	1,171	1,406	572	1,211	1,875	351	2,246	692	14,547
1982/83	971	465	1,073	984	529	2,604	472	796	492	586	630	935	10,537
1983/84	632	1,075	1,300	578	502	904	1,346	600	939	780	363	503	9,523
1984/85	717	670	587	1,076	429	497	824	1,831	935	916	1,956	2,164	12,600
1985/86	1,984	2,472	1,256	2,097	1,683	1,476	1,543	1,449	1,172	1,103	1,590	1,903	19,727
1986/87	1,052	1,563	685	1,149	896	371	723	670	611	447	542	463	9,173
1987/88	447	751	549	234	364	901	743	423	277	551	1,133	251	6,624
1988/89	421	424	449	490	673	154	577	20	20	59	30	25	3,328
1989/90	31	33	457	74	463	72	78	44	44	50	45	32	1,422
1990/91	50	41	65	464	533	104	61	107	103	95	76	97	1,797
1991/92	86	105	80	84	100	113	121						
Total wheat, flour, and products													
1973/74	129,597	114,080	144,262	137,874	124,194	122,783	93,498	86,873	76,054	68,789	59,740	59,214	1,216,958
1974/75	61,006	85,386	95,224	88,774	94,287	102,125	86,621	112,232	75,135	67,900	79,622	70,189	1,018,501
1975/76	81,787	103,890	114,398	128,328	126,830	121,489	95,237	94,441	73,812	79,018	80,804	72,847	1,172,881
1976/77	72,869	89,540	119,555	116,848	104,465	55,982	59,810	54,077	65,042	59,712	79,394	72,238	949,532
1977/78	81,664	88,169	97,112	114,738	72,043	60,721	92,635	67,903	99,653	110,991	110,640	127,598	1,123,867
1978/79	116,588	111,294	138,888	126,550	120,358	95,271	93,219	73,194	71,612	79,677	81,497	85,981	1,194,129
1979/80	109,659	139,252	125,649	136,436	153,387	112,953	121,564	86,356	93,553	102,788	101,552	92,026	1,375,175
1980/81	101,335	126,902	147,183	142,949	121,017	115,369	135,017	133,529	130,624	136,238	139,432	84,239	1,513,834
1981/82	132,142	142,097	149,875	197,681	158,832	129,312	139,231	127,141	148,662	165,204	157,382	123,171	1,770,730
1982/83	162,462	119,743	128,897	134,485	102,952	99,726	89,928	147,935	155,950	138,252	123,611	104,691	1,508,632
1983/84	123,750	125,974	96,972	128,642	123,785	107,288	131,479	121,287	114,378	126,559	104,801	121,464	1,426,378
1984/85	112,675	138,051	147,940	245,403	140,968	98,414	133,705	108,653	92,725	64,033	76,102	62,771	1,421,442
1985/86	89,888	68,986	89,757	75,344	88,622	86,763	70,075	74,703	77,562	72,495	64,438	50,499	909,131
1986/87	85,654	111,036	122,214	104,114	91,665	61,884	61,224	72,398	72,052	72,148	72,690	71,431	998,511
1987/88	125,666	165,273	118,057	124,178	105,462	78,813	118,668	147,585	146,793	160,472	156,426	150,437	1,597,829
1988/89	129,299	118,322	114,013	130,455	101,735	96,831	106,811	120,044	133,700	148,727	122,469	96,818	1,419,224
1989/90	91,747	139,901	138,221	159,688	93,385	75,553	85,499	83,331	90,822	109,430	90,788	74,970	1,233,335
1990/91	89,462	83,125	95,533	109,315	87,806	80,877	60,985	69,272	95,225	118,635	92,320	85,382	1,067,938
1991/92	65,922	85,027	101,711	99,190	125,487	138,721	116,191						

1/ Totals may not add because of independent rounding. 2/ Includes meal and groats, and durum. 3/ Includes macaroni, rolled wheat, and bulgar.

 Sources: U.S. Bureau of the Census.
 USDA/ERS calculations.

Appendix table 11--U.S. wheat imports: Grain, flour and products, by month, 1983/84-1991/92 1/

Crop year	June	July	August	September	October	November	December	January	February	March	April	May	Total
1,000 bushels													
1983/84:													
Grain	0	6	17	27	8	1	0	0	5	4	7	2	78
Flour and Products	326	67	283	266	274	355	342	403	336	324	408	379	3,762
Total	326	73	300	293	282	356	342	403	341	328	415	382	3,840
1984/85:													
Grain	1,247	721	734	506	449	33	1	1	10	12	15	1,100	4,829
Flour and Products	332	413	357	394	391	419	412	346	349	467	358	374	4,611
Total	1,578	1,134	1,091	900	840	451	412	346	360	479	374	1,474	9,440
1985/86:													
Grain	1,564	1,758	513	2,187	716	1,001	1,120	226	66	194	411	1,655	11,412
Flour and Products	482	325	426	389	450	323	414	464	403	419	435	347	4,875
Total	2,046	2,083	939	2,576	1,165	1,325	1,533	690	469	612	846	2,002	16,287
1986/87:													
Grain	968	408	1,791	222	1,088	983	1,776	1,327	1,514	1,353	2,403	1,987	15,821
Flour and Products	333	428	373	345	430	570	525	445	436	548	554	443	5,430
Total	1,301	836	2,165	567	1,519	1,553	2,300	1,772	1,950	1,900	2,957	2,430	21,250
1987/88:													
Grain	432	218	559	1,087	940	948	943	460	803	1,131	1,060	1,409	9,989
Flour and Products	470	529	501	362	581	607	522	539	455	590	460	480	6,097
Total	902	747	1,060	1,449	1,521	1,555	1,465	999	1,259	1,721	1,520	1,889	16,086
1988/89:													
Grain	1,956	2,372	2,698	1,824	2,094	880	520	819	813	679	958	257	15,870
Flour and Products	508	463	586	438	492	539	591	492	428	890	702	669	6,798
Total	2,465	2,835	3,284	2,261	2,586	1,419	1,111	1,311	1,240	1,569	1,660	927	22,668
1989/90:													
Grain	655	641	1,830	785	931	2,785	1,194	985	471	412	864	1,994	13,548
Flour and Products	1,024	945	772	863	1,112	672	678	591	732	595	689	1,225	9,899
Total	1,679	1,587	2,602	1,648	2,043	3,457	1,873	1,576	1,203	1,008	1,553	3,219	23,447
1990/91:													
Grain	1,105	842	3,013	3,868	3,776	3,265	2,687	829	1,322	1,327	2,404	1,103	25,540
Flour and Products	741	1,393	905	935	784	762	1,278	605	1,032	749	890	763	10,835
Total	1,846	2,234	3,918	4,803	4,560	4,027	3,965	1,434	2,354	2,076	3,294	1,866	36,375
1991/92:													
Grain	1,299	1,418	2,564	354	2,746	1,810	3,528						
Flour and Products	838	817	860	765	835	719	811						
Total	2,137	2,234	3,424	1,119	3,581	2,529	4,339						

1/ Totals may not add because of rounding.

Appendix table 12--World wheat production, consumption, trade, and ending stocks, 1960/61-1991/92

Crop year 1/	Area harvested	Yield	Production	Consumption	Trade 1/	Ending 2/ stocks	Stocks-to-consumption
	Million hectares	Tons per hectare	-----Million metric tons-----				Percent
1960/61	202.2	1.18	238.4	234.8	41.9	81.8	34.8
1961/62	203.4	1.10	224.8	236.4	46.8	70.2	29.7
1962/63	206.9	1.22	251.8	245.8	44.3	75.8	30.8
1963/64	206.3	1.13	233.9	239.4	56.0	70.3	29.4
1964/65	215.9	1.25	270.4	262.3	52.0	78.5	29.9
1965/66	215.5	1.22	263.3	281.1	61.0	60.7	21.6
1966/67	213.8	1.44	307.9	281.0	56.0	87.6	31.2
1967/68	219.2	1.36	297.4	287.3	51.0	97.7	34.0
1968/69	223.9	1.48	330.6	307.0	45.0	121.3	39.5
1969/70	217.8	1.42	310.0	327.8	50.0	103.5	31.6
1970/71	207.0	1.52	313.7	336.7	55.0	80.5	23.9
1971/72	212.8	1.65	350.9	342.2	52.0	89.2	26.1
1972/73	210.9	1.63	343.9	358.2	67.0	74.9	20.9
1973/74	217.1	1.72	373.8	366.0	63.0	82.7	22.6
1974/75	220.0	1.64	360.9	362.3	64.3	81.4	22.5
1975/76	225.3	1.58	357.1	351.7	66.7	86.7	24.7
1976/77	233.1	1.81	421.4	380.8	63.3	127.3	33.4
1977/78	227.2	1.69	384.1	402.4	72.8	109.2	27.2
1978/79	229.0	1.95	447.1	421.5	72.0	134.9	32.0
1979/80	228.5	1.86	425.0	438.7	86.0	121.2	27.6
1980/81	237.2	1.87	443.2	450.9	94.1	113.9	25.2
1981/82	239.1	1.88	450.6	450.8	101.3	113.7	25.2
1982/83	237.8	2.01	478.4	461.2	98.7	130.9	28.4
1983/84	229.4	2.14	489.9	474.6	102.0	146.2	30.8
1984/85	231.5	2.22	513.7	494.6	107.0	165.3	33.4
1985/86	230.2	2.18	501.0	496.6	84.8	169.7	34.2
1986/87	228.2	2.33	531.1	523.1	91.3	177.6	34.0
1987/88	219.9	2.28	502.4	531.2	106.1	148.8	28.0
1988/89	217.9	2.30	501.3	531.8	97.2	118.3	22.2
1989/90	226.4	2.38	537.9	534.9	96.1	121.2	22.7
1990/91 3/	232.1	2.56	593.2	574.0	93.1	140.4	24.5
1991/92 4/	223.5	2.44	545.9	560.9	107.7	125.3	22.3

1/ July-June year, excludes intra-EC trade. 2/ Ending stocks data are based on an aggregate of differing local marketing years. 3/ Preliminary. 4/ Projected.

Appendix table 13--Wheat production, trade, and ending stocks, world and United States, 1965-91

Year	Production			Exports			Ending stocks		
	World	United States	U.S. share	World 1/	United States	U.S. share	World	United States	U.S. share
	Million bushels		Percent	Million bushels		Percent	Million bushels		Percent
1965	9,675	1,283	13.26	2,241	852	38.01	2,232	660	29.57
1966	11,314	1,315	11.62	2,058	771	37.47	3,220	513	15.93
1967	10,927	1,507	13.79	1,874	765	40.82	3,589	630	17.56
1968	12,149	1,557	12.82	1,653	544	32.90	4,457	904	20.28
1969	11,390	1,443	12.67	1,837	603	32.82	3,805	983	25.84
1970	11,525	1,352	11.73	2,021	741	36.67	2,959	823	27.81
1971	12,895	1,619	12.55	1,911	599	31.37	3,279	985	30.04
1972	12,637	1,546	12.24	2,462	1,116	45.35	2,753	597	21.68
1973	13,735	1,711	12.46	2,315	1,217	52.57	3,040	340	11.18
1974	13,261	1,782	13.44	2,363	1,018	43.11	2,989	435	14.55
1975	13,121	2,127	16.21	2,451	1,173	47.86	3,187	666	20.90
1976	15,483	2,149	13.88	2,326	950	40.85	4,678	1,113	23.79
1977	14,115	2,046	14.50	2,675	1,124	42.02	4,013	1,178	29.35
1978	16,428	1,776	10.81	2,646	1,194	45.14	4,955	924	18.65
1979	15,618	2,134	13.66	3,160	1,375	43.51	4,452	902	20.26
1980	16,286	2,381	14.62	3,458	1,514	43.79	4,183	989	23.64
1981	16,557	2,785	16.82	3,722	1,771	47.58	4,178	1,159	27.74
1982	17,579	2,765	15.73	3,627	1,509	41.61	4,811	1,515	31.49
1983	18,001	2,420	13.44	3,777	1,429	37.83	5,373	1,399	26.03
1984	18,877	2,595	13.75	3,932	1,424	36.22	6,075	1,425	23.46
1985	18,408	2,424	13.17	3,116	909	29.18	6,235	1,905	30.55
1986	19,515	2,091	10.71	3,355	999	29.76	6,527	1,821	27.90
1987	18,459	2,108	11.42	3,899	1,598	40.99	5,468	1,261	23.06
1988	18,418	1,812	9.84	3,571	1,419	39.73	4,345	702	16.15
1989	19,764	2,037	10.30	3,531	1,233	34.92	4,454	536	12.04
1990	21,796	2,736	12.55	3,421	1,068	31.22	5,158	866	16.79
1991 2/	20,058	1,981	9.88	3,957	1,275	32.22	4,605	390	8.46

1/ Excludes intra-EC trade. 2/ Preliminary.

Appendix table 14--Wheat: Production and exports, major foreign exporters, and total foreign, 1966-91

Year	Australia		Canada		Argentina		EC-12		Total foreign 1/	
	Prod.	Exports	Prod.	Exports	Prod.	Exports	Prod.	Exports 2/	Prod.	Exports
	Million bushels									
1966	467	312	827	515	230	82	1,441	215	9,999	1,375
1967	277	208	593	336	269	81	1,698	271	9,420	1,203
1968	544	234	650	306	211	92	1,718	341	10,592	1,303
1969	387	296	671	346	258	85	1,635	383	9,947	1,448
1970	290	336	332	435	181	36	1,595	220	10,173	1,334
1971	316	286	530	504	209	60	1,867	337	11,276	1,461
1972	242	157	533	577	254	117	1,879	446	11,090	1,515
1973	440	258	594	419	241	58	1,857	436	12,024	1,465
1974	417	315	489	395	219	66	2,053	454	11,479	1,496
1975	440	318	628	450	315	116	1,757	536	10,994	1,545
1976	434	349	867	494	404	217	1,811	404	13,334	1,652
1977	344	298	730	588	209	65	1,742	467	12,069	1,651
1978	665	430	777	480	298	150	2,148	566	14,652	1,893
1979	595	485	631	584	298	175	2,068	658	13,484	2,053
1980	399	352	709	598	286	141	2,375	798	13,905	2,047
1981	601	404	911	678	305	134	2,243	823	13,772	2,190
1982	326	267	982	785	551	363	2,476	807	14,814	2,423
1983	809	490	972	800	468	288	2,474	824	15,581	2,612
1984	686	539	779	645	485	346	3,198	1,046	16,282	2,833
1985	594	589	891	650	312	158	2,776	1,023	15,984	2,616
1986	592	575	1,153	764	328	163	2,801	1,035	17,424	2,768
1987	454	362	953	864	323	136	2,774	1,047	16,351	2,709
1988	517	418	588	456	309	148	2,880	1,200	16,606	2,639
1989	522	394	903	620	373	223	3,014	1,163	17,727	2,696
1990	554	432	1,202	805	386	200	3,110	1,242	19,060	2,953
1991 3/	367	250	1,206	900	312	151	3,319	1,272	18,077	3,078

1/ Aggregate of differing local marketing years including Canada (Aug./Jul.), Australia (Oct./Sept.), Argentina (Dec./Nov.), EC-12 (July/June).
 2/ Includes intra-EC trade. 3/ Projected.

Appendix table 15--Wheat and wheat flour: World trade, production, stocks, and use, 1985/86-1991/92 1/

Country or region	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92 7/
----- Million metric tons -----							
Exports:							
Canada	16.8	20.8	23.6	13.5	17.0	20.6	24.0
Australia	16.0	14.8	12.2	10.8	10.8	11.8	7.1
Argentina	6.1	4.3	3.8	3.5	5.6	4.7	5.5
EC-12	15.7	16.5	14.8	21.0	21.0	20.0	23.0
USSR	0.5	0.5	0.5	0.5	0.5	0.5	0.5
All others	4.7	6.0	7.8	10.3	7.8	7.2	12.9
Total non-U.S.	59.8	62.9	62.7	59.6	62.6	64.7	73.0
U.S. 2/	25.0	28.4	43.4	37.6	33.5	28.3	34.7
World total	84.8	91.3	106.1	97.2	96.1	93.1	107.7
Imports:							
EC-12	3.4	2.7	2.2	2.5	2.0	1.9	1.8
USSR	15.7	16.0	21.5	15.5	14.6	14.8	23.0
Japan	5.5	5.8	5.7	5.4	5.6	5.6	5.8
E. Europe	2.9	3.4	2.9	2.3	1.7	2.0	1.5
China	6.6	8.5	15.0	15.5	13.0	9.5	15.0
All others	50.7	54.9	58.9	56.0	59.2	59.2	60.7
World total	84.8	91.3	106.1	97.2	96.1	93.1	107.7
Production: 3/							
Canada	24.3	31.4	26.0	16.0	24.6	32.7	32.8
Australia	16.2	16.1	12.4	14.1	14.2	15.1	10.0
Argentina	8.5	8.9	8.8	8.4	10.2	10.5	8.5
EC-12	75.6	76.2	75.5	78.4	82.0	84.6	90.3
USSR 3/	78.1	92.3	83.3	84.4	92.3	108.0	78.0
E. Europe	33.2	35.0	35.8	41.1	40.7	41.1	39.2
China	85.8	90.0	85.8	85.4	90.8	98.2	96.0
India	44.1	47.1	44.3	46.2	54.1	49.9	54.5
All other foreign	69.3	77.1	73.1	78.0	73.6	78.6	82.6
U.S.	66.0	56.9	57.4	49.3	55.4	74.5	53.9
World total	501.0	531.1	502.4	501.3	537.9	593.2	545.9
Utilization: 4/							
U.S.	28.6	32.6	29.6	26.5	27.0	37.4	33.1
USSR 5/	91.6	102.8	101.5	100.4	103.4	119.3	106.0
China	100.4	101.5	102.8	104.4	104.5	106.0	110.0
All other foreign	276.0	286.0	297.3	300.5	300.0	311.3	311.8
World total	496.6	523.1	531.2	531.8	534.9	574.0	560.9
Stocks, ending: 6/	169.7	176.6	148.8	118.3	121.2	140.4	125.3

1/ July-June years. 2/ Includes transshipments through Canadian ports; excludes products other than flour. 3/ Production data include all harvests occurring within the July-June year shown, except that small grain crops from the early harvesting Northern Hemisphere areas are moved forward; i.e., the May 1984 harvests in areas such as India, North Africa, and southern United States are actually included in 1984/85 accounting period, which begins July 1, 1984. 4/ Utilization data are based on an aggregate of differing marketing years. For countries for which stock data are not available, utilization estimates represent apparent utilization, i.e., they are inclusive of annual stock level adjustments. 5/ "Bunker weight" basis; not discounted for excess moisture and foreign material. 6/ Stocks data are based on an aggregate of differing marketing years and should not be construed as representing world stock levels at a fixed point in time. Stocks data are not available for all countries and exclude part of Eastern Europe; the world stock levels have been adjusted for estimated year-to-year changes in USSR grain stocks, but do not purport to include the entire absolute level of USSR stocks. 7/ Forecasted as of February 1992.

