Wheat Situation and Outlook Yearbook. Market and Trade Economics Division, Economic Research Service, U.S. Department of Agriculture, WHS-2000, March 2000.

Contents

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Summary

The Wheat Yearbook presents preliminary projections for 2000/2001 that were released at the 2000 Agricultural Outlook Forum on February 24-25, 2000.

Wheat farmers responded to lower prices and unfavorable planting conditions, particularly in parts of the central and southern Plains, by reducing winter wheat plantings for the 2000 crop by 515,000 acres, down 1 percent from a year earlier and the lowest since 1972. Spring wheat (including durum) plantings are expected to fall too, as farmers evaluate the relative profitability of competing crops such as barley, soybeans, and minor oilseeds.

If yields equal the average for the last 5 years, total wheat production for 2000/01 could decline about 8 percent. Larger beginning stocks will be partially offsetting, however, leaving the total supply about 4 percent below the current marketing year that ends on May 31. Total use is forecast down slightly because of smaller feed and residual use. However, the smaller use will exceed production, and ending stocks will decline. Even so, stocks will remain relatively large and the average price received by farmers will likely be below $3.00 again in 2000/01 (June/May).

For 1999/2000, U.S. wheat supplies dropped slightly to 3,343 million bushels. Total disappearance is forecast to decline about 3 percent from 1998/1999, the result of lower projected feed and residual use. Use will trail production, and stocks will approach 1 billion bushels. The season average farm price is projected to range between $2.45 and $2.55 per bushel.

U.S. exports in 1999/2000 are forecast up slightly to 1,050 million bushels. Another year of disappointing exports is projected because of strong competition from foreign exporters. Global imports are up slightly, but the U.S. market share will decline this year.

This issue contains three special articles: (1) "Russia's Wheat Production and Trade: Recent Performance and Future Prospects," (2) "EU Enlargement: Impacts on CEE Wheat Markets," and (3) "The Next Round of Agricultural Trade Negotiations: Background and Issues for the U.S. Wheat Sector."

THE WHEAT SITUATION AT A GLANCE

All wheat: Supply and disappearance 1/

Marketing year beginning June 1	1995/96	1996/97	1997/98	1998/99 2/	1999/00 3/
	Million bushels				
Beginning stocks	507	376	444	722	946
Production	2,183	2,277	2,481	2,547	2,302
Imports	68	92	95	103	95
Total supply	2,757	2,746	3,020	3,373	3,343
Domestic					
Food	883	891	914	907	905
Seed	103	102	92	81	91
Feed & residual	154	308	251	397	300
Domestic use	1,140	1,301	1,257	1,384	1,296
Exports	1,241	1,002	1,040	1,042	1,050
Total disappearance	2,381	2,302	2,298	2,427	2,346
Ending stocks	376	444	722	946	997

Wheat by class: Supply and disappearance 1/

Marketing year beginning June 1	Hard red winter	Hard red spring	Soft red winter	White	Durum	Total
	Million bushels					
1998/99: 2/						
Beginning stocks	307	220	80	90	26	722
Production	1,179	486	443	301	138	2,547
Imports	1	58	0	10	33	103
Total supply	1,487	765	523	401	197	3,373
Domestic use	599	284	282	116	103	1,384
Exports	453	247	105	198	40	1,042
Total disappearance	1,052	532	387	314	143	2,427
Ending stocks	435	233	136	87	55	946
1999/2000: 3/						
Beginning stocks	435	233	136	87	55	946
Production	1,055	448	453	247	99	2,302
Imports	1	55	0	7	32	95
Total supply	1,491	736	589	341	186	3,343
Domestic use	539	294	283	96	84	1,296
Exports	485	215	160	150	40	1,050
Total disappearance	1,024	510	443	246	124	2,346
Ending stocks	467	226	147	94	63	997

1/ Includes flour and products imported and exported in wheat equivalent units. ERS estimates of domestic use. 2/ Estimated. 3/ Projected.
Source: Economic Research Service, USDA.

Winter Wheat Acreage Seeded Is the Lowest Since 1972/73

Winter wheat plantings declined 1 percent from a year earlier to their lowest level since 1972/73. Spring wheat (including durum) plantings are likely to fall too, as farmers evaluate the relative profitability of competing crops. USDA will release its first official forecast of the 2000 crop on May 12, 2000.