Source: World Grain Situation and Outlook, Foreign Agricultural Service, USDA.

Appendix table 16--Wheat farm prices for leading classes in U.S. regions, 1978/79-1991/92

Crop year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. 1/	Feb.	Mar.	Apr.	May	Average	Loan rate
----- \$/bushel -----														
Central and So. Plains (hard winter) 2/														
1978/79	2.72	2.71	2.74	2.82	2.96	2.98	2.97	2.93	2.96	2.97	3.00	3.12	2.91	2.28
1979/80	3.63	3.81	3.72	3.82	3.86	3.93	3.89	3.81	3.73	3.51	3.36	3.48	3.71	2.43
1980/81	3.49	3.63	3.75	3.86	4.10	4.19	4.01	4.08	3.99	3.83	3.88	3.75	3.88	2.94
1981/82	3.77	3.72	3.68	3.69	3.76	3.87	3.82	3.78	3.74	3.71	3.72	3.66	3.74	3.13
1982/83	3.49	3.37	3.34	3.38	3.36	3.43	3.49	3.51	3.51	3.60	3.71	3.68	3.50	3.47
1983/84	3.49	3.34	3.54	3.59	3.56	3.49	3.45	3.48	3.41	3.48	3.62	3.63	3.51	3.56
1984/85	3.46	3.30	3.42	3.45	3.43	3.41	3.36	3.34	3.34	3.34	3.39	3.25	3.37	3.23
1985/86	3.06	2.90	2.85	3.00	3.07	3.21	3.24	3.16	3.10	3.21	3.33	2.92	3.09	3.23
1986/87	2.38	2.19	2.23	2.26	2.25	2.39	2.43	2.45	2.50	2.49	2.52	2.60	2.39	2.37
1987/88	2.39	2.26	2.29	2.42	2.51	2.58	2.65	2.68	2.74	2.71	2.72	2.91	2.57	2.26
1988/89	3.30	3.36	3.42	3.62	3.72	3.74	3.90	3.90	3.93	4.04	4.03	3.99	3.75	2.21
1989/90	3.84	3.80	3.74	3.74	3.77	3.81	3.87	3.82	3.63	3.50	3.55	3.31	3.70	2.04
1990/91	3.01	2.75	2.53	2.45	2.40	2.34	2.37	2.36	2.38	2.52	2.57	2.60	2.52	2.00
1991/92	2.58	2.54	2.69	2.89	3.15	3.29	3.48	3.72						
Corn Belt (soft red winter) 3/														
1978/79	2.88	2.90	3.02	3.08	3.23	3.34	3.37	3.37	3.50	3.38	3.44	3.58	3.26	2.34
1979/80	3.85	4.01	3.86	3.93	4.00	3.87	3.99	4.03	4.11	3.82	3.59	3.62	3.89	2.48
1980/81	3.58	3.82	4.02	4.19	4.41	4.59	4.50	4.50	4.28	4.03	4.00	3.59	4.13	3.00
1981/82	3.35	3.46	3.36	3.45	3.56	3.68	3.70	3.71	3.40	3.36	3.42	3.23	3.47	3.20
1982/83	3.18	3.08	2.98	2.89	2.75	3.02	3.13	3.18	3.20	3.30	3.29	3.30	3.11	3.56
1983/84	3.25	3.25	3.54	3.49	3.36	3.33	3.43	3.46	3.26	3.38	3.54	3.44	3.40	3.66
1984/85	3.26	3.22	3.29	3.29	3.29	3.40	3.42	3.44	3.39	3.42	3.44	3.19	3.34	3.28
1985/86	3.01	2.94	2.74	2.66	2.77	3.10	3.22	3.18	3.24	3.37	3.42	2.87	3.04	3.28
1986/87	2.40	2.30	2.28	2.27	2.57	2.65	2.73	2.71	2.77	2.85	2.75	2.65	2.58	2.36
1987/88	2.42	2.37	2.41	2.51	2.66	2.74	2.90	3.02	3.07	2.85	2.96	3.08	2.75	2.35
1988/89	3.33	3.39	3.53	3.67	3.84	3.93	4.06	4.13	4.08	4.14	4.00	3.91	3.83	2.33
1989/90	3.80	3.75	3.76	3.82	3.87	3.99	4.01	3.99	3.85	3.76	3.62	3.52	3.81	2.14
1990/91	3.04	2.85	2.66	2.45	2.39	2.34	2.42	2.38	2.36	2.50	2.63	2.68	2.56	2.09
1991/92	2.52	2.38	2.67	2.86	3.12	3.35	3.52	3.79						
Northern Plains (spring) 4/														
1978/79	2.79	2.69	2.71	2.78	2.87	2.93	2.86	2.75	2.83	2.84	2.89	3.14	2.84	2.36
1979/80	3.49	3.69	3.62	3.67	3.83	3.76	3.61	3.54	3.60	3.57	3.66	3.80	3.65	2.51
1980/81	3.82	4.04	3.95	3.96	4.15	4.24	4.18	4.23	4.19	4.15	4.25	4.24	4.12	3.02
1981/82	4.12	3.93	3.70	3.62	3.66	3.74	3.63	3.69	3.67	3.61	3.73	3.69	3.73	3.21
1982/83	3.62	3.59	3.46	3.45	3.44	3.51	3.47	3.45	3.41	3.59	3.79	3.84	3.56	3.57
1983/84	3.81	3.80	3.78	3.69	3.68	3.66	3.59	3.62	3.59	3.68	3.78	3.87	3.71	3.68
1984/85	3.86	3.69	3.52	3.49	3.47	3.46	3.41	3.45	3.46	3.49	3.57	3.56	3.54	3.34
1985/86	3.50	3.30	3.05	3.18	3.36	3.49	3.58	3.51	3.47	3.51	3.57	3.48	3.42	3.34
1986/87	2.81	2.41	2.38	2.34	2.30	2.51	2.59	2.69	2.66	2.63	2.65	2.69	2.55	2.40
1987/88	2.50	2.36	2.37	2.55	2.62	2.66	2.70	2.77	2.78	2.74	2.78	2.95	2.65	2.28
1988/89	3.30	3.62	3.66	3.80	3.83	3.74	3.81	3.92	3.90	3.99	3.96	3.99	3.79	2.21
1989/90	3.89	3.81	3.68	3.59	3.59	3.58	3.60	3.58	3.50	3.47	3.47	3.49	3.60	2.06
1990/91	3.33	2.96	2.57	2.44	2.43	2.39	2.43	2.44	2.43	2.52	2.60	2.64	2.60	2.04
1991/92	2.57	2.47	2.51	2.69	2.97	3.18	3.44	3.72						
Pacific Northwest (white) 5/														
1978/79	3.23	3.29	3.35	3.36	3.30	3.30	3.34	3.30	3.21	3.22	3.30	3.42	3.30	2.41
1979/80	3.98	3.93	4.12	4.03	3.91	3.89	3.74	3.68	3.80	3.71	3.66	3.56	3.83	2.57
1980/81	3.53	3.71	3.67	3.80	4.03	4.12	4.08	4.05	4.05	4.11	4.02	4.08	3.94	3.08
1981/82	3.97	3.69	3.78	3.80	3.94	3.96	3.98	3.91	3.75	3.68	3.72	3.71	3.82	3.29
1982/83	3.71	3.62	3.74	3.76	3.86	3.91	3.98	4.07	4.15	4.18	4.13	4.04	3.93	3.65
1983/84	3.78	3.61	3.68	3.70	3.62	3.59	3.51	3.49	3.31	3.48	3.57	3.64	3.58	3.75
1984/85	3.71	3.26	3.32	3.31	3.38	3.38	3.35	3.43	3.45	3.53	3.57	3.54	3.44	3.43
1985/86	3.35	2.97	3.05	3.16	3.29	3.39	3.44	3.40	3.41	3.52	3.60	3.49	3.34	3.43
1986/87	2.97	2.44	2.36	2.35	2.40	2.48	2.56	2.61	2.69	2.69	2.74	2.73	2.59	2.50
1987/88	2.60	2.54	2.48	2.57	2.70	2.62	2.73	2.88	2.89	2.79	2.95	3.09	2.74	2.39
1988/89	3.44	3.72	3.80	3.97	4.13	4.19	4.31	4.48	4.48	4.36	4.40	4.31	4.13	2.32
1989/90	4.13	4.12	4.14	4.04	4.06	3.98	4.15	4.06	3.66	3.47	3.39	3.37	3.88	2.17
1990/91	3.26	3.04	2.82	2.69	2.48	2.47	2.51	2.56	2.61	2.78	2.86	2.94	2.75	2.14
1991/92	2.98	2.98	3.06	3.23	3.56	3.89	4.01	4.03						
U.S. average 6/														
1978/79	2.81	2.81	2.88	2.92	2.99	3.04	3.01	2.99	2.99	2.97	3.01	3.20	2.98	2.35
1979/80	3.72	3.89	3.74	3.87	3.98	3.94	3.81	3.74	3.78	3.64	3.58	3.69	3.80	2.50
1980/81	3.69	3.81	3.94	3.99	4.19	4.32	4.22	4.21	4.17	4.09	4.07	3.95	3.99	3.00
1981/82	3.70	3.62	3.62	3.65	3.77	3.85	3.80	3.78	3.70	3.67	3.68	3.64	3.69	3.20
1982/83	3.39	3.26	3.34	3.38	3.43	3.48	3.51	3.57	3.57	3.66	3.75	3.73	3.45	3.55
1983/84	3.50	3.34	3.61	3.65	3.60	3.54	3.48	3.50	3.40	3.49	3.63	3.66	3.51	3.65
1984/85	3.46	3.29	3.43	3.43	3.43	3.45	3.38	3.38	3.38	3.38	3.43	3.30	3.39	3.30
1985/86	3.09	2.93	2.89	3.01	3.10	3.22	3.25	3.19	3.16	3.28	3.37	3.01	3.08	3.30
1986/87	2.47	2.25	2.26	2.28	2.30	2.43	2.49	2.53	2.58	2.57	2.63	2.66	2.42	2.40
1987/88	2.45	2.31	2.35	2.54	2.62	2.69	2.70	2.75	2.79	2.74	2.79	2.97	2.57	2.28
1988/89	3.37	3.50	3.61	3.74	3.84	3.88	3.94	4.02	4.03	4.07	4.03	4.01	3.72	2.21
1989/90	3.85	3.78	3.74	3.72	3.75	3.72	3.79	3.71	3.56	3.48	3.49	3.40	3.72	2.06
1990/91	3.08	2.79	2.58	2.46	2.43	2.39	2.40	2.42	2.42	2.53	2.60	2.65	2.61	1.95
1991/92	2.55	2.50	2.63	2.80	3.07	3.24	3.44	3.74					7/ 3.00-3.10	2.04

1/ January 1991 data is preliminary. 2/ Kansas, Nebraska, Texas, Oklahoma, and Arkansas. 3/ Ohio, Indiana, Illinois, and Missouri. 4/ Wheat prices by class represent averages for the entire United States. 5/ Washington, Oregon, and Idaho. 6/ Season-average prices do not include an allowance for unredeemed loans and purchases beginning 1979/80. 7/ Projected.

Source: National Agricultural Statistics Service & Economic Research Service, USDA.

Appendix table 17--Wheat cash prices for leading classes at major markets, 1951/52-1991/92

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
\$ /bushel													
KANSAS CITY, NO. 1 HARD RED WINTER (ORDINARY PROTEIN)													
1951/52	2.35	2.32	2.33	2.37	2.44	2.53	2.54	2.52	2.50	2.50	2.49	2.45	2.45
1952/53	2.27	2.23	2.31	2.38	2.39	2.43	2.42	2.39	2.36	2.37	2.36	2.31	2.35
1953/54	2.09	2.09	2.16	2.18	2.26	2.31	2.33	2.30	2.37	2.40	2.42	2.36	2.27
1954/55	2.14	2.21	2.28	2.31	2.34	2.38	2.41	2.40	2.41	2.42	2.42	2.49	2.35
1955/56	2.26	2.13	2.08	2.13	2.14	2.13	2.16	2.17	2.19	2.27	2.33	2.24	2.19
1956/57	2.12	2.07	2.17	2.26	2.28	2.34	2.33	2.34	2.33	2.33	2.31	2.21	2.26
1957/58	2.22	2.14	2.11	2.11	2.12	2.18	2.16	2.16	2.18	2.26	2.26	2.28	2.18
1958/59	1.95	1.81	1.83	1.92	1.94	1.95	1.95	1.95	1.99	2.04	2.05	2.01	1.95
1959/60	1.92	1.90	1.95	1.97	2.02	2.03	2.04	2.05	2.08	2.12	2.09	2.00	2.01
1960/61	1.94	1.89	1.94	1.98	1.98	2.01	2.02	2.05	2.05	2.01	1.99	1.94	1.98
1961/62	1.94	1.97	2.03	2.05	2.05	2.08	2.07	2.06	2.06	2.10	2.12	2.16	2.06
1962/63	2.19	2.20	2.17	2.17	2.19	2.22	2.24	2.25	2.29	2.32	2.37	2.24	2.24
1963/64	2.05	1.98	2.03	2.09	2.19	2.19	2.21	2.24	2.22	2.16	2.26	2.20	2.15
1964/65	1.69	1.57	1.60	1.64	1.66	1.67	1.64	1.62	1.61	1.56	1.53	1.49	1.61
1965/66	1.46	1.49	1.57	1.59	1.59	1.61	1.62	1.64	1.63	1.62	1.63	1.71	1.60
1966/67	1.88	1.95	1.95	1.92	1.79	1.85	1.86	1.77	1.73	1.82	1.76	1.76	1.84
1967/68	1.68	1.61	1.56	1.57	1.59	1.56	1.58	1.60	1.61	1.60	1.54	1.53	1.59
1968/69	1.44	1.37	1.35	1.34	1.40	1.42	1.40	1.41	1.40	1.40	1.39	1.39	1.39
1969/70	1.35	1.28	1.31	1.39	1.43	1.46	1.46	1.46	1.46	1.45	1.47	1.44	1.41
1970/71	1.40	1.38	1.47	1.59	1.58	1.59	1.59	1.58	1.58	1.55	1.56	1.61	1.54
1971/72	1.63	1.54	1.54	1.53	1.56	1.56	1.58	1.58	1.57	1.58	1.61	1.62	1.58
1972/73	1.52	1.58	1.82	2.10	2.15	2.25	2.62	2.67	2.48	2.42	2.51	2.63	2.23
1973/74	2.69	2.90	4.67	5.01	4.67	4.78	5.22	5.68	5.82	5.01	4.07	3.59	4.51
1974/75	4.05	4.36	4.33	4.35	4.94	4.88	4.66	4.15	3.93	3.69	3.66	3.34	4.20
1975/76	3.23	3.61	4.12	4.21	4.09	3.71	3.50	3.57	3.81	3.81	3.61	3.57	3.74
1976/77	3.75	3.63	3.21	3.01	2.77	2.62	2.64	2.70	2.73	2.63	2.52	2.36	2.88
1977/78	2.31	2.35	2.31	2.47	2.56	2.81	2.80	2.82	2.84	3.07	3.21	3.21	2.72
1978/79	3.12	3.14	3.14	3.24	3.42	3.48	3.39	3.42	3.50	3.52	3.53	3.64	3.38
1979/80	4.17	4.34	4.12	4.26	4.39	4.53	4.51	4.33	4.32	4.07	3.90	4.10	4.25
1980/81	4.07	4.21	4.31	4.45	4.70	4.89	4.54	4.60	4.47	4.35	4.48	4.36	4.45
1981/82	4.24	4.25	4.14	4.19	4.31	4.46	4.35	4.33	4.26	4.25	4.28	4.22	4.27
1982/83	4.06	3.74	3.70	3.75	3.61	3.86	3.98	4.00	4.08	4.18	4.21	4.05	3.94
1983/84	3.92	3.71	3.88	3.90	3.84	3.82	3.85	3.81	3.71	3.85	3.93	3.89	3.84
1984/85	3.80	3.67	3.80	3.89	3.86	3.85	3.76	3.76	3.74	3.67	3.62	3.42	3.74
1985/86	3.38	3.17	3.03	3.07	3.15	3.35	3.42	3.32	3.30	3.36	3.45	3.40	3.28
1986/87	2.80	2.50	2.48	2.53	2.60	2.68	2.68	2.70	2.80	2.90	2.90	3.02	2.72
1987/88	2.70	2.59	2.65	2.78	2.90	2.90	3.10	3.20	3.28	3.10	3.14	3.20	2.96
1988/89	3.79	3.77	3.78	4.03	4.13	4.18	4.25	4.40	4.37	4.32	4.46	4.55	4.17
1989/90	4.44	4.28	4.24	4.18	4.28	4.36	4.39	4.30	4.13	4.04	4.13	3.91	4.22
1990/91	3.60	3.11	2.89	2.82	2.81	2.78	2.78	2.71	2.77	2.94	2.98	3.04	2.94
1991/92	2.99	2.91	3.10	3.31	3.64	3.76	4.06						
KANSAS CITY, NO. 1 HARD RED WINTER (13 % PROTEIN)													
1951/52	2.37	2.36	2.37	2.41	2.47	2.54	2.52	2.53	2.50	2.51	2.50	2.47	2.46
1952/53	2.37	2.30	2.35	2.44	2.47	2.49	2.46	2.42	2.39	2.43	2.41	2.35	2.41
1953/54	2.14	2.20	2.26	2.32	2.40	2.43	2.44	2.44	2.46	2.49	2.51	2.49	2.38
1954/55	2.40	2.44	2.47	2.54	2.58	2.59	2.61	2.57	2.54	2.56	2.57	2.63	2.54
1955/56	2.49	2.37	2.28	2.31	2.32	2.31	2.32	2.30	2.29	2.35	2.40	2.32	2.34
1956/57	2.23	2.16	2.22	2.29	2.31	2.36	2.35	2.36	2.34	2.35	2.34	2.24	2.30
1957/58	2.26	2.26	2.25	2.23	2.24	2.29	2.29	2.30	2.30	2.35	2.34	2.35	2.29
1958/59	2.10	2.04	2.00	2.09	2.12	2.13	2.12	2.12	2.13	2.15	2.16	2.14	2.11
1959/60	2.07	2.05	2.09	2.12	2.14	2.13	2.14	2.13	2.14	2.17	2.15	2.09	2.12
1960/61	2.04	2.02	2.05	2.10	2.11	2.12	2.13	2.13	2.13	2.10	2.10	2.05	2.09
1961/62	2.08	2.18	2.23	2.23	2.22	2.24	2.25	2.23	2.24	2.26	2.28	2.32	2.23
1962/63	2.35	2.37	2.40	2.38	2.39	2.42	2.42	2.43	2.47	2.49	2.48	2.36	2.41
1963/64	2.17	2.09	2.12	2.21	2.29	2.27	2.28	2.29	2.27	2.22	2.30	2.24	2.23
1964/65	1.74	1.64	1.67	1.70	1.69	1.71	1.70	1.66	1.66	1.61	1.57	1.55	1.66
1965/66	1.56	1.67	1.74	1.76	1.78	1.77	1.76	1.72	1.71	1.72	1.74	1.82	1.73
1966/67	1.99	2.06	2.03	1.97	1.84	1.89	1.89	1.80	1.76	1.84	1.78	1.81	1.89
1967/68	1.73	1.65	1.60	1.61	1.63	1.59	1.60	1.62	1.62	1.62	1.57	1.56	1.62
1968/69	1.53	1.48	1.49	1.53	1.59	1.62	1.61	1.61	1.58	1.60	1.59	1.57	1.57
1969/70	1.57	1.60	1.61	1.66	1.70	1.71	1.72	1.71	1.64	1.61	1.65	1.60	1.65
1970/71	1.59	1.55	1.65	1.74	1.70	1.72	1.75	1.74	1.72	1.70	1.68	1.69	1.69
1971/72	1.73	1.59	1.59	1.58	1.62	1.63	1.65	1.64	1.64	1.67	1.69	1.69	1.64
1972/73	1.61	1.68	1.90	2.15	2.21	2.30	2.65	2.68	2.49	2.45	2.55	2.69	2.28
1973/74	2.80	3.06	4.74	5.04	4.70	4.78	5.23	5.68	5.86	5.13	4.24	3.76	4.59
1974/75	4.47	4.78	4.74	4.85	5.47	5.36	5.15	4.64	4.31	4.08	4.07	3.71	4.64
1975/76	3.81	4.10	4.45	4.55	4.46	4.13	3.97	4.00	4.26	4.23	4.04	3.88	4.16
1976/77	4.10	3.96	3.45	3.35	3.09	3.02	2.99	2.99	3.01	2.89	2.75	2.62	3.19
1977/78	2.51	2.43	2.38	2.53	2.61	2.86	2.87	2.92	2.92	3.09	3.36	3.25	2.81
1978/79	3.20	3.17	3.15	3.26	3.42	3.48	3.40	3.43	3.52	3.55	3.58	3.71	3.41
1979/80	4.22	4.42	4.28	4.39	4.55	4.67	4.60	4.40	4.35	4.14	3.96	4.14	4.34
1980/81	4.12	4.25	4.34	4.49	4.70	4.91	4.60	4.67	4.50	4.40	4.57	4.44	4.50
1981/82	4.36	4.26	4.16	4.22	4.29	4.44	4.33	4.35	4.32	4.29	4.32	4.24	4.30
1982/83	4.15	4.12	4.00	3.94	3.80	4.09	4.24	4.19	4.17	4.27	4.35	4.22	4.13
1983/84	4.22	4.15	4.16	4.21	4.20	4.17	4.11	4.06	3.95	4.12	4.22	4.17	4.15
1984/85	4.15	3.99	3.98	4.03	4.01	3.99	3.91	3.87	3.87	3.80	3.84	3.72	3.93
1985/86	3.72	3.53	3.36	3.41	3.50	3.70	3.81	3.69	3.65	3.67	3.70	3.65	3.62
1986/87	2.90	2.70	2.55	2.66	2.75	2.84	2.89	2.95	2.98	3.00	3.05	3.17	2.87
1987/88	2.95	2.86	2.90	3.01	3.10	3.15	3.20	3.30	3.38	3.21	3.26	3.31	3.14
1988/89	3.92	3.85	3.85	4.08	4.16	4.23	4.26	4.41	4.40	4.55	4.50	4.60	4.23
1989/90	4.48	4.29	4.24	4.18	4.23	4.31	4.34	4.28	4.12	4.02	4.07	3.91	4.21
1990/91	3.71	3.17	2.94	2.89	2.86	2.84	2.87	2.83	2.88	3.03	3.04	3.05	3.01
1991/92	3.00	2.92	3.11	3.34	3.67	3.79	4.07						

Continued--

Appendix table 17--Wheat cash prices for leading classes at major markets, 1951/52-1991/92--Continued

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
\$/bushel													
CHICAGO, NO. 2 SOFT RED WINTER													
1951/52	2.37	2.34	2.40	2.41	2.46	2.57	2.63	2.57	2.54	2.54	2.49	2.44	2.48
1952/53	2.33	2.23	2.28	2.31	2.30	2.31	2.30	2.29	2.26	2.27	2.20	2.13	2.27
1953/54	1.98	1.92	1.87	1.92	1.94	1.99	2.04	2.12	2.18	2.28	2.13	2.00	2.03
1954/55	1.95	2.04	2.11	2.16	2.15	2.24	2.31	2.34	2.28	2.21	2.15	2.18	2.18
1955/56	2.08	2.00	1.94	1.99	2.05	2.07	2.12	2.14	2.21	2.29	2.37	2.24	2.13
1956/57	2.14	2.10	2.16	2.24	2.26	2.39	2.43	2.44	2.36	2.28	2.23	2.14	2.26
1957/58	2.06	2.15	2.17	2.15	2.15	2.19	2.21	2.22	2.21	2.26	2.23	2.22	2.19
1958/59	1.93	1.87	1.83	1.87	1.92	1.95	1.96	1.98	2.02	2.09	2.06	1.89	1.95
1959/60	1.87	1.90	1.92	1.94	1.96	2.01	2.00	2.03	2.01	2.06	2.11	2.07	1.99
1960/61	1.91	1.85	1.88	1.93	1.97	2.02	2.08	2.15	2.14	2.07	1.93	1.88	1.98
1961/62	1.89	1.94	1.90	1.98	2.01	2.05	2.09	2.06	2.04	2.08	2.13	2.17	2.03
1962/63	2.17	2.15	2.11	2.07	2.05	2.10	2.13	2.13	2.11	2.11	2.16	2.13	2.12
1963/64	1.96	1.84	1.83	1.97	2.15	2.17	2.20	2.24	2.21	2.03	2.12	2.03	2.06
1964/65	1.53	1.43	1.46	1.49	1.52	1.55	1.52	1.53	1.53	1.51	1.49	1.46	1.50
1965/66	1.44	1.48	1.55	1.58	1.59	1.66	1.69	1.71	1.71	1.63	1.64	1.66	1.61
1966/67	1.79	1.90	1.90	1.86	1.72	1.76	1.80	1.71	1.70	1.80	1.73	1.67	1.78
1967/68	1.58	1.50	1.49	1.51	1.52	1.45	1.46	1.49	1.51	1.50	1.41	1.38	1.48
1968/69	1.30	1.28	1.22	1.20	1.25	1.32	1.33	1.38	1.36	1.32	1.32	1.33	1.30
1969/70	1.28	1.30	1.27	1.31	1.36	1.41	1.48	1.49	1.55	1.53	1.55	1.48	1.42
1970/71	1.41	1.45	1.52	1.67	1.74	1.77	1.74	1.75	1.74	1.70	1.67	1.61	1.65
1971/72	1.64	1.54	1.45	1.45	1.53	1.60	1.71	1.69	1.61	1.62	1.66	1.63	1.59
1972/73	1.46	1.53	1.76	2.02	2.11	2.28	2.60	2.65	2.47	2.37	2.45	2.71	2.20
1973/74	2.82	3.08	4.75	5.11	4.75	5.47	5.84	6.30	6.50	5.59	4.33	3.48	4.84
1974/75	3.91	4.40	4.34	4.41	5.03	4.86	4.60	4.02	3.84	3.62	3.63	3.25	4.16
1975/76	3.03	3.42	3.82	4.06	3.84	3.49	3.32	3.45	3.78	3.66	3.34	3.30	3.54
1976/77	3.47	3.37	3.01	2.89	2.72	2.60	2.66	2.73	2.74	2.63	2.53	2.35	2.81
1977/78	2.29	2.20	2.08	2.20	2.27	2.59	2.65	2.69	2.64	2.82	3.11	3.14	2.56
1978/79	3.18	3.22	3.32	3.42	3.51	3.68	3.68	3.73	3.88	3.79	3.60	3.86	3.57
1979/80	4.36	4.39	4.23	4.28	4.30	4.13	4.26	4.36	4.39	4.18	3.96	4.04	4.24
1980/81	3.96	4.17	4.21	4.38	4.70	4.92	4.54	4.57	4.34	4.15	4.18	3.80	4.33
1981/82	3.60	3.70	3.70	3.87	3.97	4.08	3.86	3.77	3.57	3.59	3.70	3.43	3.74
1982/83	3.31	3.36	3.35	3.18	2.98	3.33	3.23	3.32	3.40	3.36	3.51	3.55	3.32
1983/84	3.53	3.59	3.71	3.62	3.56	3.42	3.55	3.47	3.34	3.57	3.65	3.65	3.55
1984/85	3.51	3.44	3.49	3.47	3.51	3.62	3.49	3.51	3.55	3.58	3.63	3.34	3.51
1985/86	3.27	3.09	2.87	2.83	3.04	3.33	3.46	3.34	3.37	3.40	3.39	3.25	3.22
1986/87	2.52	2.58	2.44	2.36	2.57	2.73	2.76	2.87	2.91	3.11	3.16	3.08	2.76
1987/88	2.63	2.54	2.61	2.77	2.82	2.80	3.00	3.23	3.23	2.94	3.02	3.13	2.89
1988/89	3.56	3.52	3.61	3.84	4.07	4.09	4.25	4.39	4.30	4.31	4.04	4.07	4.00
1989/90	3.87	3.92	3.94	3.93	4.07	4.07	4.13	4.03	3.92	3.61	3.83	3.71	3.92
1990/91	3.26	3.04	2.83	2.62	2.62	2.53	2.52	2.50	2.53	2.76	2.80	2.83	2.74
1991/92	2.86	2.79	2.97	3.24	3.50	3.57	3.79						
ST. LOUIS, NO. 2 SOFT RED WINTER													
1951/52	2.33	2.31	2.37	2.40	2.48	2.57	2.65	2.60	2.58	2.56	2.49	2.41	2.48
1952/53	2.27	2.20	2.25	2.30	2.33	2.34	2.34	2.38	2.35	2.34	2.26	2.15	2.29
1953/54	1.94	1.91	1.89	1.93	1.97	2.04	2.11	2.21	2.27	2.34	2.21	2.12	2.08
1954/55	1.94	2.05	2.14	2.19	2.20	2.29	2.33	2.38	2.31	2.25	2.24	2.26	2.22
1955/56	2.06	2.01	1.95	1.96	2.00	2.05	2.14	2.17	2.23	2.29	2.36	2.23	2.12
1956/57	2.14	2.06	2.17	2.26	2.29	2.39	2.42	2.44	2.33	2.31	2.25	2.18	2.27
1957/58	2.09	2.14	2.16	2.15	2.14	2.20	2.25	2.28	2.24	2.27	2.27	2.27	2.21
1958/59	2.02	1.85	1.84	1.89	1.96	1.98	2.00	2.04	2.06	2.09	2.01	1.85	1.97
1959/60	1.85	1.89	1.94	1.95	1.98	2.03	2.05	2.08	2.04	2.09	2.15	2.04	2.01
1960/61	1.91	1.86	1.89	1.92	1.98	2.03	2.10	2.17	2.16	2.10	1.91	1.83	1.99
1961/62	1.84	1.94	1.99	2.02	2.05	2.05	2.09	2.07	2.06	2.10	2.14	2.18	2.04
1962/63	2.18	2.16	2.12	2.09	2.09	2.12	2.15	2.18	2.19	2.19	2.25	2.20	2.16
1963/64	1.92	1.84	1.84	2.00	2.18	2.21	2.24	2.32	2.28	2.08	2.16	2.02	2.09
1964/65	1.43	1.45	1.46	1.49	1.51	1.56	1.55	1.57	1.58	1.56	1.54	1.45	1.51
1965/66	1.44	1.47	1.52	1.55	1.57	1.66	1.70	1.73	1.74	1.66	1.66	1.66	1.61
1966/67	1.81	1.88	1.88	1.85	1.71	1.77	1.88	1.74	1.73	1.82	1.75	1.67	1.79
1967/68	1.57	1.48	1.45	1.47	1.50	1.45	1.50	1.52	1.55	1.52	1.46	1.44	1.49
1968/69	1.26	1.28	1.21	1.17	1.27	1.36	1.38	1.42	1.39	1.34	1.35	1.37	1.32
1969/70	1.31	1.29	1.28	1.32	1.34	1.43	1.50	1.50	1.54	1.52	1.56	1.49	1.42
1970/71	1.41	1.42	1.45	1.64	1.69	1.71	1.68	1.71	1.71	1.63	1.57	1.49	1.59
1971/72	1.52	1.44	1.34	1.33	1.41	1.49	1.57	1.57	1.52	1.57	1.65	1.64	1.50
1972/73	1.37	1.46	1.63	1.92	2.09	2.23	2.59	2.64	2.47	2.32	2.34	2.50	2.13
1973/74	2.64	2.91	4.37	4.94	4.53	4.69	5.46	6.22	5.96	5.08	4.02	3.31	4.51
1974/75	3.84	4.35	4.24	4.36	4.86	4.70	4.57	4.04	3.86	3.68	3.58	3.20	4.11
1975/76	2.94	3.29	3.71	3.76	3.63	3.50	3.36	3.49	3.68	3.57	3.30	3.28	3.46
1976/77	3.39	3.32	2.98	2.86	2.60	2.60	2.65	2.68	2.67	2.62	2.53	2.32	2.77
1977/78	2.15	2.14	1.97	2.01	2.28	2.70	2.74	2.75	2.71	2.90	3.09	2.99	2.54
1978/79	3.05	3.16	3.21	3.23	3.41	3.57	3.50	3.57	3.66	3.51	3.62	3.68	3.43
1979/80	4.08	4.18	4.04	4.08	4.02	4.10	4.28	4.26	4.32	4.11	3.80	3.93	4.10
1980/81	3.73	4.10	4.19	4.42	4.78	4.96	4.78	4.80	4.57	4.32	4.36	3.67	4.39
1981/82	3.41	3.54	3.56	3.67	3.74	4.05	3.90	3.76	3.60	3.61	3.72	3.31	3.66
1982/83	3.25	3.27	3.14	3.06	3.06	3.38	3.28	3.33	3.41	3.43	3.58	3.61	3.32
1983/84	3.46	3.51	3.79	3.70	3.62	3.58	3.67	3.62	3.46	3.71	3.82	3.51	3.62
1984/85	3.45	3.44	3.50	3.52	3.60	3.72	3.67	3.69	3.65	3.67	3.65	3.24	3.57
1985/86	3.29	3.07	2.84	2.85	3.10	3.42	3.58	3.48	3.49	3.64	3.66	2.74	3.26
1986/87	2.61	2.60	2.54	2.55	2.88	3.05	3.06	3.08	3.05	3.09	2.88	3.03	2.87
1987/88	2.63	2.58	2.59	2.77	2.95	2.97	3.22	3.24	3.18	2.98	3.10	3.20	2.95
1988/89	3.50	3.56	3.73	3.94	4.13	4.22	4.33	4.46	4.30	4.39	4.22	4.20	4.08
1989/90	3.89	3.95	3.79	4.03	4.05	4.20	4.19	4.13	4.00	3.87	3.88	3.33	3.94
1990/91	3.27	3.02	2.85	2.66	2.57	2.65	2.71	2.61	2.64	2.85	2.91	2.98	2.81
1991/92	2.89	2.65	2.76	2.86	3.00	3.34	3.63						

Continued--

Appendix table 17--Wheat cash prices for leading classes at major markets, 1951/52-1991/92--Continued