The first indication of winter wheat plantings for 2000/01 was in line with expectations. Thus, new-crop price prospects largely depend on yield prospects. However, price strength will be limited by continued large U.S. and global supplies and weak demand.

Winter Wheat Acreage Drops for Fourth Year in a Row

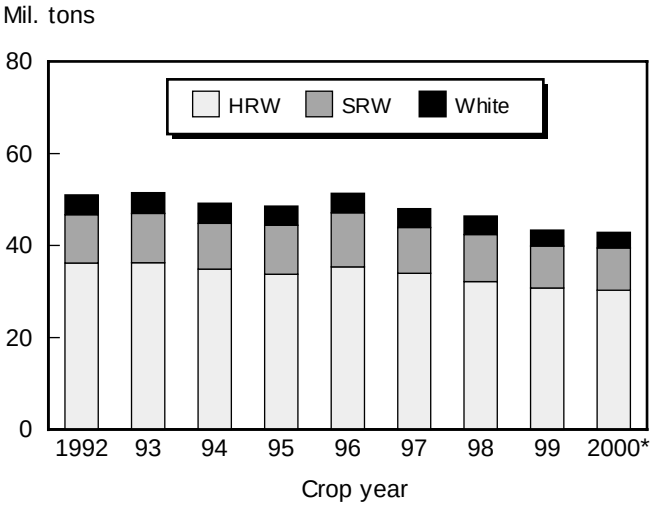
The *Winter Wheat Seedings* report released by the National Agricultural Statistics Service (NASS) on January 12 provides the first indication of wheat plantings for 2000/01. Planted winter wheat area for the 2000 winter wheat crop is estimated at 42.9 million acres, the lowest since 1972/73 and down 1 percent from 1999 (figure 1). The seeding area was within the range of analysts' expectations (42.5-44.0 million acres) but slightly below the average expectation of 43.0 million.

Apparently, farmers responded to low prices and unfavorable weather conditions in some areas last fall by planting fewer acres to wheat. While some of the area that had been seeded to winter wheat for the 1999 crop will be planted to other crops such as oilseeds and feed grains, some likely will be left fallow, especially in the drier sections of the southern Great Plains. A notable exception to the decline in winter wheat acreage occurred in Montana, where the area seeded rebounded from the low 1998/99 level and is up 450,000 acres, or 43 percent.

Hard Red Winter (HRW) wheat seeded area is estimated at 30.293 million acres, down 559,000 acres or 1.8 percent from 1999. Most HRW States have a smaller seeded area this year. Montana is the most notable exception. Area is down throughout the southern Plains. Texas led the drop with a reduction of 400,000 acres, followed by Oklahoma (down 300,000) and Kansas (down 200,000). Dry weather during the planting season is believed to be a contributing factor in the southern Plains States, but expectations of continued low prices also played an important role.

Figure 1

Winter wheat planted area down again in 2000



*Preliminary.
Source: National Agricultural Statistics Service, USDA.

The Soft Red Winter (SRW) area, pegged at 9.184 million acres, is up 53,000 acres or 0.6 percent from 1999. Seeded area is down in the Corn Belt States, likely because of dry conditions last fall. Acreage is up in the Delta States, and Arkansas led the way with a 19-percent increase of 180,000 acres. Much of this increase is probably acres that will be doubled cropped with soybeans next summer.

White Winter (WW) wheat seeded area totals 3.439 million acres, down only 9,000 acres from last year. In the major producing States in the Pacific Northwest, area seeded is up 16,000 acres in Idaho, up 19,000 in Oregon, but down 45,000 in Washington. These three States will account for an estimated 87 percent of the WW wheat crop in 2000. In the two major eastern white wheat States, a 29,000-acre increase in New York is offset by a 31,000-acre decline in Michigan. The two States will account for an estimated 10 percent of the WW wheat crop in 2000.

Dry Weather During Fall and Winter Has Affected Winter Wheat Crop Conditions in the Plains

While the first national weekly *Crop Progress* report for 2000 will not be issued until April 3, 2000, various States have been reporting crop conditions in recent weeks. On March 26, 50 percent of the Kansas winter wheat crop was rated good to excellent versus 75 percent a year earlier. Good to excellent conditions in other States on March 26 were: Colorado, 76 percent; Nebraska, 62 percent; Oklahoma, 84 percent; Texas, 9 percent; and South Dakota, 55 percent. Benefical rains during the late winter and early spring have greatly improved crop conditions in Kansas, Nebraska, and Oklahoma. On February 28, Montana reported 39 percent. Lack of snow cover during the winter caused 34 percent of the Montana winter wheat crop to sustain moderate to heavy wind damage. Many of these acres may be replanted to spring wheat.