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
\$/bushel													
TOLEDO, NO. 2 SOFT RED WINTER													
1951/52	2.23	2.21	2.32	2.35	2.39	2.48	2.58	2.55	2.51	2.49	2.44	2.35	2.41
1952/53	2.14	2.06	2.11	2.15	2.13	2.17	2.21	2.18	2.15	2.17	2.11	2.08	2.14
1953/54	1.90	1.77	1.76	1.82	1.87	1.93	2.00	2.10	2.14	2.21	2.09	2.01	1.97
1954/55	1.87	1.96	2.02	2.04	2.07	2.18	2.18	2.23	2.18	2.10	2.07	2.09	2.03
1955/56	2.02	1.90	1.80	1.86	1.93	1.97	2.05	2.05	2.11	2.18	2.28	2.16	2.08
1956/57	2.19	2.03	2.07	2.10	2.17	2.34	2.38	2.36	2.24	2.18	2.16	2.05	2.19
1957/58	2.01	2.04	2.09	2.12	2.11	2.16	2.19	2.16	2.14	2.13	2.14	2.15	2.12
1958/59	2.10	1.77	1.73	1.76	1.83	1.87	1.88	1.89	1.93	1.97	1.93	1.86	1.88
1959/60	1.80	1.82	1.81	1.85	1.91	1.98	1.98	2.00	1.96	2.01	2.05	2.00	1.93
1960/61	1.88	1.74	1.77	1.82	1.90	1.95	1.99	2.04	2.02	1.99	1.85	1.80	1.90
1961/62	1.82	1.87	1.90	1.92	1.94	2.01	2.04	2.01	1.99	2.03	2.07	2.14	1.98
1962/63	2.11	2.10	2.06	2.04	2.05	2.08	2.10	2.07	2.04	2.03	2.06	2.04	2.07
1963/64	2.02	1.76	1.74	1.88	2.09	2.11	2.17	2.20	2.18	2.03	2.12	1.99	2.07
1964/65	1.46	1.41	1.40	1.43	1.44	1.45	1.47	1.47	1.49	1.50	1.47	1.45	1.45
1965/66	1.42	1.44	1.50	1.56	1.58	1.65	1.69	1.71	1.69	1.64	1.57	1.59	1.59
1966/67	1.76	1.84	1.84	1.79	1.68	1.71	1.75	1.65	1.65	1.73	1.65	1.62	1.72
1967/68	1.53	1.45	1.41	1.40	1.41	1.39	1.44	1.43	1.43	1.42	1.37	1.36	1.42
1968/69	1.27	1.23	1.13	1.11	1.18	1.29	1.31	1.33	1.31	1.29	1.29	1.30	1.25
1969/70	1.28	1.25	1.22	1.26	1.30	1.38	1.45	1.46	1.52	1.52	1.58	1.50	1.39
1970/71	1.43	1.43	1.51	1.64	1.69	1.73	1.72	1.73	1.74	1.65	1.60	1.58	1.62
1971/72	1.60	1.46	1.35	1.35	1.45	1.52	1.57	1.59	1.52	1.55	1.60	1.68	1.52
1972/73	1.51	1.43	1.62	1.92	2.07	2.30	2.64	2.66	2.46	2.38	2.45	2.61	2.17
1973/74	2.68	3.10	4.71	5.07	4.70	5.22	5.50	6.18	6.52	5.50	4.17	3.27	4.72
1974/75	3.77	4.29	4.28	4.33	4.93	4.81	4.59	4.00	3.83	3.60	3.52	3.07	4.09
1975/76	2.96	3.27	3.71	3.86	3.69	3.34	3.28	3.37	3.64	3.56	3.27	3.22	3.43
1976/77	3.40	3.27	2.96	2.90	2.70	2.59	2.64	2.69	2.68	2.55	2.46	2.30	2.76
1977/78	2.21	2.13	2.03	2.08	2.21	2.53	2.57	2.62	2.55	2.77	3.07	3.03	2.48
1978/79	3.09	3.13	3.21	3.32	3.46	3.73	3.72	3.73	3.69	3.66	3.56	3.71	3.50
1979/80	4.17	4.37	4.22	4.28	4.29	4.21	4.28	4.21	4.32	4.08	3.80	3.90	4.18
1980/81	3.84	4.14	4.16	4.38	4.82	5.02	4.65	4.70	4.47	4.16	4.16	3.76	4.35
1981/82	3.55	3.63	3.71	3.83	3.98	4.08	3.85	3.71	3.47	3.46	3.63	3.45	3.70
1982/83	3.35	3.36	3.28	3.09	2.84	3.19	3.23	3.28	3.32	3.29	3.45	3.47	3.26
1983/84	3.42	3.48	3.69	3.54	3.43	3.37	3.46	3.43	3.26	3.50	3.61	3.60	3.48
1984/85	3.50	3.44	3.44	3.44	3.43	3.53	3.43	3.52	3.56	3.54	3.58	3.30	3.48
1985/86	3.22	3.02	2.77	2.74	2.90	3.18	3.39	3.32	3.34	3.47	3.30	3.22	3.16
1986/87	2.58	2.55	2.45	2.33	2.61	2.75	2.81	2.92	2.93	3.06	2.99	3.07	2.75
1987/88	2.60	2.55	2.54	2.69	2.86	2.82	3.10	3.21	3.20	2.92	2.99	3.07	2.88
1988/89	3.63	3.63	3.73	3.93	4.02	4.06	4.26	4.37	4.24	4.26	4.02	4.09	4.02
1989/90	3.86	3.86	3.86	3.84	3.95	3.99	4.09	3.96	3.86	3.83	3.90	3.52	3.88
1990/91	3.28	3.05	2.78	2.57	2.49	2.41	2.49	2.50	2.53	2.72	2.75	2.77	2.70
1991/92	2.82	2.78	3.01	3.25	3.51	3.58	3.93						
TOLEDO, NO. 2 SOFT WHITE													
1951/52	2.23	2.21	2.32	2.35	2.39	2.48	2.58	2.55	2.47	2.47	2.41	2.36	2.40
1952/53	2.15	2.08	2.13	2.13	2.12	2.19	2.24	2.16	2.13	2.15	2.08	2.05	2.13
1953/54	1.81	1.79	1.79	1.86	1.89	1.95	2.04	2.10	2.11	2.18	2.07	1.99	1.97
1954/55	1.86	1.97	2.03	2.05	2.12	2.24	2.23	2.25	2.22	2.20	2.14	2.14	2.12
1955/56	2.08	1.96	1.85	1.89	2.00	2.05	2.11	2.09	2.12	2.17	2.25	2.17	2.06
1956/57	2.22	2.03	2.07	2.12	2.19	2.36	2.37	2.35	2.22	2.17	2.16	2.04	2.19
1957/58	2.01	2.05	2.12	2.14	2.17	2.25	2.22	2.17	2.14	2.16	2.19	2.22	2.15
1958/59	2.17	1.78	1.73	1.79	1.87	1.90	1.90	1.88	1.91	2.93	1.89	1.84	1.97
1959/60	1.80	1.82	1.79	1.84	1.87	1.95	1.96	1.98	1.95	2.04	2.07	2.07	1.93
1960/61	1.91	1.77	1.85	1.90	1.98	1.96	1.99	2.03	2.01	1.98	1.82	1.79	1.92
1961/62	1.82	1.87	1.90	1.91	1.93	2.01	2.04	2.02	1.99	2.02	2.07	2.13	1.98
1962/63	2.11	2.10	2.06	2.03	2.03	2.08	2.12	2.08	2.09	2.06	2.11	2.07	2.08
1963/64	2.02	1.78	1.77	1.91	2.08	2.10	2.16	2.20	2.18	2.03	2.13	1.99	2.03
1964/65	1.46	1.41	1.41	1.43	1.44	1.45	1.46	1.45	1.45	1.47	1.44	1.43	1.44
1965/66	1.41	1.44	1.53	1.57	1.59	1.65	1.69	1.74	1.73	1.59	1.61	1.63	1.60
1966/67	1.78	1.85	1.87	1.82	1.68	1.71	1.75	1.65	1.64	1.72	1.64	1.60	1.73
1967/68	1.53	1.45	1.41	1.40	1.41	1.39	1.44	1.42	1.43	1.42	1.37	1.36	1.42
1968/69	1.27	1.23	1.13	1.12	1.19	1.29	1.31	1.33	1.31	1.29	1.28	1.29	1.25
1969/70	1.27	1.25	1.24	1.28	1.31	1.40	1.47	1.48	1.53	1.51	1.56	1.48	1.40
1970/71	1.41	1.45	1.51	1.64	1.69	1.73	1.72	1.70	1.69	1.59	1.55	1.51	1.60
1971/72	1.57	1.49	1.44	1.46	1.53	1.58	1.61	1.61	1.54	1.57	1.63	1.68	1.56
1972/73	1.51	1.49	1.72	1.97	2.07	2.30	2.64	2.65	2.46	2.38	2.44	2.58	2.18
1973/74	2.66	3.10	4.76	5.14	4.71	5.22	5.50	6.18	6.53	5.60	3.91	3.27	4.72
1974/75	3.75	4.24	4.22	4.22	4.78	4.63	4.44	3.85	3.67	3.44	3.37	2.95	3.96
1975/76	2.85	3.21	3.62	3.78	3.60	3.28	3.23	3.32	3.59	3.52	3.22	3.14	3.36
1976/77	3.35	3.24	2.94	2.89	2.71	2.57	2.64	2.70	2.69	2.54	2.45	2.29	2.75
1977/78	2.21	2.16	2.04	2.06	2.18	2.52	2.56	2.62	2.56	2.77	3.07	3.03	2.48
1978/79	3.10	3.26	3.45	3.63	3.69	3.87	3.78	3.72	3.63	3.44	3.35	3.53	3.54
1979/80	4.08	4.13	4.15	4.17	4.12	4.20	4.18	4.10	4.14	3.90	3.63	3.74	4.05
1980/81	3.71	4.05	4.15	4.31	NA	NA	4.44	4.40	4.21	3.98	3.99	3.62	4.09
1981/82	3.43	3.62	3.77	3.91	3.99	4.10	3.82	3.68	3.49	3.47	3.61	3.45	3.70
1982/83	3.35	3.49	3.42	3.22	2.92	3.22	3.29	3.25	3.39	3.43	3.49	3.48	3.33
1983/84	3.42	3.51	3.71	3.56	3.42	3.36	3.46	3.43	3.25	3.50	3.62	3.49	3.48
1984/85	3.35	3.37	3.42	3.42	3.41	3.51	3.41	3.50	3.53	3.48	3.48	3.18	3.42
1985/86	3.13	3.02	2.89	2.89	3.12	3.30	3.42	3.26	3.26	3.31	2.89	2.93	3.12
1986/87	2.50	2.52	2.48	2.29	2.54	2.69	2.73	2.80	2.84	2.87	2.79	2.89	2.66
1987/88	2.63	2.57	2.69	2.81	2.88	2.95	3.14	3.28	3.27	2.96	3.02	3.09	2.94
1988/89	3.62	3.61	3.69	3.87	3.94	3.95	4.11	4.22	4.02	4.06	3.80	3.91	3.90
1989/90	3.81	3.82	3.83	3.79	3.91	3.93	4.01	3.86	3.74	3.70	3.72	3.44	3.80
1990/91	3.21	2.96	2.69	2.48	2.39	2.28	2.38	2.37	2.52	2.61	2.67	2.68	2.60
1991/92	2.69	2.62	2.86	3.09	3.32	3.41	3.73						

Continued--

Appendix table 17--Wheat cash prices for leading classes at major markets, 1951/52-1991/92--Continued

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
\$/bushel													
PORTLAND, NO. 1 SOFT WHITE													
1951/52	2.27	2.27	2.29	2.36	2.42	2.44	2.46	2.49	2.52	2.54	2.51	2.48	2.42
1952/53	2.49	2.35	2.37	2.36	2.37	2.41	2.41	2.41	2.44	2.45	2.45	2.39	2.41
1953/54	2.36	2.29	2.23	2.25	2.30	2.35	2.35	2.33	2.34	2.34	2.34	2.33	2.32
1954/55	2.33	2.28	2.32	2.34	2.31	2.34	2.34	2.36	2.37	2.39	2.41	2.40	2.35
1955/56	2.46	2.26	2.16	2.17	2.14	2.14	2.19	2.19	2.19	2.23	2.23	2.22	2.22
1956/57	2.14	2.09	2.12	2.20	2.26	2.34	2.46	2.51	2.59	2.61	2.63	2.58	2.38
1957/58	2.47	2.33	2.31	2.32	2.31	2.33	2.30	2.26	2.25	2.24	2.21	2.14	2.29
1958/59	2.08	1.96	1.96	1.97	2.03	2.04	2.03	2.02	2.04	2.03	2.03	2.05	2.02
1959/60	2.00	1.96	1.91	1.93	1.98	1.99	2.00	2.02	2.04	2.06	2.10	2.05	2.00
1960/61	1.99	1.94	1.96	1.99	2.01	2.06	2.10	2.12	2.15	2.10	2.04	2.01	2.04
1961/62	1.97	2.02	2.09	2.13	2.13	2.11	2.09	2.05	2.04	2.05	2.12	2.15	2.08
1962/63	2.18	2.19	2.15	2.13	2.13	2.15	2.17	2.19	2.24	2.23	2.26	2.23	2.19
1963/64	2.01	1.96	1.97	2.05	2.15	2.17	2.17	2.25	2.24	2.07	2.15	2.19	2.11
1964/65	1.60	1.53	1.52	1.49	1.48	1.51	1.51	1.49	1.50	1.50	1.52	1.54	1.52
1965/66	1.53	1.45	1.48	1.48	1.53	1.55	1.57	1.60	1.57	1.51	1.53	1.53	1.53
1966/67	1.61	1.84	1.84	1.84	1.75	1.73	1.73	1.74	1.67	1.72	1.75	1.79	1.75
1967/68	1.77	1.61	1.60	1.60	1.59	1.58	1.62	1.66	1.70	1.66	1.63	1.60	1.64
1968/69	1.60	1.48	1.45	1.45	1.46	1.49	1.49	1.48	1.48	1.46	1.46	1.48	1.48
1969/70	1.49	1.42	1.38	1.40	1.44	1.47	1.51	1.53	1.52	1.53	1.58	1.57	1.49
1970/71	1.57	1.53	1.53	1.59	1.63	1.72	1.77	1.78	1.77	1.77	1.77	1.83	1.69
1971/72	1.75	1.60	1.55	1.54	1.56	1.55	1.56	1.57	1.57	1.60	1.70	1.74	1.61
1972/73	1.67	1.61	1.82	2.12	2.41	2.54	2.78	2.80	2.56	2.59	2.61	2.77	2.36
1973/74	3.13	3.43	4.88	5.20	4.95	4.81	5.27	5.72	6.01	5.26	4.19	3.69	4.71
1974/75	4.30	4.66	4.57	4.57	5.17	5.16	5.01	4.45	4.15	3.94	3.88	3.48	4.44
1975/76	3.33	3.79	4.27	4.39	4.23	3.85	3.73	3.80	4.03	3.90	3.71	3.55	3.88
1976/77	3.60	3.58	3.35	3.25	3.02	2.94	2.78	2.88	2.98	2.95	2.96	2.93	3.10
1977/78	2.79	2.88	2.88	2.80	2.75	2.91	2.97	3.17	3.33	3.41	3.62	3.60	3.09
1978/79	3.60	3.74	3.72	3.77	3.76	3.76	3.71	3.70	3.65	3.70	3.70	3.91	3.73
1979/80	4.46	4.67	4.45	4.31	4.13	4.16	4.10	4.10	4.26	4.13	4.02	3.91	4.23
1980/81	3.92	4.15	4.06	4.23	4.48	4.68	4.40	4.52	4.52	4.41	4.51	4.41	4.36
1981/82	4.26	4.27	4.25	4.21	4.38	4.42	4.00	4.12	4.09	4.02	4.14	4.24	4.20
1982/83	4.18	4.13	4.16	4.29	4.29	4.44	4.45	4.52	4.59	4.68	4.62	4.35	4.39
1983/84	4.15	4.08	4.06	4.12	4.03	3.90	3.81	3.79	3.69	3.73	4.03	4.05	3.95
1984/85	4.03	3.73	3.74	3.70	3.73	3.78	3.76	3.77	3.83	3.93	3.94	3.91	3.82
1985/86	3.73	3.57	3.45	3.57	3.72	3.77	3.80	3.75	3.74	3.85	3.88	3.78	3.72
1986/87	3.03	2.75	2.68	2.70	2.78	2.84	2.86	2.93	3.07	3.07	2.99	3.09	2.90
1987/88	2.87	2.79	2.73	2.94	3.08	2.97	3.05	3.26	3.21	3.10	3.32	3.36	3.06
1988/89	3.79	4.05	4.15	4.39	4.46	4.68	4.81	4.98	4.97	4.81	4.63	4.66	4.53
1989/90	4.47	4.47	4.50	4.56	4.55	4.56	4.63	4.44	4.11	3.76	3.68	3.61	4.28
1990/91	3.59	3.44	3.21	3.10	2.87	2.86	2.89	2.92	3.03	3.20	3.35	3.43	3.16
1991/92	3.45	3.37	3.48	3.67	3.91	4.28	4.55						
MINNEAPOLIS, DARK NO. 1 SPRING (13% PROTEIN)													
1951/52	2.37	2.34	2.36	2.37	2.44	2.53	2.53	2.50	2.46	2.48	2.44	2.44	2.44
1952/53	2.46	2.45	2.41	2.41	2.44	2.47	2.46	2.43	2.44	2.48	2.48	2.48	2.45
1953/54	2.45	2.38	2.40	2.44	2.53	2.50	2.48	2.49	2.49	2.51	2.53	2.54	2.48
1954/55	2.53	2.56	2.55	2.64	2.67	2.66	2.64	2.65	2.63	2.65	2.62	2.69	2.62
1955/56	2.66	2.57	2.37	2.42	2.43	2.39	2.38	2.37	2.37	2.35	2.41	2.37	2.42
1956/57	2.34	2.41	2.30	2.30	2.29	2.39	2.36	2.37	2.35	2.33	2.32	2.27	2.34
1957/58	2.28	2.32	2.28	2.31	2.35	2.38	2.34	2.33	2.34	2.34	2.37	2.39	2.34
1958/59	2.44	2.36	2.10	2.13	2.17	2.16	2.14	2.12	2.13	2.12	2.13	2.17	2.18
1959/60	2.21	2.23	2.18	2.18	2.21	2.23	2.21	2.19	2.20	2.21	2.22	2.23	2.21
1960/61	2.24	2.21	2.09	2.10	2.13	2.13	2.13	2.14	2.13	2.13	2.14	2.17	2.15
1961/62	2.25	2.30	2.25	2.28	2.31	2.33	2.37	2.38	2.38	2.38	2.39	2.38	2.33
1962/63	2.37	2.39	2.34	2.35	2.40	2.42	2.41	2.40	2.41	2.41	2.42	2.38	2.39
1963/64	2.45	2.28	2.18	2.30	2.37	2.35	2.34	2.32	2.28	2.21	2.22	2.30	2.30
1964/65	2.05	1.71	1.70	1.76	1.80	1.81	1.80	1.79	1.78	1.77	1.76	1.77	1.79
1965/66	1.74	1.80	1.71	1.76	1.75	1.77	1.77	1.78	1.77	1.74	1.76	1.79	1.76
1966/67	1.92	2.02	2.04	2.05	1.97	1.95	1.95	1.90	1.89	1.94	1.92	1.96	1.96
1967/68	1.92	1.91	1.81	1.76	1.74	1.73	1.69	1.70	1.70	1.71	1.68	1.64	1.75
1968/69	1.60	1.54	1.53	1.60	1.64	1.65	1.61	1.62	1.61	1.62	1.61	1.60	1.60
1969/70	1.59	1.61	1.58	1.65	1.70	1.74	1.76	1.75	1.71	1.70	1.75	1.75	1.69
1970/71	1.78	1.81	1.81	1.88	1.91	1.92	1.88	1.83	1.79	1.74	1.75	1.72	1.82
1971/72	1.71	1.66	1.55	1.55	1.58	1.59	1.61	1.61	1.59	1.59	1.57	1.59	1.60
1972/73	1.56	1.63	1.79	2.00	2.10	2.16	2.41	2.42	2.26	2.32	2.37	2.52	2.13
1973/74	2.71	3.04	4.47	4.76	4.40	4.47	4.99	5.52	5.81	5.25	4.29	4.06	4.48
1974/75	4.70	5.04	4.82	4.85	5.46	5.54	5.18	4.53	4.26	4.18	4.19	4.34	4.76
1975/76	3.96	4.24	4.58	4.59	4.46	4.07	3.90	3.98	4.24	4.13	3.94	3.92	4.17
1976/77	4.19	4.04	3.51	3.25	3.09	2.98	2.95	3.01	3.04	2.99	2.91	2.76	3.23
1977/78	2.59	2.49	2.41	2.66	2.75	2.88	2.88	2.93	2.88	3.03	3.23	3.27	2.83
1978/79	3.19	3.08	3.11	3.23	3.40	3.47	3.34	3.30	3.32	3.38	3.44	3.72	3.33
1979/80	4.32	4.42	4.18	4.25	4.43	4.32	4.16	4.06	4.10	4.04	3.96	4.26	4.21
1980/81	4.29	4.65	4.29	4.30	4.70	4.85	4.67	4.71	4.67	4.52	4.60	4.61	4.57
1981/82	4.45	4.34	4.13	4.19	4.30	4.37	4.21	4.28	4.21	4.14	4.25	4.20	4.26
1982/83	4.12	4.13	3.92	3.94	3.93	4.01	3.90	3.88	3.90	4.08	4.41	4.37	4.05
1983/84	4.32	4.24	4.32	4.31	4.33	4.23	4.20	4.15	4.06	4.21	4.32	4.45	4.26
1984/85	4.45	4.31	3.93	3.78	3.84	3.85	3.68	3.71	3.75	3.78	3.89	3.81	3.90
1985/86	3.79	3.57	3.27	3.43	3.57	3.77	3.79	3.69	3.62	3.71	3.84	3.63	3.64
1986/87	2.91	2.69	2.59	2.64	2.77	2.91	2.88	3.03	2.95	2.94	2.91	2.95	2.85
1987/88	2.74	2.60	2.64	2.82	2.92	2.93	3.01	3.12	3.30	3.11	3.22	3.31	2.98
1988/89	4.21	4.05	4.19	4.27	4.28	4.15	4.22	4.44	4.40	4.56	4.49	4.54	4.32
1989/90	4.33	4.28	4.20	4.10	4.14	4.13	4.24	4.21	4.06	3.98	4.08	4.09	4.15
1990/91	3.90	3.54	3.01	2.78	2.80	2.75	2.79	2.82	2.85	3.00	3.09	3.11	3.04
1991/92	3.03	2.93	3.13	3.19	3.68	3.76	4.12						

Continued--

Appendix table 17--Wheat cash prices for leading classes at major markets, 1951/52-1991/92--Continued

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
\$/bushel													
MINNEAPOLIS, DARK NO. 1 SPRING (15% PROTEIN)													
1951/52	2.54	2.62	2.50	2.46	2.53	2.59	2.56	2.54	2.51	2.53	2.50	2.48	2.53
1952/53	2.49	2.54	2.48	2.48	2.51	2.54	2.52	2.49	2.49	2.51	2.52	2.52	2.51
1953/54	2.47	2.44	2.50	2.58	2.74	2.74	2.69	2.69	2.67	2.73	2.80	2.82	2.66
1954/55	2.82	2.91	2.78	2.82	2.84	2.87	2.85	2.83	2.77	2.78	2.78	2.86	2.83
1955/56	2.84	2.77	2.50	2.46	2.47	2.47	2.44	2.41	2.41	2.42	2.45	2.43	2.51
1956/57	2.41	2.46	2.40	2.42	2.45	2.50	2.44	2.42	2.39	2.40	2.40	2.36	2.42
1957/58	2.42	2.46	2.35	2.37	2.41	2.41	2.36	2.36	2.36	2.38	2.40	2.41	2.39
1958/59	2.46	2.41	2.19	2.22	2.26	2.26	2.24	2.22	2.22	2.21	2.21	2.25	2.26
1959/60	2.29	2.32	2.26	2.24	2.27	2.28	2.24	2.24	2.23	2.24	2.25	2.26	2.26
1960/61	2.27	2.26	2.14	2.17	2.16	2.16	2.16	2.16	2.16	2.16	2.18	2.21	2.18
1961/62	2.28	2.35	2.30	2.34	2.37	2.39	2.43	2.44	2.43	2.43	2.45	2.47	2.39
1962/63	2.47	2.50	2.45	2.49	2.53	2.56	2.55	2.54	2.55	2.51	2.50	2.43	2.51
1963/64	2.50	2.32	2.23	2.29	2.41	2.37	2.36	2.34	2.29	2.22	2.28	2.34	2.33
1964/65	2.06	1.73	1.73	1.77	1.81	1.82	1.80	1.79	1.79	1.79	1.78	1.79	1.81
1965/66	1.78	1.83	1.79	1.83	1.83	1.86	1.86	1.88	1.92	1.89	1.86	1.88	1.85
1966/67	1.98	2.06	2.07	2.05	1.99	1.97	1.95	1.91	1.91	1.95	1.93	1.97	1.98
1967/68	1.92	1.91	1.87	1.86	1.89	1.83	1.80	1.81	1.81	1.82	1.79	1.75	1.84
1968/69	1.73	1.68	1.68	1.78	1.85	1.81	1.77	1.84	1.82	1.84	1.81	1.82	1.79
1969/70	1.79	1.82	1.73	1.79	1.80	1.83	1.84	1.84	1.84	1.83	1.89	1.90	1.83
1970/71	1.92	1.90	1.87	1.92	1.96	1.97	1.90	1.90	1.87	1.82	1.83	1.82	1.89
1971/72	1.80	1.73	1.66	1.72	1.77	1.72	1.72	1.74	1.69	1.70	1.73	1.76	1.73
1972/73	1.70	1.74	1.96	2.09	2.14	2.22	2.42	2.42	2.29	2.33	2.39	2.57	2.19
1973/74	2.80	3.07	4.50	4.80	4.50	4.48	4.98	5.52	5.83	5.33	4.41	4.23	4.54
1974/75	5.07	5.36	5.07	5.20	5.63	5.62	5.38	4.80	4.49	4.53	4.56	4.64	5.03
1975/76	4.30	4.69	4.90	5.12	5.03	4.74	4.46	4.54	4.70	4.66	4.48	4.65	4.69
1976/77	4.75	4.44	3.79	3.56	3.41	3.30	3.14	3.13	3.15	3.13	3.09	2.91	3.48
1977/78	2.71	2.60	2.56	2.93	3.00	3.11	2.97	3.02	3.01	3.10	3.26	3.31	2.97
1978/79	3.24	3.16	3.18	3.31	3.45	3.48	3.34	3.35	3.48	3.55	3.54	3.81	3.41
1979/80	4.37	4.45	4.25	4.52	4.63	4.46	4.28	4.24	4.25	4.21	4.14	4.49	4.36
1980/81	4.52	4.90	4.75	4.97	5.16	5.28	5.07	5.06	5.05	4.92	5.12	5.10	4.99
1981/82	4.89	4.71	4.34	4.35	4.34	4.42	4.25	4.30	4.23	4.17	4.27	4.20	4.37
1982/83	4.13	4.24	4.04	4.16	4.14	4.23	4.06	4.02	4.00	4.18	4.49	4.46	4.18
1983/84	4.50	4.51	4.39	4.38	4.38	4.27	4.26	4.20	4.13	4.20	4.44	4.48	4.35
1984/85	4.48	4.34	4.29	4.23	4.27	4.28	4.24	4.23	4.24	4.24	4.39	4.29	4.29
1985/86	4.28	4.02	3.87	4.22	4.25	4.44	4.50	4.31	4.23	4.25	4.47	4.37	4.27
1986/87	3.44	3.31	3.22	3.21	3.34	3.53	3.29	3.52	3.57	3.68	3.82	4.22	3.51
1987/88	4.14	3.61	3.43	3.59	3.69	3.63	3.59	3.64	3.73	3.52	3.71	3.82	3.68
1988/89	4.57	4.54	4.36	4.39	4.39	4.30	4.30	4.43	4.40	4.56	4.47	4.57	4.44
1989/90	4.48	4.44	4.17	4.07	4.14	4.11	4.22	4.21	4.05	3.96	4.07	4.09	4.17
1990/91	3.94	3.58	3.18	3.16	3.14	3.11	3.05	3.04	3.05	3.18	3.22	3.26	3.24
1991/92	3.20	3.09	3.22	3.30	3.76	3.84	4.18						
MINNEAPOLIS: NO. 1 DARK NO. SPRING (14% PROTEIN)													
1971/72	1.74	1.73	1.66	1.72	1.77	1.72	1.72	1.74	1.69	1.70	1.73	1.76	1.72
1972/73	1.70	1.74	1.96	2.09	2.14	2.22	2.42	2.42	2.29	2.33	2.39	2.57	2.19
1973/74	2.80	3.07	4.50	4.80	4.50	4.48	4.98	5.52	5.83	5.33	4.41	4.23	4.54
1974/75	4.86	4.96	4.96	5.03	5.57	5.58	5.25	4.65	4.37	4.32	4.35	4.29	4.85
1975/76	4.19	4.48	4.75	4.82	4.71	4.38	4.17	4.23	4.44	4.38	4.24	4.26	4.42
1976/77	4.43	4.25	3.65	3.41	3.26	3.16	3.05	3.05	3.08	3.05	3.02	2.83	3.35
1977/78	2.65	2.54	2.48	2.75	2.87	2.96	2.92	2.94	2.90	3.03	3.23	3.27	2.88
1978/79	3.21	3.11	3.13	3.26	3.41	3.47	3.32	3.30	3.36	3.42	3.45	3.73	3.35
1979/80	4.32	4.42	4.19	4.29	4.45	4.29	4.17	4.07	4.08	4.02	3.96	4.31	4.21
1980/81	4.33	4.69	4.55	4.56	4.82	4.95	4.77	4.81	4.78	4.67	4.80	4.77	4.71
1981/82	4.56	4.50	4.25	4.23	4.29	4.38	4.22	4.28	4.21	4.16	4.25	4.20	4.29
1982/83	4.13	4.16	3.96	4.02	4.00	4.08	3.96	3.93	3.92	4.08	4.40	4.40	4.09
1983/84	4.39	4.38	4.34	4.33	4.33	4.25	4.21	4.17	4.08	4.24	4.37	4.45	4.30
1984/85	4.45	4.34	4.07	3.97	4.03	4.02	3.92	3.90	3.92	3.94	4.36	4.02	4.08
1985/86	3.99	3.77	3.56	3.76	3.91	4.09	4.16	3.97	3.90	4.00	4.17	4.03	3.94
1986/87	3.17	3.00	2.86	2.85	2.98	3.09	3.04	3.08	3.13	3.19	3.17	3.24	3.07
1987/88	3.07	2.94	2.94	3.04	3.15	3.11	3.13	3.24	3.32	3.15	3.30	3.42	3.15
1988/89	4.32	4.23	4.24	4.32	4.33	4.22	4.26	4.44	4.40	4.56	4.47	4.55	4.36
1989/90	4.41	4.36	4.18	4.08	4.14	4.12	4.23	4.21	4.06	3.96	4.08	4.09	4.16
1990/91	3.96	3.56	3.05	2.84	2.85	2.80	2.82	2.83	2.85	3.00	3.07	3.10	3.06
1991/92	3.04	2.94	3.10	3.21	3.68	3.78	4.11						
MINNEAPOLIS, NO. 1 HARD AMBER DURUM													
1971/72	1.74	1.70	1.64	1.65	1.68	1.67	1.70	1.72	1.70	1.71	1.72	1.73	1.70
1972/73	1.73	1.76	1.89	2.05	2.14	2.16	2.39	2.51	2.45	2.52	2.52	2.62	2.23
1973/74	2.89	4.04	7.52	7.08	5.90	6.26	7.57	8.11	8.32	7.43	5.97	6.51	6.47
1974/75	6.37	7.17	6.66	6.70	7.17	7.16	6.16	5.98	6.08	5.87	6.33	6.23	6.49
1975/76	5.37	5.58	6.22	6.25	5.89	5.26	4.67	4.61	4.69	4.68	4.43	4.25	5.16
1976/77	4.23	4.05	3.51	3.33	3.16	3.14	2.96	2.97	3.05	3.10	3.09	3.03	3.30
1977/78	2.84	2.84	2.80	3.12	3.42	3.54	3.51	3.62	3.61	3.60	3.72	3.79	3.37
1978/79	3.72	3.56	3.55	3.52	3.69	3.70	3.53	3.60	3.64	3.72	3.71	3.98	3.66
1979/80	4.75	4.99	4.88	5.27	5.80	5.38	4.99	4.93	5.05	4.98	4.89	5.21	5.09
1980/81	5.79	7.12	7.19	7.26	7.34	7.22	6.90	7.07	7.02	6.66	6.10	6.04	6.81
1981/82	4.86	4.91	4.75	4.56	4.60	4.58	4.51	4.59	4.57	4.45	4.45	4.49	4.61
1982/83	4.38	4.26	4.07	4.02	4.11	4.17	4.07	4.06	4.12	4.28	4.54	4.90	4.25
1983/84	4.76	4.74	5.04	5.10	4.99	4.91	4.82	4.81	4.69	4.70	4.74	4.71	4.83
1984/85	4.68	4.57	4.65	4.43	4.47	4.46	4.43	4.34	4.37	4.33	4.36	4.32	4.45
1985/86	4.16	4.05	3.99	4.07	4.03	4.08	4.09	4.01	4.01	3.99	4.07	4.24	4.07
1986/87	3.79	3.08	3.04	3.21	3.31	3.49	3.60	3.68	3.78	3.89	3.93	4.03	3.57
1987/88	3.91	3.66	3.80	4.30	4.31	4.33	4.22	4.19	4.22	4.02	4.21	4.39	4.13
1988/89	6.13	6.30	5.85	5.84	5.70	5.56	5.17	5.20	5.33	5.30	5.02	5.01	5.53
1989/90	4.64	4.50	4.33	4.08	4.12	4.02	4.20	4.23	4.12	4.13	4.30	4.31	4.25
1990/91	4.08	3.73	3.41	3.27	3.34	3.24	3.37	3.49	3.55	3.44	3.51	3.37	3.48
1991/92	3.19	3.02	3.08	2.96	3.55	3.46	3.39						

Source: Grain and Feed Market News, Agricultural Marketing Service, USDA.

Appendix table 18--Domestic and foreign wheat prices, 1980-91

Year and month	United States				Foreign		
	Farm 1/	Kansas City 2/	Gulf Ports 3/	Rotterdam 4/	Argentina 5/	Canada 6/	Australia 7/
\$/metric ton							
Calendar year:							
1980	143	159	176	213	203	192	176
1981	142	160	176	210	190	194	175
1982	129	147	161	187	166	165	160
1983	132	145	158	185	138	169	161
1984	127	140	153	180	135	166	153
1985	117	125	137	169	106	173	141
1986	100	107	117	148	88	161	120
1987	94	104	114	141	89	134	115
1988	122	134	146	176	125	177	150
1989	142	160	171	190	151	202	176
1990	110	126	137	164	107	158	145
1991	100	116	129	154	99	141	NQ
1987:							
January	93	100	110	141	82	136	110
February	95	103	114	145	92	138	112
March	94	107	116	140	90	139	115
April	97	107	115	138	88	134	115
May	98	111	120	146	88	136	119
June	90	100	110	144	86	130	111
July	85	95	106	134	84	126	107
August	87	97	108	134	84	124	109
September	93	103	114	139	89	130	115
October	96	105	116	139	95	134	118
November	99	105	116	140	95	134	118
December	99	114	126	148	95	142	126
1988:							
January	101	118	130	158	94	148	127
February	103	120	132	155	106	151	135
March	101	114	126	149	107	143	131
April	103	115	128	156	108	145	133
May	109	118	130	159	107	152	131
June	124	140	151	191	125	166	158
July	129	139	151	200	141	209	157
August	133	139	151	193	140	206	154
September	137	148	160	190	152	202	160
October	141	152	162	190	147	202	169
November	143	154	165	185	152	202	171
December	145	156	167	189	NQ	206	173
1989:							
January	148	162	175	205	NQ	213	179
February	148	161	173	207	NQ	212	178
March	150	166	179	192	NQ	210	183
April	148	164	176	192	NQ	207	179
May	147	167	177	193	NQ	209	182
June	141	161	170	187	156	204	178
July	139	157	168	185	155	204	175
August	137	155	165	181	155	196	170
September	137	153	164	180	149	188	171
October	138	156	165	183	149	190	172
November	137	159	168	183	147	191	174
December	139	161	170	191	149	194	176
1990:							
January	136	158	169	193	143	193	175
February	131	151	162	186	137	189	165
March	128	148	157	178	123	191	161
April	128	151	162	182	124	179	165
May	125	143	151	179	122	171	159
June	113	131	136	171	119	165	149
July	103	114	125	152	112	148	134
August	95	105	118	143	95	139	127
September	90	104	115	142	79	130	125
October	89	102	116	144	79	128	126
November	88	101	114	144	74	126	129
December	88	102	114	150	74	132	130
1991:							
January	89	99	112	143	73	132	NQ
February	89	101	115	143	67	134	NQ
March	93	107	121	136	87	136	NQ
April	96	109	122	143	113	137	NQ
May	97	110	123	143	108	136	NQ
June	94	109	121	147	108	135	NQ
July	91	107	118	146	100	130	NQ
August	97	113	126	149	103	137	NQ
September	103	121	133	158	107	146	NQ
October	113	133	147	171	106	156	NQ
November	119	137	150	177	107	160	NQ
December	126	148	162	186	106	157	NQ

NQ = No quotes.

1/ All wheat, U.S. season average. 2/ No.1, hard red winter, ordinary protein. 3/ No. 2, hard red winter, ordinary protein, f.o.b. vessel. 4/ U.S., no. 2 dark northern spring, 14 percent, c.i.f. 5/ f.o.b. Buenos Aires. 6/ No. 1, Canadian western red spring, 13.5 percent in-store, St. Lawrence. 7/ Australian standard wheat, f.o.b.

Appendix table 19--Wheat flour: Supply and disappearance, United States, 1960-91

Calendar year	Wheat ground	Millfeed production	Flour production	Flour and product imports 2/	Total supply	Exports		Domestic disappearance	Total population July 1	Per capita disappearance
						Flour	Products 2/			
	-----1,000----- bushels	-----1,000----- tons	-----1,000 cwt.-----						Million	Pounds
1960	582,719	4,827	255,596	141	255,737	42,135	58	213,544	180.7	118
1961	591,999	4,858	260,709	131	260,840	43,528	42	217,270	183.7	118
1962	595,353	4,876	262,403	132	262,535	47,719	22	214,794	186.5	115
1963	589,245	4,794	260,291	136	260,427	44,498	19	215,910	189.2	114
1964	591,654	2,890	261,905	142	262,047	42,328	26	219,693	191.8	115
1965	564,724	4,645	250,591	145	250,736	30,597	194	219,945	194.2	113
1966	568,673	4,619	253,176	179	253,355	33,091	178	220,086	196.5	112
1967	549,801	4,423	245,390	222	245,612	21,056	16	224,540	198.6	113
1968	569,649	4,511	254,310	233	254,543	28,068	133	226,342	200.6	113
1969	567,956	4,458	254,194	274	254,468	26,333	158	227,977	202.6	113
1970	563,714	4,409	253,094	325	253,419	26,054	14	227,351	205.1	111
1971	555,092	4,279	249,810	341	250,151	20,685	15	229,451	207.7	110
1972	557,801	4,303	250,441	477	250,918	20,335	19	230,564	209.9	110
1973	567,287	4,395	254,661	550	255,211	16,107	26	239,078	211.9	113
1974	562,962	4,483	251,097	665	251,762	14,453	33	237,276	213.9	111
1975	582,675	4,701	258,985	621	259,606	12,364	22	247,220	216.0	114
1976	618,284	4,920	275,077	604	275,681	16,064	44	259,573	218.0	119
1977	618,125	4,787	275,784	604	276,388	22,053	37	254,298	220.2	115
1978	621,321	4,860	277,950	773	278,723	22,170	43	256,510	222.6	115
1979	636,375	4,945	284,051	823	284,874	20,927	86	263,861	225.1	117
1980	628,559	4,866	282,655	904	283,559	17,378	54	266,127	227.7	117
1981	634,381	5,045	283,966	1,166	285,132	18,655	84	266,393	229.9	116
1982	653,206	5,228	290,907	1,496	292,403	20,926	154	271,323	232.2	117
1983	698,951	5,655	311,587	1,590	313,177	37,315	150	275,712	234.3	118
1984	675,271	5,426	299,832	2,005	301,837	19,933	160	281,744	236.3	119
1985	700,151	5,556	313,815	2,064	315,879	18,387	141	297,351	238.5	125
1986	737,537	5,799	326,316	2,226	328,542	25,842	123	302,577	240.7	126
1987	767,507	6,260	341,565	2,632	344,197	28,529	142	315,526	242.8	130
1988	769,699	6,163	344,154	2,696	346,850	28,169	182	318,499	245.1	130
1989	761,021	6,072	342,762	3,303	346,065	26,357	182	319,526	247.4	129
1990	797,589	6,255	359,639	3,572	363,211	18,380	273	344,558	250.0	138
1991 3/	780,458	6,240	346,431	3,558	349,989	22,267	95	327,627	252.6	130

1/ Commercial production of wheat flour, whole wheat, industrial, and Durum flour and farina reported by Bureau of Census. Production prior to 1970 includes estimate for noncommercial wheat milled. 2/ Imports and exports of macaroni and noodle products (flour equivalent). 3/ Preliminary.