According to the last weekly *Crop Progress* report released by NASS on November 29, 1999, 43 percent of the winter wheat crop was rated good to excellent, 29 percentage points below the ratings a year earlier. At the end of November 1999 only 36 percent of the Kansas crop was reported in good to excellent condition, compared with 73 percent the previous year. In Nebraska, 45 percent of the crop rated good to excellent, compared with 80 percent the previous year. In Oklahoma, 43 percent of the crop rated good to excellent, compared with 85 percent the previous year. In Texas, only 14 percent of the crop rated good to excellent, compared with 46 percent the previous year.

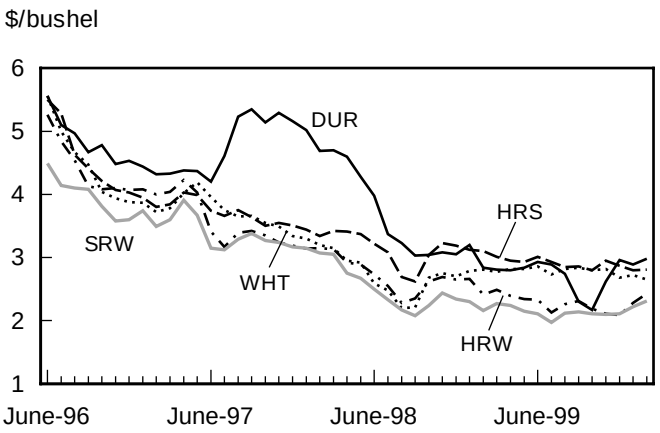
Spring Wheat Acreage Prospects

Producers of durum and other spring wheat were surveyed around March 1 to determine prospective plantings for 2000. Current expectations are that seedings will be lower than the 19.4 million acres seeded in 1999. Current farm price relationships for the various classes of wheat favor the shifting of some area from durum to spring wheat and other crops (figure 2). Farm prices of durum have dropped dramatically in response to large supplies, poor quality, and weak export demand. Also, soil moisture supplies and the condition of the winter wheat crop later in the spring will influence planting decisions in Montana and other spring wheat producing States.

Expectations concerning the relative market prices for corn, soybeans, and other field crops during 2000/01 will also affect planting decisions in the spring wheat area of the northern Plains. Average farm prices for wheat, corn, and soybeans have been trending down during the last 3 marketing years (figure 3). Weather conditions this spring will also affect cropping decisions, with dry weather likely to encourage producers to persevere with wheat and not risk alternate, more drought-susceptible crops.

Figure 2

Durum farm price rebounds following record low in October 1999

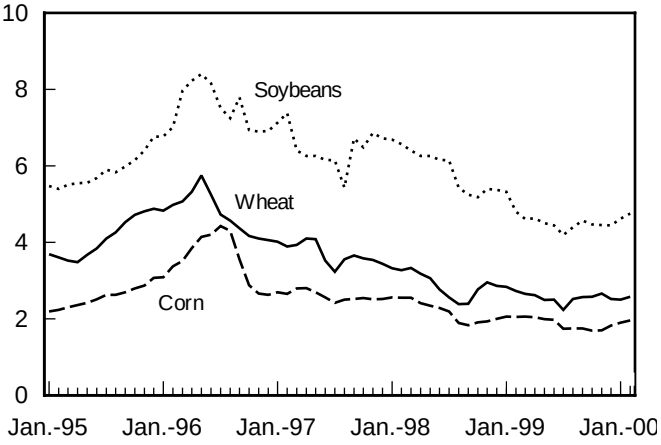


Average price received by farmers for each wheat class in major production regions.

Source: Economic Research Service, USDA.

Figure 3

Relative prices of competing crops at the farm level



Source: National Agricultural Statistics Service, USDA.

Wheat Supply and Ending Stocks Likely Down in 2000/01

Lower production due to reduced acreage and yields in 2000/01 is somewhat offset by larger carryin stocks. Total use of wheat is expected to remain weak as feed and residual use will likely decline because of low corn prices. Given the flat use, the smaller supplies will translate into a decline in ending stocks. The tighter supply/use balance is expected to boost prices.

The following supply and use projections for 2000/01 were released at the 2000 Agricultural Outlook Forum on February 25, 2000. The first official U.S., world, and country-specific supply and use projections will be in the May 12 World Agricultural Supply and Demand Estimates report.

Wheat Plantings for the 2000 Crop Are Likely Down Again

Wheat plantings for the 2000 crop are likely to decline for the fourth consecutive year as producers continue to favor oilseeds in many parts of the Corn Belt and Plains States (figure 4).

All Wheat Production Is Projected Down from 1999

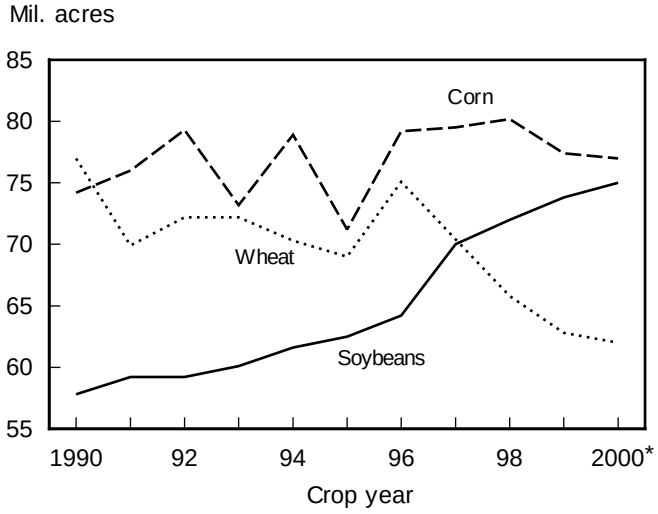
Supply prospects for wheat in 2000/01 are affected by the expected decline in planted area and dryness in parts of the major hard red winter wheat region, especially in the southern and central Plains. Until recently, much of these regions had been dry for several months, and it is uncertain how much the yield prospects will recover due to the recent rains. In recent years, USDA has used the average yields for the 3 previous years as the yield forecast for the new crop. This would generate a forecast of 41.8 bushels per acre for the 2000 crop. Using a 5-year average yield, including 2 years with weather-reduced yields, lowers the projected yield to just over 39 bushels per acre (figure 5). Using the 62 million acres planted and the average of the harvested-to-planted ratios during the previous 5 years gives a projected harvested area of 54 million acres. Thus, all wheat production is projected at 2,120 million bushels, down 8 percent from 1999.

Tighter Supply/Use Balance Is Expected To Boost Prices

The lower U.S. production projected for 2000/01 is somewhat offset by larger carryin stocks. With wheat imports

Figure 4

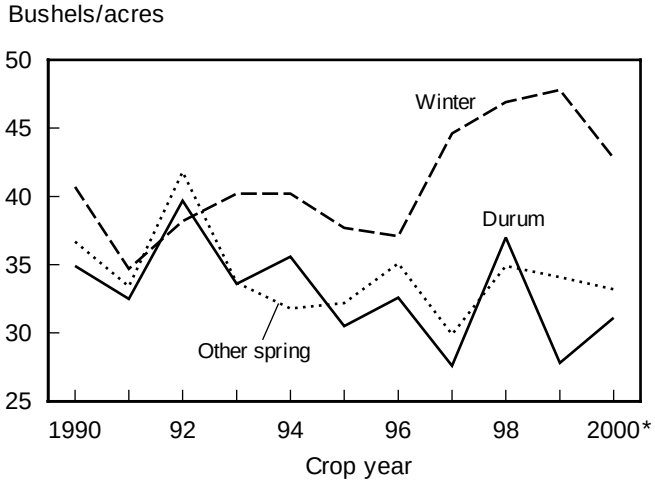
U.S. wheat acreage likely down in 2000



*USDA projections, Agricultural Outlook Forum, February 24-25, 2000.
Source: National Agricultural Statistics Service, USDA.