Appendix table 20--Wheat production costs, United States, 1982-92

ITEM	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991 Prelim.	1992 Forecast
\$/planted acre											
Gross value of production (excluding direct government payments): 1/											
Wheat	110.32	128.52	113.97	93.52	66.06	76.21	95.89	99.83	NA	NA	NA
Wheat straw	4.37	4.45	4.48	2.48	2.06	2.18	3.78	3.45	NA	NA	NA
Total, gross value of production	114.69	132.97	118.45	96.00	68.12	78.39	99.67	103.28	NA	NA	NA
Cash expenses: 1/											
Seed	6.65	6.37	6.48	7.59	7.29	6.62	6.69	7.68	7.60	7.44	7.45
Fertilizer	16.93	17.69	17.75	15.09	12.93	11.75	14.09	16.43	16.13	16.38	16.81
Lime and gypsum	0.63	0.67	0.62	0.82	1.60	1.32	1.25	0.27	0.27	0.27	0.28
Chemicals	3.16	3.27	3.19	4.26	4.06	3.82	3.82	5.02	5.12	5.39	5.57
Custom operations	5.74	5.90	5.93	3.98	3.94	3.95	3.73	4.07	4.15	4.26	4.37
Fuel, lube, and electricity	11.77	11.06	9.54	9.93	6.74	7.56	7.37	7.96	8.57	8.52	8.83
Repairs	7.18	7.77	7.49	6.56	6.17	6.32	6.41	6.39	6.54	6.82	7.06
Hired Labor 2/	NA	0.83	0.81	2.43	2.54	2.53	2.59	4.95	5.16	5.40	5.59
Purchased irrigation water	0.32	0.33	0.34	0.25	0.22	0.20	0.20	0.20	0.20	0.21	0.21
Miscellaneous	0.37	0.38	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Technical services	0.12	0.12	0.11	0.19	0.18	0.17	0.16	0.04	0.04	0.04	0.04
Total, variable expenses	52.88	54.39	55.01	51.10	45.67	44.24	46.31	53.01	53.79	54.72	56.22
General farm overhead	7.11	8.05	8.62	5.10	4.69	6.01	6.89	5.01	5.22	5.41	5.53
Taxes and insurance	6.90	7.69	7.86	7.44	7.92	8.11	8.19	8.72	9.01	9.29	9.58
Interest	18.45	21.86	22.98	12.69	9.08	10.09	9.57	8.77	8.77	8.22	8.22
Total, fixed expenses	32.46	37.60	39.46	25.23	21.69	24.21	24.65	22.50	22.99	22.92	23.33
Total, cash expenses	85.34	91.99	94.47	76.33	67.36	68.45	70.96	75.51	76.78	77.64	79.55
Gross value of production	29.35	40.98	26.34	19.67	0.76	9.94	28.71	22.13	NA	NA	NA
Capital replacement	19.41	21.02	20.48	19.63	19.90	20.33	20.67	23.48	24.21	24.91	NA
Gross value of production less cash expenses and replacement	9.94	19.96	5.86	0.04	-19.14	-10.39	8.04	-1.35	NA	NA	NA
Economic (full ownership) costs:1/											
Variable expenses	52.88	54.39	55.01	51.10	45.67	44.24	46.31	53.01	53.79	54.72	56.22
General farm overhead	7.11	8.05	8.62	5.10	4.69	6.01	6.89	5.01	5.22	5.41	5.53
Taxes and insurance	6.90	7.69	7.86	7.44	7.92	8.11	8.19	8.72	9.01	9.29	9.58
Capital replacement	19.41	21.02	20.48	19.63	19.90	20.33	20.67	23.48	24.21	24.91	10.67
Allocated returns to owned inputs:	49.52	53.93	43.35	41.99	34.00	35.65	43.26	43.73	43.21	40.43	20.16
Operating capital	3.09	2.51	2.72	2.11	1.38	1.46	1.78	2.12	1.97	1.46	1.48
Other nonland capital	6.94	7.49	3.84	3.67	3.66	3.69	4.33	9.67	8.26	8.60	8.88
Land	29.75	34.41	29.78	30.81	23.30	24.87	31.38	23.27	23.94	20.93	NA
Labor (paid and unpaid) 2/	9.74	9.52	7.01	5.40	5.66	5.63	5.77	8.67	9.04	9.45	9.80
Total, economic (full ownership) costs	135.82	145.08	135.31	125.26	112.18	114.34	125.32	120.13	121.12	120.16	NA
Residual returns to management and risk 1/	-21.13	-12.11	-16.84	-29.26	-44.06	-35.95	-25.65	-16.85	NA	NA	NA
Harvest-period price (\$/bu.)	3.38	3.48	3.37	2.98	2.29	2.39	3.50	3.81	2.83	2.85	NA
Yield (bu./planted acre)	32.64	36.89	33.79	31.41	28.79	31.87	27.42	26.22	36.82	29.15	NA

NA = Not available.

Totals may not add because of rounding. 1/ Methods and procedure used for estimating various components of gross value of production, expenses, economic costs, and returns are outlined in "Economic Indicators of the Farm Sector: Cost-of-Production, Major Field Crops, 1989." Agriculture and Rural Economic Research Service, USDA, Coordinator Robert Dismukes. 2/ Hired labor (a cash expense) and unpaid labor separately identified beginning in 1983.

Appendix table 21--On-farm receipts of major crops, United States, 1982-90 1/

Receipts 2/	1982	1983	1984	1985	1986	1987	1988	1989	1990
Billion dollars									
Food grains	11.4	9.7	9.7	9.0	5.7	5.8	7.5	8.2	7.9
Wheat	9.9	8.8	8.6	7.9	5.0	5.0	6.4	7.3	6.8
Rice	1.5	0.9	1.1	1.0	0.7	0.7	1.1	0.9	1.1
Feed grains and hay	17.4	15.5	15.7	22.5	17.2	14.6	15.3	17.1	19.1
Corn	12.8	10.9	10.9	16.9	12.3	9.9	8.9	11.4	13.7
Oats	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2
Barley	0.8	1.0	1.1	1.0	0.8	0.8	0.9	0.8	0.8
Sorghum	1.5	1.2	1.5	2.0	1.3	1.1	1.1	1.2	1.0
Hay	2.0	2.2	2.4	2.4	2.2	2.5	3.1	3.4	3.4
Oil crops 3/	13.8	13.5	13.6	12.5	10.6	11.2	13.4	11.8	12.4
Soybeans	12.5	12.2	12.0	11.2	9.2	10.0	12.1	10.5	10.9
Peanuts	0.8	0.8	1.2	1.0	1.1	1.0	1.1	1.1	1.3
Other oil crops	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2
Cotton (incl. seed)	4.5	3.7	3.7	3.7	3.4	4.2	4.5	5.0	5.2
Tobacco	3.3	2.8	2.8	2.7	1.9	1.8	2.1	2.4	2.7
Fruits and nuts	6.8	6.1	6.7	6.9	7.3	8.1	9.2	9.3	9.3
Vegetables	8.1	8.5	9.2	8.6	8.9	9.9	9.8	11.5	11.5
Other crops 4/	7.0	7.4	8.0	8.3	9.1	10.2	10.8	11.4	12.2
Total crops	72.3	67.2	69.9	74.3	63.7	65.8	71.6	76.8	80.4

1/ Includes net Commodity Credit Corporation loans. 2/ Calendar year. 3/ Not including cottonseed. 4/ Includes sugar, seed, green house, nursery, and other miscellaneous crops.

Appendix table 22--Wheat base acres and Conservation Reserve Program by State 1/

State	Signups									Total enrolled acres to date 1-11
	1985 Farm Act			1990 Farm Act						
	Total enrolled acres 1-9	Total retired base acres 1-9	Retired wheat acres 1-9	Total enrolled acres 10	Total retired base acres 10	Retired wheat acres 10	Total enrolled acres 11	Total retired base acres 11	Retired wheat acres 11	
Alabama	519,529	198,930	104,354	18,009	8,017	2,002	16,088	8,352	2,758	553,626
Alaska	24,701	16,332	24	691	0	0	0	0	0	25,392
Arkansas	225,353	120,801	64,969	10,739	6,545	3,538	13,360	7,342	3,741	249,452
California	183,054	93,846	24,025	87	87	0	5,838	2,604	12	188,979
Colorado	1,953,042	1,119,255	803,076	2,527	1,460	1,088	14,634	8,701	6,839	1,970,203
Connecticut	10	10	0	0	0	0	0	0	0	10
Delaware	984	607	80	26	14	5	0	0	0	1,010
Florida	123,013	45,966	16,331	3,051	1,152	315	4,148	1,629	670	130,212
Georgia	663,156	358,412	179,148	13,209	7,586	3,324	16,537	9,803	4,639	692,902
Hawaii	85	0	0	592	0	0	0	0	0	677
Idaho	791,061	499,223	254,384	20,635	13,081	6,804	38,081	27,142	13,965	849,777
Illinois	633,580	372,111	112,832	32,734	18,299	6,218	79,436	46,925	18,957	745,750
Indiana	364,729	204,303	50,772	16,723	8,940	2,270	41,981	22,379	6,520	423,433
Iowa	1,970,158	1,214,889	37,089	46,726	28,829	965	110,536	67,404	2,327	2,127,420
Kansas	2,861,786	2,102,380	1,265,724	11,075	8,934	5,668	43,424	33,903	21,865	2,916,285
Kentucky	416,799	222,429	81,558	8,858	4,011	1,352	11,362	6,731	3,128	437,019
Louisiana	132,907	54,864	16,262	7,878	4,180	754	5,047	2,759	661	145,832
Maine	37,222	6,288	124	278	25	0	433	160	0	37,933
Maryland	16,059	8,358	1,587	1,638	1,036	206	1,968	1,144	170	19,665
Massachusetts	32	21	0	0	0	0	0	0	0	32
Michigan	196,305	107,254	22,079	22,623	11,911	2,432	52,413	28,463	6,893	271,341
Minnesota	1,830,672	1,228,619	390,716	27,736	17,028	5,009	59,140	40,743	16,081	1,917,548
Mississippi	726,898	250,890	137,434	39,145	16,934	4,780	43,851	17,295	6,939	809,894
Missouri	1,504,413	734,868	370,552	37,613	17,764	8,009	96,729	45,109	23,926	1,638,755
Montana	2,720,133	1,761,101	987,710	51,258	33,500	22,860	61,600	39,527	28,372	2,832,991
Nebraska	1,348,929	884,893	312,478	13,654	8,518	1,993	39,969	26,414	10,498	1,402,552
Nevada	3,123	839	225	0	0	0	0	0	0	3,123
New Hampshire	0	0	0	11	0	0	0	0	0	11
New Jersey	661	162	48	0	0	0	20	0	0	681
New Mexico	480,765	391,794	239,533	36	4	4	2,445	1,867	570	483,246
New York	54,606	22,427	2,727	3,574	995	317	3,711	1,344	363	61,891
North Carolina	137,040	64,097	23,235	4,351	1,898	644	6,388	2,451	1,031	147,779
North Dakota	3,137,199	2,089,408	1,123,219	14,849	9,593	5,284	19,518	12,611	6,650	3,171,566
Ohio	254,130	126,359	33,989	23,361	11,995	3,314	56,988	29,120	11,302	334,479
Oklahoma	1,155,450	927,347	696,612	6,473	5,160	3,456	24,731	20,265	16,280	1,186,654
Oregon	517,150	439,209	287,708	2,686	1,774	726	8,306	7,127	5,300	528,142
Pennsylvania	92,465	35,688	5,029	2,161	880	91	4,345	1,848	396	98,971
Puerto Rico	440	0	0	15	0	0	0	0	0	455
South Carolina	265,513	126,970	61,886	3,605	1,855	681	6,436	3,451	1,031	275,554
South Dakota	2,084,557	1,404,472	617,733	6,381	3,989	1,834	13,168	7,952	2,723	2,104,106
Tennessee	429,352	202,474	88,270	12,909	6,417	2,348	19,069	10,322	4,045	461,330
Texas	3,921,378	3,159,080	1,265,635	45,010	33,986	9,549	93,855	72,704	23,360	4,060,243
Utah	232,318	119,770	96,481	0	0	0	285	590	569	232,603
Vermont	187	16	0	0	0	0	6	1	0	193
Virginia	73,938	35,838	11,437	1,467	642	175	2,187	965	256	77,592
Washington	975,320	593,255	370,690	12,877	9,114	4,775	37,799	28,223	17,330	1,025,996
West Virginia	610	251	24	0	0	0	0	0	0	610
Wisconsin	604,060	292,146	13,673	37,715	19,092	1,087	64,642	32,940	1,547	706,417
Wyoming	257,022	125,171	104,338	0	0	0	588	161	143	257,610
Total	33,921,898	21,763,422	10,275,802	564,989	325,245	113,878	1,121,062	678,469	271,856	35,607,949

1/ Totals may not add because of independent rounding.

Appendix table 23--Wheat: Supply and disappearance, United States, 1910/11-1991/92

Marketing year 1/	Acreage harvested	Yield per harvested area	Production	Domestic use 2/	Exports	Ending stocks	Season-average farm price	Stocks-to-use ratio
	Million acres	Bushels	-----Million bu.-----				\$/bu.	Percent
1910/11	45.8	13.7	625.5	540.0	71.3	125.0	0.91	20.4
1911/12	49.9	12.4	618.2	554.0	81.9	110.0	0.87	17.3
1912/13	48.4	15.1	730.0	570.0	145.2	125.0	0.81	17.5
1913/14	52.0	14.4	751.1	616.0	148.0	115.0	0.79	15.1
1914/15	55.6	16.1	897.5	609.0	335.7	67.0	0.98	7.1
1915/16	60.3	16.7	1,008.6	609.0	246.2	225.0	0.96	26.3
1916/17	53.5	11.9	634.6	596.0	206.0	80.0	1.43	10.0
1917/18	46.8	13.2	619.8	556.0	132.6	40.0	2.05	5.8
1918/19	61.1	14.8	904.1	580.0	287.4	85.0	2.05	9.8
1919/20	73.7	12.9	952.1	647.0	222.0	170.0	2.16	19.6
1920/21	62.4	13.5	843.3	575.0	369.3	124.0	1.83	13.1
1921/22	64.6	12.7	819.0	579.0	282.6	96.0	1.03	11.1
1922/23	61.4	13.8	846.6	602.0	224.9	132.0	0.97	16.0
1923/24	56.9	13.3	759.5	619.0	159.9	137.0	0.93	17.6
1924/25	52.5	16.0	841.6	613.0	260.8	108.0	1.25	12.4
1925/26	52.4	12.8	668.7	585.0	108.0	97.0	1.44	14.0
1926/27	56.6	14.7	832.2	610.0	219.2	109.0	1.22	13.1
1927/28	59.6	14.7	875.1	678.0	206.3	113.0	1.19	12.8
1928/29	59.2	15.4	914.4	653.0	163.7	227.0	1.00	27.8
1929/30	63.4	13.0	824.2	616.0	153.2	291.0	1.04	37.8
1930/31	62.6	14.2	886.5	751.0	131.5	313.0	0.67	35.5
1931/32	57.7	16.3	941.5	753.0	135.8	375.0	0.39	42.2
1932/33	57.9	13.1	756.3	719.0	41.2	378.0	0.38	49.7
1933/34	49.4	11.2	552.2	628.0	37.0	273.0	0.74	41.1
1934/35	43.3	12.2	526.1	654.0	21.5	146.0	0.85	21.6
1935/36	51.3	12.2	628.2	661.0	15.9	140.0	0.83	20.7
1936/37	49.1	12.8	629.9	689.0	21.6	83.0	1.02	11.7
1937/38	64.2	13.6	873.9	697.0	107.2	153.0	0.96	19.0
1938/39	69.2	13.3	919.9	712.0	115.8	250.0	0.56	30.2
1939/40	52.7	14.1	741.2	663.0	54.3	280.0	0.69	39.0
1940/41	53.3	15.3	814.6	676.0	40.6	385.0	0.68	53.7
1941/42	55.9	16.9	942.0	667.0	35.8	631.0	0.94	89.8
1942/43	49.8	19.5	969.4	946.0	33.4	619.0	1.10	63.2
1943/44	51.4	16.4	843.8	1,237.0	51.1	317.0	1.36	24.6
1944/45	59.7	17.8	1,060.1	1,086.0	56.7	279.0	1.41	24.4
1945/46	65.2	17.0	1,107.6	965.0	318.7	100.0	1.49	7.8
1946/47	67.1	17.2	1,152.1	836.0	367.4	84.0	1.90	7.0
1947/48	74.5	18.2	1,358.9	903.0	479.8	196.0	2.29	14.2
1948/49	72.4	17.9	1,294.9	854.0	505.3	307.0	1.98	22.6
1949/50	75.9	14.5	1,098.4	800.0	308.2	425.0	1.88	38.4
1950/51	61.6	16.5	1,019.3	689.6	344.7	491.7	2.00	47.5
1951/52	61.9	16.0	988.2	694.6	485.5	329.7	2.11	27.9
1952/53	71.1	18.4	1,306.4	655.6	332.0	672.2	2.09	68.1
1953/54	67.8	17.3	1,173.1	643.7	213.6	993.6	2.04	115.9
1954/55	54.4	18.1	983.9	604.7	267.2	1,109.4	2.12	127.2
1955/56	47.3	19.8	937.1	603.9	322.2	1,130.2	1.98	122.0
1956/57	49.8	20.2	1,005.4	598.6	541.0	1,004.0	1.97	88.1
1957/58	43.8	21.8	955.7	589.7	418.5	962.2	1.93	95.4
1958/59	53.0	27.5	1,457.4	610.3	449.6	1,368.1	1.75	129.1
1959/60	51.7	21.6	1,117.7	606.9	501.8	1,384.2	1.76	124.8
1960/61	51.9	26.1	1,354.7	591.0	653.5	1,502.4	1.74	120.7
1961/62	51.6	23.9	1,232.4	604.4	715.7	1,420.6	1.83	107.6
1962/63	43.7	25.0	1,092.0	598.8	649.4	1,269.7	2.04	101.7
1963/64	45.5	25.2	1,146.8	581.5	845.6	993.5	1.85	69.6
1964/65	49.8	25.8	1,283.4	634.9	722.7	921.1	1.37	67.8
1965/66	49.6	26.5	1,315.6	725.3	851.8	660.5	1.35	41.9
1966/67	49.6	26.3	1,304.9	683.1	771.3	512.8	1.63	35.3
1967/68	58.4	25.8	1,507.6	625.8	765.3	630.2	1.39	45.3
1968/69	54.8	28.4	1,556.6	739.7	544.2	904.0	1.24	70.4
1969/70	47.1	30.6	1,442.7	764.0	603.0	982.6	1.25	71.9
1970/71	43.6	31.0	1,351.6	772.1	740.8	822.8	1.33	54.4
1971/72	47.7	33.9	1,618.6	849.3	609.8	983.4	1.34	67.4
1972/73	47.3	32.7	1,546.2	798.7	1,135.1	597.1	1.76	30.9
1973/74	54.1	31.6	1,710.8	753.4	1,217.0	340.1	3.95	17.3
1974/75	65.4	27.2	1,781.9	671.9	1,018.5	435.0	4.09	25.7
1975/76	69.5	30.6	2,126.9	725.8	1,172.9	665.6	3.56	35.1
1976/77	70.9	30.3	2,148.8	754.4	949.5	1,113.2	2.73	65.3
1977/78	66.7	30.7	2,045.5	859.0	1,123.8	1,177.8	2.33	59.4
1978/79	56.5	31.4	1,775.5	837.0	1,194.1	924.1	2.98	45.5
1979/80	62.5	34.2	2,134.1	783.1	1,375.2	902.0	3.80	41.8
1980/81	71.1	33.5	2,380.9	782.5	1,513.8	989.1	3.99	43.1
1981/82	80.6	34.5	2,785.4	847.2	1,770.7	1,159.4	3.69	44.3
1982/83	77.9	35.5	2,765.0	908.2	1,508.7	1,515.1	3.45	62.7
1983/84	61.4	39.4	2,419.8	1,113.8	1,426.4	1,398.6	3.51	55.1
1984/85	66.9	38.8	2,594.8	1,156.1	1,421.4	1,425.2	3.39	55.3
1985/86	64.7	37.5	2,424.1	1,051.5	909.1	1,905.0	3.08	97.2
1986/87	60.7	34.4	2,090.6	1,197.4	998.5	1,820.9	2.42	82.9
1987/88	55.9	37.7	2,107.7	1,086.0	1,597.8	1,260.8	2.57	47.0
1988/89	53.2	34.1	1,812.2	974.9	1,419.2	701.6	3.72	29.3
1989/90	62.2	32.7	2,036.6	991.9	1,233.3	536.5	3.72	24.1
1990/91 3/	69.3	39.5	2,736.4	1,375.4	1,067.9	865.9	2.61	35.4
1991/92 4/	57.7	34.3	1,980.7	1,217.0	1,275.0	389.6	3.00-3.10	15.6

1/ 1910/1911-1949/50 - July-June marketing year; 1950/51-1988/89 - June-May marketing year. 2/ 1941/42-1949/50-includes procurement for both civilian relief feeding and military food use. 3/ Estimate. 4/ Projected.

Appendix table 24--Quarterly government stocks activity for wheat, 1989/90-1991/92

	1989/90				1990/91				1991/92	
	June-Aug.	Sept.-Nov.	Dec.-Feb.	March-May	June-Aug.	Sept.-Nov.	Dec.-Feb.	March-May	June-Aug.	Sept.-Nov.
Million bushels										
9-month loans:										
Carryin outstanding	19.2	48.2	80.4	65.4	30.0	120.3	260.9	328.6	216.8	149.1
Loans made	42.6	47.1	17.8	4.2	113.0	164.2	124.5	3.5	67.4	64.6
Certificate exchange	0.0	0.1	0.1	0.0	0.1	0.3	0.4	0.0	1.4	0.6
Cash redemption	13.5	14.8	32.7	39.2	22.6	23.3	56.2	103.2	68.3	47.8
CCC collateral acquired	0.1	0.0	0.0	0.4	0.0	0.0	0.2	0.1	0.7	0.1
Reserve conversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	64.7	59.9
Carryout outstanding	48.2	80.4	65.4	30.0	120.3	260.9	328.6	216.8	149.1	105.3
FOR loans:										
Carryin FOR	287.0	211.4	173.6	153.6	143.9	118.8	64.6	19.1	13.7	76.1
Reserve conversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	64.7	59.9
Cash redemption	39.6	8.7	3.7	0.0	0.5	1.8	0.6	0.3	2.2	9.2
CCC collateral acquired	24.1	23.2	10.9	3.1	13.7	33.2	28.0	13.7	0.0	0.0
Certificate exchange	11.9	5.9	5.4	6.6	10.9	19.2	16.9	3.4	0.1	0.1
Carryout FOR	211.4	173.6	153.6	143.9	118.8	64.6	19.1	13.7	76.1	126.7
CCC owned:										
Carryin CCC	190.5	167.9	154.5	136.5	116.6	104.6	129.9	152.5	162.7	162.8
CCC collateral acquired	24.2	23.2	10.9	3.5	13.7	33.2	28.2	13.8	0.7	0.1
Certificate exchange	3.5	42.9	13.5	3.7	1.5	1.0	0.1	0.2	0.1	0.2
Other 1/	43.3	-6.3	15.4	19.7	24.2	6.9	5.5	3.4	0.5	2.0
Carryout CCC	167.9	154.5	136.5	116.6	104.6	129.9	152.5	162.7	162.8	160.7

1/ Includes P.L.480 exchanges for Title II, off-grade sales, domestic programs, section 416 export programs, and residual errors.

Appendix table 25--Rye: Supply, disappearance, area, and price, 1983/84-1991/92

Item	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91 1/	1991/92 2/
Million acres									
Area:									
Planted	2,707	2,971	2,543	2,334	2,428	2,374	2,014	1,625	1,671
Harvested	892	979	708	661	671	595	484	375	396
Bushels per acre									
Yield/harvested acre	30.3	33.1	28.8	28.8	29.1	24.7	28.2	27.1	24.6
Million bushels									
Supply:									
Beginning stocks	5.8	0.0	19.8	21.9	18.6	18.9	10.3	5.6	3.3
Production	27.0	32.4	20.4	19.1	19.5	14.7	13.6	10.2	9.8
Imports	1.6	0.6	2.2	1.0	1.2	0.2	0.0	3.9	5.5
Total supply	34.4	33.0	42.4	41.9	39.3	33.8	24.0	19.7	18.6
Disappearance:									
Food	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Feed and residual	11.9	3.2	10.9	13.7	10.6	11.4	9.0	7.7	6.9
Seed	4.7	4.1	3.8	3.7	3.8	3.2	3.0	3.0	3.0
Industry	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0
Total domestic	22.2	12.8	20.3	22.9	19.9	20.1	17.5	16.2	15.4
Exports	1.0	0.4	0.2	0.5	0.5	3.4	0.8	0.2	0.2
Total disappearance	23.2	13.2	20.5	23.4	20.4	23.5	18.3	16.4	15.6
Ending stocks	0.0	19.8	21.9	18.6	18.9	10.3	5.6	3.3	3.0
\$/bushel									
Prices:									
Loan rate	2.25	2.17	2.17	1.63	1.55	1.50	1.40	1.33	1.38
Season-average price	2.17	1.79	2.03	1.49	1.63	2.52	2.06	2.09	2.15
\$1,000									
Value of production	60,074	57,996	41,902	29,159	31,641	37,006	28,099	21,298	20,498

1/ Preliminary: 2/ Projected.

Appendix table 26--Rye: Production by major States, 1983-91

State	1983	1984	1985	1986	1987	1988	1989	1990	1991
1,000 bushels									
Georgia	1,470	1,760	2,070	1,785	1,540	1,890	1,610	1,320	1,300
Indiana	270	336	308	280	162	210	204	124	100
Michigan	600	588	651	713	640	650	825	580	360
Minnesota	4,960	6,650	3,300	1,600	1,200	920	1,088	868	648
Nebraska	1,265	1,392	1,242	1,035	1,150	1,375	600	750	1,000
N. Jersey	390	261	320	310	232	310	182	144	192
N. York	416	429	420	429	300	396	480	260	264
N. Carolina	440	550	665	595	600	780	525	345	500
N. Dakota	4,320	5,400	2,640	4,250	5,115	1,350	1,064	780	992
Oklahoma	780	704	828	840	360	720	532	420	665
Pennsylvania	578	578	740	630	525	684	576	496	297
S. Carolina	320	546	532	391	528	720	644	594	630
S. Dakota	8,740	10,800	4,440	4,440	5,040	2,250	3,240	1,870	1,152
Virginia	312	378	312	364	435	560	264	256	264

Appendix table 27--Wheat: Marketing year supply, disappearance, area, and price, 1983/84-1991/92

Item	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91 1/	1991/92 2/
Million acres									
Area									
Planted	76.4	79.2	75.6	72.0	65.8	65.5	76.6	77.2	69.9
Harvested	61.4	66.9	64.7	60.7	55.9	53.2	62.2	69.3	57.7
Set aside and diverted	29.8	18.3	18.8	21.0	23.9	22.5	9.6	7.5	15.3
Conservation Reserve	---	---	---	0.6	4.2	7.1	8.8	3/ 10.3	10.1
National base acreage	90.9	94.0	94.0	92.2	91.8	91.9	91.1	90.8	89.8
Bushels per acre									
Yield/harvested acre	39.4	38.8	37.5	34.4	37.7	34.1	32.7	39.5	34.3
Million bushels									
Supply									
June 1 stocks	1,515	1,399	1,425	1,905	1,821	1,261	702	536	866
Production	2,420	2,595	2,424	2,091	2,108	1,812	2,037	2,736	1,981
Imports 3/	4	9	16	21	16	23	23	36	35
Total supply	3,939	4,003	3,865	4,017	3,945	3,096	2,762	3,309	2,882
Disappearance									
Food	642	651	674	712	721	726	753	796	775
Seed	100	98	93	84	85	103	100	90	92
Feed and residual 4/	369	408	284	401	280	146	139	489	350
Total domestic	1,111	1,157	1,051	1,197	1,086	975	992	1,375	1,217
Exports 3/	1,429	1,421	909	999	1,598	1,419	1,233	1,068	1,275
Total disappearance	2,540	2,578	1,960	2,196	2,684	2,394	2,225	2,443	2,492
May 31 stocks	1,399	1,425	1,905	1,821	1,261	702	536	866	390
\$/bushel									
Prices									
Received by farmers	3.51	3.39	3.08	2.42	2.57	3.72	3.72	2.61	3.00-3.10
Loan rate	3.65	3.30	3.30	2.40	2.28	2.21	2.06	1.95	2.04
Target	4.30	4.38	4.38	4.38	4.38	4.23	4.10	4.00	4.00
\$ million									
Value of production	8,533	8,757	7,374	5,044	5,497	6,684	7,542	7,184	6,041

-- = Not applicable.

1/ Preliminary. 2/ Projected. 3/ Imports and exports include flour and other products expressed in wheat equivalent. 4/ Residual, approximates feed use and includes negligible quantities used for alcoholic beverages.

Appendix table 28--Wheat: Production by major States, 1983-91

State	1983	1984	1985	1986	1987	1988	1989	1990	1991
Million bushels									
Arkansas	72.2	58.5	61.6	18.2	33.4	34.4	56.7	52.8	49.0
Colorado	85.0	122.1	115.0	139.3 *	96.4	97.4	79.5	62.1	87.0
Idaho	94.8	91.7	81.4	72.0	81.8	85.5	75.5	91.4	99.6
Illinois	67.5	64.4	70.4	36.8	36.1	56.1	67.5	105.0 *	91.2
Kansas	458.5	448.2	431.2	433.2	336.6	366.3	323.0	213.6	472.0 *
Minnesota	126.8	79.0	120.7	142.4 *	103.7	102.6	51.7	102.5	138.6
Missouri	74.8	70.3	84.1	49.9	18.8	35.4	76.0	87.0	76.0
Montana	180.3	136.9	104.7	50.2	138.5	151.2	60.0	145.0	145.9
Nebraska	101.5	98.9	81.0	89.7	76.0	85.8	72.0	55.4	85.5
N. Dakota	324.8	194.1	284.2	323.3	292.3	269.1	103.4	242.3	385.2
Oklahoma	227.7 *	150.5	190.8	165.0	150.8	129.6	172.8	153.9	201.6
Oregon	63.5	65.6	68.9	56.0	58.4	52.9	51.8	53.8	57.6
S. Dakota	98.5	89.7	126.0	111.2	108.7	106.7	38.0	83.1	128.0 *
Texas	144.0	161.0	150.0	187.2 *	120.0	100.8	89.6	60.0	130.2
Washington	138.9	172.6 *	160.4	128.3	116.9	114.3	124.6	110.6	150.1

* Record production.

Appendix table 29--Soviet wheat: Supply and disappearance, 1960/61-1991/92

Year Beginning July 1	Supply						Disappearance					Ending stocks
	Area harvested	Yield	Pro- duction	Begin- ning stocks	Imports	Total	Domestic use			Exports	Total disap- pearance	
							Feed	Nonfeed	Total			
	1,000 ha	Mt/ha	-----1,000 metric tons-----									
1960/61	60,393	1.06	64,299	NA	585	64,884	9,685	49,179	58,864	5,020	63,884	NA
1961/62	63,000	1.06	66,483	NA	239	66,722	12,996	51,388	64,384	5,338	69,722	NA
1962/63	67,411	1.05	70,778	NA	242	71,020	8,194	56,082	64,276	5,744	70,020	NA
1963/64	64,609	0.77	49,688	NA	9,746	59,434	2,669	51,110	53,779	2,655	56,434	NA
1964/65	67,887	1.10	74,399	NA	2,222	76,621	9,198	55,226	64,424	2,197	66,621	NA
1965/66	70,205	0.85	59,686	NA	8,549	68,235	20,423	54,181	74,604	2,631	77,235	NA
1966/67	69,958	1.44	100,499	NA	3,082	103,581	16,227	55,967	72,194	4,387	76,581	NA
1967/68	67,026	1.16	77,419	NA	1,508	78,927	20,314	54,319	74,633	5,294	79,927	NA
1968/69	67,231	1.39	93,393	NA	215	93,608	27,098	58,681	85,779	5,829	91,608	NA
1969/70	66,426	1.20	79,917	NA	1,147	81,064	33,496	60,127	93,623	6,441	100,064	NA
1970/71	65,230	1.53	99,734	NA	484	100,218	38,643	62,372	101,015	7,203	108,218	NA
1971/72	64,035	1.54	98,760	NA	3,525	102,285	36,370	57,087	93,457	5,828	99,285	NA
1972/73	58,492	1.47	85,993	NA	15,590	101,583	41,344	56,939	98,283	1,300	99,583	NA
1973/74	63,155	1.74	109,784	NA	4,508	114,292	30,486	65,806	96,292	5,000	101,292	NA
1974/75	59,676	1.41	83,913	NA	2,500	86,413	33,682	59,731	93,413	4,000	97,413	NA
1975/76	61,985	1.07	66,224	NA	10,100	76,324	29,929	55,895	85,824	500	86,324	NA
1976/77	59,467	1.63	96,882	NA	4,600	101,482	28,237	64,245	92,482	1,000	93,482	NA
1977/78	62,030	1.49	92,161	NA	6,649	98,810	42,923	64,887	107,810	1,000	108,810	NA
1978/79	62,898	1.92	120,820	NA	5,142	125,962	43,000	63,462	106,462	1,500	107,962	NA
1979/80	57,682	1.56	90,200	NA	12,125	102,325	53,000	60,825	113,825	500	114,325	NA
1980/81	61,475	1.60	98,182	NA	16,000	114,182	48,000	64,682	112,682	500	113,182	NA
1981/82	59,232	1.37	81,100	NA	20,300	101,400	46,800	58,100	104,900	500	105,400	NA
1982/83	57,278	1.47	84,300	NA	20,800	105,100	43,000	57,600	100,600	500	101,100	NA
1983/84	50,800	1.53	77,500	NA	20,500	98,000	35,000	58,000	93,000	500	93,500	NA
1984/85	51,061	1.34	68,600	NA	28,100	96,700	34,700	56,500	91,200	500	91,700	NA
1985/86	50,265	1.55	78,100	NA	15,700	93,800	35,600	56,000	91,600	500	92,100	NA
1986/87	48,728	1.89	92,306	NA	16,000	108,306	44,806	58,000	102,806	500	103,306	NA
1987/88	46,684	1.78	83,312	NA	21,500	104,812	40,500	61,000	101,500	500	102,000	NA
1988/89	48,058	1.76	84,445	NA	15,500	99,945	41,445	59,000	100,445	500	100,945	NA
1989/90	47,676	1.94	92,307	NA	14,600	106,907	41,407	62,000	103,407	500	103,907	NA
1990/91	48,200	2.24	108,000	NA	14,800	122,800	53,300	66,000	119,300	500	119,800	NA
1991/92 1/	46,500	1.68	78,000	NA	23,000	101,000	49,500	56,500	106,000	500	106,500	NA

NA = Not available.
1/ Projections.

Appendix table 30--Chinese wheat: Supply and disappearance, 1960/61-1991/92

Year Beginning July 1	Supply						Disappearance					Ending stocks
	Area harvested	Yield	Pro- duction	Begin- ning stocks	Imports	Total	Domestic use			Exports	Total disap- pearance	
							Feed	Non-feed	Total			
	1,000 ha	Mt/ha	-----1,000 metric tons-----									
1960/61	26,800	0.78	20,960	4,000	1,949	26,909	400	23,507	23,907	2	23,909	3,000
1961/62	25,572	0.56	14,250	3,000	4,893	22,143	250	20,271	20,521	122	20,643	1,500
1962/63	24,075	0.69	16,665	1,500	4,892	23,057	300	18,968	19,268	89	19,357	3,700
1963/64	23,771	0.78	18,475	3,700	5,208	27,383	500	22,570	23,070	113	23,183	4,200
1964/65	25,408	0.82	20,840	4,200	5,032	30,072	550	25,707	26,257	115	26,372	3,700
1965/66	24,709	1.02	25,220	3,700	6,282	35,202	650	30,348	30,998	4	31,002	4,200
1966/67	23,919	1.06	25,280	4,200	5,025	34,505	600	29,675	30,275	30	30,305	4,200
1967/68	25,299	1.13	28,485	4,200	4,156	36,841	600	29,028	29,628	13	29,641	7,200
1968/69	24,658	1.11	27,455	7,200	3,537	38,192	600	30,391	30,991	1	30,992	7,200
1969/70	25,162	1.08	27,285	7,200	5,125	39,610	700	32,209	32,909	1	32,910	6,700
1970/71	25,458	1.15	29,185	6,700	3,661	39,546	700	31,643	32,343	3	32,346	7,200
1971/72	25,639	1.27	32,575	7,200	2,968	42,743	700	32,838	33,538	5	33,543	9,200
1972/73	26,302	1.37	35,985	9,200	5,290	50,475	800	36,470	37,270	5	37,275	13,200
1973/74	26,439	1.33	35,225	13,200	5,645	54,070	900	40,465	41,365	5	41,370	12,700
1974/75	27,061	1.51	40,865	12,700	5,746	59,311	900	40,706	41,606	5	41,611	17,700
1975/76	27,661	1.64	45,310	17,700	2,200	65,210	950	42,560	43,510	0	43,510	21,700
1976/77	28,417	1.77	50,385	21,700	3,158	75,243	1,100	47,443	48,543	0	48,543	26,700
1977/78	28,065	1.46	41,075	26,700	8,600	76,375	1,000	50,675	51,675	0	51,675	24,700
1978/79	29,183	1.84	53,840	24,700	8,047	86,587	1,200	51,687	52,887	0	52,887	33,700
1979/80	29,357	2.14	62,730	33,700	8,865	105,295	1,500	65,095	66,595	0	66,595	38,700
1980/81	29,228	1.89	55,210	38,700	13,789	107,699	1,600	74,399	75,999	0	75,999	31,700
1981/82	28,307	2.11	59,640	31,700	13,200	104,540	1,700	77,140	78,840	0	78,840	25,700
1982/83	27,940	2.45	68,420	25,700	13,000	107,120	1,700	77,720	79,420	0	79,420	27,700
1983/84	29,050	2.80	81,390	27,700	9,600	118,690	1,800	81,190	82,990	0	82,990	35,700
1984/85	29,576	2.97	87,820	35,700	7,400	130,920	2,100	90,120	92,220	0	92,220	38,700
1985/86	29,218	2.94	85,810	38,700	6,600	131,110	2,300	98,110	100,410	0	100,410	30,700
1986/87	29,616	3.04	90,040	30,700	8,500	129,240	2,400	99,140	101,540	0	101,540	27,700
1987/88	28,808	2.98	85,840	27,700	15,000	128,540	2,500	100,340	102,840	0	102,840	25,700
1988/89	28,793	2.97	85,432	25,700	15,500	126,632	2,600	101,760	104,360	0	104,360	22,272
1989/90	29,841	3.04	90,807	22,272	13,000	126,079	2,600	101,900	104,500	0	104,500	21,579
1990/91	30,753	3.19	98,229	21,579	9,500	129,308	2,700	103,329	106,029	0	106,029	23,279
1991/92 1/	30,930	3.10	96,000	23,279	15,000	134,279	5,000	105,000	110,000	0	110,000	24,279

1/ Projections.