Figure 5

U.S. wheat yield likely down in 2000



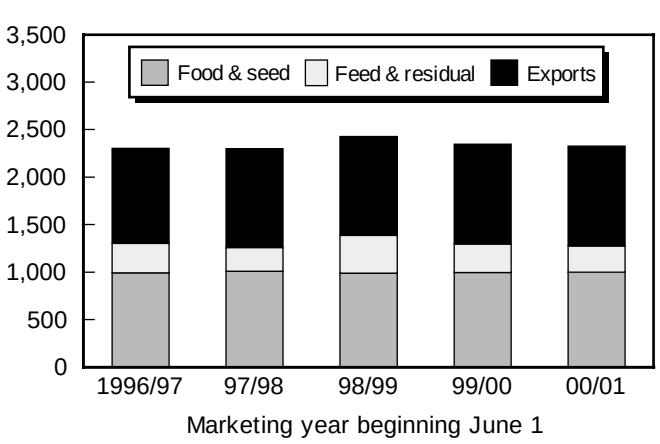
* 1/5-year average by type of wheat. USDA projections, Agricultural Outlook Forum, February 24-25, 2000.
Source: National Agricultural Statistics Service, USDA.

near last year's level, total U.S. wheat supplies are projected at 3,217 million bushels, down nearly 4 percent.

Total U.S. wheat use in 2000/01 is expected to remain weak (figure 6). Food use will continue to show some growth, but feed and residual use will likely decline because of low corn prices. Total domestic use of 1,275 million bushels is projected down nearly 20 million bushels from a year earlier.

Figure 6

Disappearance down slightly in 2000/01



1999/2000 forecast. 2000/01 is a USDA projection, Agricultural Outlook Forum, February 24-25, 2000.
Source: Economic Research Service, USDA.

Given expectations of continued larger supplies in major exporting countries and sluggish import demand, U.S. wheat exports are projected to remain flat in 2000/01 at 1,050 million bushels.

The relatively flat use prospects and the smaller supplies will cause ending stocks to decline more than 100 million bushels to 892 million in 2000/01. This level would represent 38.4 percent of projected use, down from the 42.5 percent forecast for the current year. The tighter supply/use balance is expected to boost 2000/01 prices about $0.25 per bushel above 1999/2000 prices to near $2.75 per bushel.

The export projections for 1999/2000 and 2000/01 do not include the planned fiscal year 2000 (October 1999 - September 2000) donations of approximately 3 million tons of food aid announced on February 10, 2000. Commodities to be donated include wheat and wheat flour, soybeans and soy products, rice, and milk powder. About 75 percent of the donations are expected to be wheat and flour (2.25 million metric tons or 83 million bushels). At this time, it is uncertain if the wheat/flour component will be shipped in the 1999/2000 marketing year or the 2000/01 marketing year. If purchases for these donations occur mostly in the 2000/01 marketing year, wheat prices in 2000/01 could increase about $0.10 per bushel.

Balance Between World Wheat Production and Consumption Unclear for 2000/01

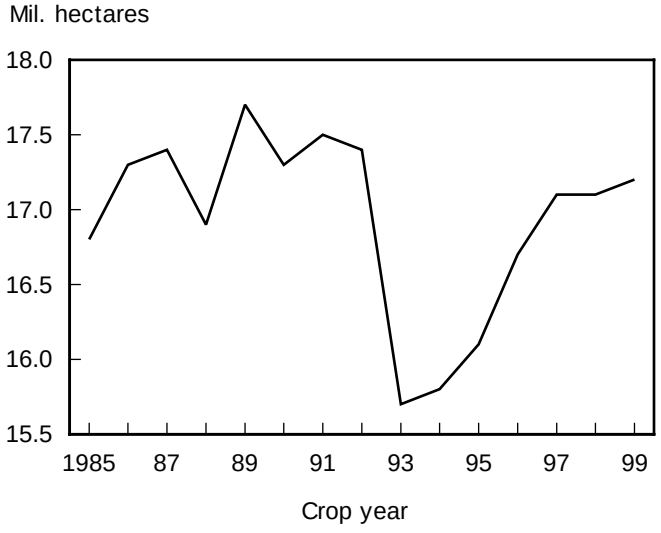
Whether world wheat production increases or decreases in 2000/01 will depend on yields that, in turn, depend on weather. Winter wheat in the Northern Hemisphere has been planted, and while some regions increased area, others reduced area. Low world wheat prices limit the incentives to increase production. More favorable weather than last year could increase global production, but widespread drought or other production problems could cause global production to decline for the third straight year. Wheat use is likely to continue to grow slowly, with most of the increase driven by population growth supporting human consumption.