Appendix table 31--European Community wheat: Supply and disappearance, 1960/61-1991/92 1/

Year Beginning August 1	Supply						Disappearance					
	Area harvested	Yield	Pro- duction	Begin- ning stocks	Imports 2/	Total	Domestic use			Exports 2/	Total disap- pearance	Ending stocks
							Feed	Nonfeed	Total			
	1,000 ha	Mt/ha	-----1,000 metric tons-----									
1960/61	18275	1.92	35164	7,720	14187	57,071	8991	36,967	45958	2751	48,709	8362
1961/62	17164	1.93	33121	8362	14640	56,123	8605	36,171	44776	3422	48,198	7925
1962/63	18597	2.32	43182	7925	10196	61,303	9514	37,252	46766	4322	51,088	10215
1963/64	17465	2.09	36572	10215	11206	57,993	8935	36,509	45444	4414	49,858	8135
1964/65	18257	2.29	41805	8135	10619	60,559	9669	36,776	46445	6269	52,714	7845
1965/66	18483	2.42	44654	7845	11767	64,266	10375	37,205	47580	6857	54,437	9829
1966/67	17405	2.25	39229	9829	11313	60,371	10202	35,918	46120	5841	51,961	8410
1967/68	17254	2.68	46220	8410	10577	65,207	11378	37,448	48826	7368	56,194	9013
1968/69	17619	2.65	46766	9013	13107	68,886	13066	36,383	49449	9267	58,716	10170
1969/70	17102	2.60	44491	10170	13111	67,772	15251	35,798	51049	10426	61,475	6297
1970/71	16865	2.57	43417	6297	14741	64,455	16192	36,169	52361	5979	58,340	6115
1971/72	16976	2.99	50819	6115	13298	70,232	15671	37,036	52707	9165	61,872	8360
1972/73	16718	3.06	51132	8360	14253	73,745	17852	36,721	54573	12148	66,721	7024
1973/74	16013	3.16	50542	7024	13998	71,564	14694	35,949	50643	11861	62,504	9060
1974/75	16513	3.38	55887	9060	11635	76,582	15254	37,385	52639	12369	65,008	11574
1975/76	15192	3.15	47822	11574	13410	72,806	12074	36,643	48717	14587	63,304	9502
1976/77	16187	3.04	49287	9502	11865	70,654	12578	37,341	49919	11003	60,922	9732
1977/78	14683	3.23	47407	9732	14443	71,582	12718	38,708	51426	12711	64,137	7445
1978/79	15749	3.71	58464	7445	12432	78,341	13915	37,752	51667	15408	67,075	11266
1979/80	15519	3.63	56288	11266	12790	80,344	14691	38,025	52716	17904	70,620	9724
1980/81	16314	3.96	64639	9724	11868	86,231	15146	37,798	52944	21724	74,668	11563
1981/82	16326	3.74	61046	11563	12865	85,474	15957	37,355	53312	22405	75,717	9757
1982/83	16615	4.06	67399	9757	10879	88,035	17340	36,300	53640	21967	75,607	12428
1983/84	16832	4.00	67339	12428	11700	91,467	23346	36,719	60065	22432	82,497	8970
1984/85	16952	5.13	87041	8970	13391	109,402	25687	38,462	64149	28475	92,624	16778
1985/86	16037	4.71	75563	16778	15851	108,192	26300	37,114	63414	27853	91,267	16925
1986/87	16484	4.62	76230	16925	13826	106,981	24432	36,503	60935	28160	89,095	17886
1987/88	16640	4.54	75488	17886	14221	107,595	24763	37,910	62673	28492	91,165	16430
1988/89	16271	4.82	78376	16430	13931	108,737	24808	38,832	63640	32671	96,311	12426
1989/90	16981	4.83	82037	12426	12375	106,838	23890	38,410	62300	31649	93,949	12889
1990/91	16470	5.14	84637	12889	14833	112,359	25070	38,663	63733	33789	97,522	14837
1991/92 3/	17103	5.28	90339	14837	13359	118,535	26384	38,762	65146	34610	99,756	18779

1/ Data include all 12 members of the European Community (including East Germany) for all years regardless of membership in a given year.
 2/ Includes intra-EC trade. 3/ Projections.

Appendix table 32--Canadian wheat: Supply and disappearance, 1960/61-1991/92

Year Beginning August 1	Supply						Disappearance						Ending stocks
	Area harvested	Yield	Pro- duction	Begin- ning stocks	Imports	Total	Domestic use			Exports	Total disap- pearance		
							Feed	Nonfeed	Total				
	1,000 ha	Mt/ha	-----1,000 metric tons-----										
1960/61	9,930	1.42	14,108	16,318	0	30,426	1,695	2,561	4,256	9,614	13,870	16,556	
1961/62	10,245	0.75	7,713	16,556	0	24,269	1,202	2,680	3,882	9,744	13,626	10,643	
1962/63	10,852	1.42	15,392	10,643	0	26,035	1,203	2,553	3,756	9,018	12,774	13,261	
1963/64	11,157	1.76	19,690	13,261	0	32,951	1,463	2,803	4,266	16,181	20,447	12,504	
1964/65	12,018	1.36	16,349	12,504	0	28,853	1,276	2,740	4,016	10,875	14,891	13,962	
1965/66	11,453	1.54	17,674	13,962	0	31,636	1,365	2,919	4,284	15,918	20,202	11,434	
1966/67	12,016	1.87	22,516	11,434	0	33,950	1,563	2,802	4,365	14,024	18,389	15,561	
1967/68	12,190	1.32	16,137	15,561	0	31,698	1,461	2,789	4,250	9,145	13,395	18,303	
1968/69	11,908	1.49	17,689	18,303	0	35,992	1,747	2,739	4,486	8,323	12,809	23,183	
1969/70	10,102	1.81	18,267	23,183	0	41,450	2,308	2,260	4,568	9,430	13,998	27,452	
1970/71	5,052	1.79	9,024	27,452	0	36,476	2,156	2,494	4,650	11,846	16,496	19,980	
1971/72	7,854	1.83	14,412	19,980	0	34,392	2,209	2,586	4,795	13,710	18,505	15,887	
1972/73	8,640	1.68	14,514	15,887	0	30,401	2,061	2,703	4,764	15,692	20,456	9,945	
1973/74	9,575	1.69	16,159	9,945	0	26,104	1,918	2,683	4,601	11,414	16,015	10,089	
1974/75	8,935	1.49	13,295	10,089	0	23,384	1,699	2,908	4,607	10,739	15,346	8,038	
1975/76	9,479	1.80	17,078	8,038	0	25,116	1,815	2,826	4,641	12,253	16,894	8,222	
1976/77	11,252	2.10	23,587	8,222	0	31,809	1,750	3,295	5,045	13,446	18,491	13,318	
1977/78	10,118	1.96	19,862	13,318	0	33,180	1,487	3,581	5,068	15,997	21,065	12,115	
1978/79	10,584	2.00	21,145	12,115	0	33,260	2,439	2,851	5,290	13,061	18,351	14,909	
1979/80	10,489	1.64	17,185	14,909	0	32,094	2,537	2,953	5,490	15,883	21,373	10,721	
1980/81	11,098	1.74	19,291	10,721	0	30,012	2,175	3,065	5,240	16,262	21,502	8,510	
1981/82	12,427	2.00	24,802	8,510	0	33,312	2,002	3,150	5,152	18,447	23,599	9,713	
1982/83	12,554	2.13	26,715	9,713	0	36,428	1,815	3,272	5,087	21,368	26,455	9,973	
1983/84	13,697	1.93	26,465	9,973	0	36,438	2,246	3,237	5,483	21,765	27,248	9,190	
1984/85	13,158	1.61	21,188	9,190	0	30,378	1,982	3,257	5,239	17,541	22,780	7,598	
1985/86	13,729	1.77	24,252	7,598	0	31,850	2,060	3,538	5,598	17,683	23,281	8,569	
1986/87	14,239	2.20	31,378	8,569	0	39,947	2,838	3,596	6,434	20,782	27,216	12,731	
1987/88	13,473	1.93	25,950	12,731	0	38,681	4,438	3,424	7,862	23,514	31,376	7,305	
1988/89	12,987	1.23	15,995	7,305	0	23,300	2,260	3,588	5,848	12,420	18,268	5,032	
1989/90	13,627	1.80	24,578	5,032	0	29,610	2,164	4,120	6,284	16,884	23,168	6,442	
1990/91	14,393	2.27	32,709	6,442	0	39,151	3,170	3,858	7,028	21,909	28,937	10,214	
1991/92 1/	14,515	2.26	32,822	10,214	20	43,056	3,200	3,856	7,056	24,500	31,556	11,500	

1/ Projections.

Appendix table 33--Australian wheat: Supply and disappearance, 1960/61-1991/92

Year Beginning October 1	Supply						Disappearance					Ending stocks
	Area harvested	Yield	Pro- duction	Begin- ning stocks	Imports	Total	Domestic use			Exports	Total disap- pearance	
							Feed	Nonfeed	Total			
	1,000 ha	Mt/ha	-----1,000 metric tons-----									
1960/61	5,439	1.37	7,450	1,977	0	9,427	588	1,394	1,982	6,456	8,438	989
1961/62	5,958	1.13	6,727	989	0	7,716	474	1,485	1,959	4,950	6,909	807
1962/63	6,665	1.25	8,353	807	0	9,160	405	1,648	2,053	6,148	8,201	959
1963/64	6,668	1.34	8,925	959	0	9,884	419	1,599	2,018	6,986	9,004	880
1964/65	7,252	1.38	10,037	880	0	10,917	944	1,663	2,607	7,321	9,928	989
1965/66	7,088	1.00	7,067	989	0	8,056	721	1,870	2,591	4,691	7,282	774
1966/67	8,427	1.51	12,699	774	0	13,473	601	1,859	2,460	8,497	10,957	2,516
1967/68	9,082	0.83	7,547	2,516	0	10,063	762	1,910	2,672	5,654	8,326	1,737
1968/69	10,846	1.36	14,804	1,737	0	16,541	449	2,135	2,584	6,371	8,955	7,586
1969/70	9,486	1.11	10,546	7,586	0	18,132	740	1,800	2,540	8,047	10,587	7,545
1970/71	6,479	1.22	7,890	7,545	0	15,435	653	1,972	2,625	9,145	11,770	3,665
1971/72	7,138	1.21	8,606	3,665	0	12,271	822	2,077	2,899	7,788	10,687	1,584
1972/73	7,604	0.87	6,590	1,584	0	8,174	1,239	2,089	3,328	4,281	7,609	565
1973/74	8,948	1.34	11,987	565	0	12,552	1,226	2,313	3,539	7,031	10,570	1,982
1974/75	8,308	1.37	11,357	1,982	0	13,339	1,000	2,119	3,119	8,562	11,681	1,658
1975/76	8,555	1.40	11,982	1,658	0	13,640	1,350	962	2,312	8,663	10,975	2,665
1976/77	8,956	1.32	11,800	2,665	0	14,465	1,250	1,593	2,843	9,485	12,328	2,137
1977/78	9,955	0.94	9,370	2,137	0	11,507	1,280	1,349	2,629	8,098	10,727	780
1978/79	10,249	1.77	18,090	780	0	18,870	1,250	1,281	2,531	11,693	14,224	4,646
1979/80	11,153	1.45	16,188	4,646	0	20,834	1,928	1,441	3,369	13,197	16,566	4,268
1980/81	11,283	0.96	10,856	4,268	0	15,124	2,014	1,489	3,503	9,577	13,080	2,044
1981/82	11,885	1.38	16,360	2,044	0	18,404	1,419	1,201	2,620	11,008	13,628	4,776
1982/83	11,520	0.77	8,876	4,776	0	13,652	2,441	1,646	4,087	7,280	11,367	2,285
1983/84	12,931	1.70	22,016	2,285	0	24,301	1,258	2,183	3,441	13,342	16,783	7,518
1984/85	12,078	1.55	18,666	7,518	0	26,184	1,400	1,521	2,921	14,679	17,600	8,584
1985/86	11,736	1.38	16,167	8,584	0	24,751	1,350	1,510	2,860	16,026	18,886	5,865
1986/87	11,135	1.45	16,119	5,865	0	21,984	1,500	1,073	2,573	15,639	18,212	3,772
1987/88	9,063	1.36	12,369	3,772	0	16,141	1,865	1,676	3,541	9,850	13,391	2,750
1988/89	8,903	1.58	14,060	2,750	0	16,810	950	1,885	2,835	11,375	14,210	2,600
1989/90	9,004	1.58	14,214	2,600	0	16,814	1,000	2,066	3,066	10,713	13,779	3,035
1990/91	9,236	1.63	15,068	3,035	0	18,103	1,400	2,600	4,000	11,760	15,760	2,343
1991/92 1/	7,800	1.28	10,000	2,343	0	12,343	1,000	2,500	3,500	6,800	10,300	2,043

1/ Projections.

Appendix table 34--Argentine wheat: Supply and disappearance, 1960/61-1991/92

Year Beginning December 1	Supply						Disappearance						Ending stocks
	Area harvested	Yield	Pro- duction	Begin- ning stocks	Imports	Total	Domestic use			Exports	Total disap- pearance		
							Feed	Nonfeed	Total				
	1,000 ha	Mt/ha	-----1,000 metric tons-----										
1960/61	3,599	1.10	3,960	1,192	0	5,152	135	3,159	3,294	1,094	4,388	764	
1961/62	4,421	1.29	5,725	764	0	6,489	134	3,395	3,529	2,717	6,246	243	
1962/63	3,745	1.52	5,700	243	0	5,943	138	3,505	3,643	1,796	5,439	504	
1963/64	5,676	1.58	8,940	504	0	9,444	143	3,628	3,771	3,460	7,231	2,213	
1964/65	6,135	1.84	11,260	2,213	0	13,473	146	3,700	3,846	6,287	10,133	3,340	
1965/66	4,601	1.32	6,079	3,340	0	9,419	139	3,519	3,658	5,586	9,244	175	
1966/67	5,214	1.20	6,247	175	134	6,556	155	3,923	4,078	2,233	6,311	245	
1967/68	5,812	1.26	7,320	245	35	7,600	167	4,226	4,393	2,199	6,592	1,008	
1968/69	5,837	0.98	5,740	1,008	390	7,138	144	3,650	3,794	2,494	6,288	850	
1969/70	5,191	1.35	7,020	850	0	7,870	181	4,587	4,768	2,322	7,090	780	
1970/71	3,701	1.33	4,920	780	0	5,700	31	4,025	4,056	969	5,025	675	
1971/72	4,315	1.32	5,680	675	0	6,355	29	4,327	4,356	1,629	5,985	370	
1972/73	4,965	1.39	6,900	370	493	7,763	54	4,247	4,301	3,193	7,494	269	
1973/74	3,958	1.66	6,560	269	0	6,829	50	4,171	4,221	1,582	5,803	1,026	
1974/75	4,233	1.41	5,970	1,026	0	6,996	189	4,309	4,498	1,784	6,282	714	
1975/76	5,270	1.63	8,570	714	0	9,284	982	4,398	5,380	3,162	8,542	742	
1976/77	6,428	1.71	11,000	742	0	11,742	542	3,700	4,242	5,900	10,142	1,600	
1977/78	3,910	1.46	5,700	1,600	0	7,300	200	4,149	4,349	1,775	6,124	1,176	
1978/79	4,685	1.73	8,100	1,176	0	9,276	100	3,993	4,093	4,080	8,173	1,103	
1979/80	4,787	1.69	8,100	1,103	0	9,203	200	3,820	4,020	4,755	8,775	428	
1980/81	5,023	1.55	7,780	428	0	8,208	150	3,800	3,950	3,845	7,795	413	
1981/82	5,926	1.40	8,300	413	0	8,713	150	4,150	4,300	3,638	7,938	775	
1982/83	7,320	2.05	15,000	775	0	15,775	200	4,649	4,849	9,870	14,719	1,056	
1983/84	6,880	1.85	12,750	1,056	0	13,806	150	4,550	4,700	7,847	12,547	1,259	
1984/85	5,950	2.22	13,200	1,259	0	14,459	75	4,525	4,600	9,408	14,008	451	
1985/86	5,270	1.61	8,500	451	0	8,951	75	4,325	4,400	4,300	8,700	251	
1986/87	4,982	1.79	8,930	251	0	9,181	0	4,526	4,526	4,435	8,961	220	
1987/88	4,789	1.84	8,800	220	0	9,020	100	4,400	4,500	3,705	8,205	815	
1988/89	4,700	1.79	8,400	815	0	9,215	100	4,600	4,700	4,034	8,734	481	
1989/90	5,450	1.86	10,150	481	0	10,631	100	4,440	4,540	6,060	10,600	31	
1990/91	5,700	1.84	10,500	31	0	10,531	200	4,600	4,800	5,430	10,230	301	
1991/92 1/	4,500	1.89	8,500	301	0	8,801	100	4,400	4,500	4,100	8,600	201	

1/ Projections.

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