Global Production May Grow Modestly in 2000/2001

USDA will issue its first projections for 2000/01 global supply and demand on May 12. However, because most winter wheat has already been planted, there are early indications that world production will increase modestly if weather is generally favorable. But there are already a number of "problem areas" and much can happen in coming months.

Reduced area planted in China, India, and the United States may be offset by increases elsewhere. One of the largest increases in plantings is expected in the EU. The EU grain trade association, Coceral, estimated that winter wheat area planted increased 10 percent last fall (fig. 7). Other analysts have forcast smaller increases, but there is little doubt that wheat area will be up sharply. The set-aside requirement remains at 10 percent, but expected wheat returns are more attractive than those for oilseeds or barley. Moreover, durum area in Southern Europe is reportedly up. Except for Spain and Portugal, weather conditions have been favorable to date and the EU could have a record wheat crop. Increased production in 2000/01 will be partly offset by lower beginning stocks, but EU wheat supplies are expected to remain large.

Figure 7
EU wheat area, 1985-99



Source: Foreign Agricultural Service, USDA.

Winter grain plantings in Russia reportedly increased more than 8 percent because of increased domestic prices and more favorable planting conditions. Also weather conditions to date have generally been favorable and less winterkill than average is expected. Planting conditions in Ukraine were poor last fall and combined with limited availability of inputs, financial uncertainty, and potential restructuring of land ownership, led to reduced winter grain seedings. Even with reduced area, Ukraine's wheat production may increase if yields rebound from last year's drought-devastated levels.

In Eastern Europe wheat production is likely to increase. Winter wheat area reportedly rose in Hungary, Romania, Yugoslavia, Croatia, and the Czech Republic, because of better planting conditions and somewhat higher prices. However, area planted in Poland reportedly declined slightly. Increased wheat production in most of the region would likely lead to larger exports in 2000/01.

Iran is expected to be the largest importer in 2000/01 because production was devastated by drought. Expectations of a rebound from last year's low production have been hurt by continued dryness this year. Across most of Iran, rainfall totals from November 1999 through February 2000 were

even worse than the year earlier. Iran's production, stocks, imports, and consumption are critical unknowns underlying world wheat supply and demand in 2000/01. However, across most of the rest of the Middle East, rains arrived somewhat late this winter, but eventually arrived, so yields are expected to increase in places like Israel, Jordan, and Syria, although eastern Syria is dry.

In Turkey, government price supports remain high, but area planted reportedly declined slightly. An increase in yields is likely, as parts of Turkey suffered drought in 1999/2000, but rainfall so far this season has been very favorable. Even if production declines it will still be very large. The government has agreed to sell at least some wheat into the domestic market at the same price as in the international market. With producer prices still well above world levels, large subsidized exports and domestic sales would strain the Turkish government's finances and contravene agreements with the International Monetary Fund. So it is not clear what will happen.

In North Africa, wheat production may rebound from last year's serious drought. However, early dryness delayed winter wheat planting in Morocco, and continued dryness has reduced crop prospects in Morocco, Algeria, and Tunisia. Widespread moisture in the coming weeks is critical if these countries are to avoid another year of poor crops. Imports by the region will remain large.

India is one of the first major producers to harvest in 2000/01, with most of the harvest beginning in March. Wheat area is expected to be down as some farmers switch back to oilseeds and coarse grains after switching to wheat last year. While rainfall has been below normal in some regions, most of the wheat crop is irrigated, so little change in yields is expected. Large stocks make increased imports less likely. However, consumption is large and growing, and domestic prices are above world levels, so exports are also likely to be minimal.

Pakistan sharply increased procurement prices and the availability of inputs, boosting production prospects. With beginning stocks down, Pakistan's imports will not only depend on 2000 production, but retail prices and how much flour is allowed to be exported to Afghanstan.

In China, the world's largest wheat producer, the National Bureau of Statistics estimated that winter wheat area planted last fall declined about 6 percent because of reduced government price supports and stricter quality standards. However, growing conditions have been generally favorable through March, and good yields could offset much of the area drop. The size of China's production and stocks is a major source of uncertainty about prospects for wheat trade in 2000/01.

The size of China's wheat stocks is considered a state secret. USDA forecasts that China's wheat stocks will decline for a second year in 1999/2000, but not by very much, as production was nearly as large as consumption. Import demand depends not only on the size of the 2000 crop and stocks, but also on the quality of the new crop and stocks. Many analysts believe China will increase wheat imports from the 0.7-million-ton historical low forecast for 1999/2000. But by how much is very uncertain.

Spring wheat producers in the Northern Hemisphere, such as Canada and Kazakstan, and Southern Hemisphere producers, such as Argentina and Australia, have not yet planted wheat for 2000/01. However, unless wheat prices increase sharply during March through June 2000, most of these countries will not significantly increase wheat area, and it is likely that some will reduce plantings.

Large wheat stocks among the major exporters, especially the United States, EU, and Canada, are expected to limit price increases during this period unless a major weather event reduces production prospects. However, Agriculture and Agri-Food Canada reports that wheat area is likely to increase because of low oilseed prices and rotation needs. With increased exports in 1999/2000, Kazakstan is expected to increase area planted in 2000/01. However, last year's exceptional yield is unlikely to be repeated, so production will decline. Strong barley prices are likely to lead to expanded area and reduce wheat planting slightly in Australia, making a repeat record crop unlikely. However, as planting time approaches, most areas have received good rains, and farmers could respond to the favorable moisture by expanding area this spring.

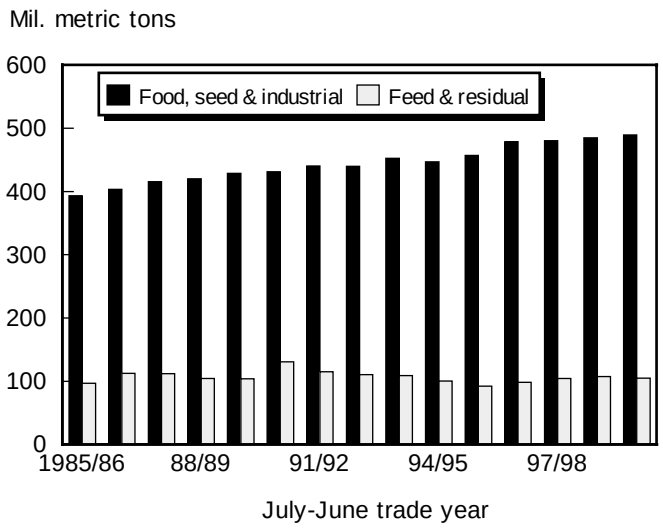
Modest Consumption Growth Expected

In 2000/01, world wheat consumption is likely to increase more than it did in 1999/2000. Consumption in 1999/2000 is currently forecast up less than 3 million tons, as a decline in wheat feed and residual use partly offsets an increase in food and seed use. In 2000/01, another decline in world wheat feed and residual is unlikely because of expected larger wheat production in the EU, Eastern Europe, and possibly the former Soviet Union, regions that traditionally feed a significant portion of the wheat they produce. Global food use is expected to increase 4 million tons in 1999/2000, somewhat less than the average growth of 6 million tons during the last decade (figure 8). Something close to average or trend growth in global food use can be expected in 2000/01 because nothing has happened to make growth exceptionally fast or slow.

World wheat trade in 2000/01 is likely to be boosted by steady long-term growth in demand, based on demand for

Figure 8

World wheat consumption, 1985/86-1999/2000



Source: Foreign Agricultural Service, USDA.

food, underpinned by increasing populations in importing countries of Latin America, North Africa, the Middle East, and parts of Asia. Continued dryness in Iran and North Africa would support world trade in 2000/01. China is likely to increase wheat imports, but Pakistan's imports are uncertain. While Russia will receive less wheat as food aid in 2000/01, aid shipments to other destinations will remain strong because a portion of the fiscal 2000 U.S. food aid will not be shipped until the 2000/01 wheat marketing year.

Major exporters' wheat supplies will remain large in 2000/01. U.S. stocks may largely offset lower production. EU production increases are likely to more than offset lower stocks. Australia and Canada are expected to start the year with slightly higher stocks, limiting any reduction in supplies. For Australia, the record wheat crop in 1999/2000 means that old-crop supplies will still be available for export during the first part of July/June 2000/01. Continued large exporters' supplies in 2000/01 are likely to encourage trade expansion and limit price increases.

Prices Weaken Under Weight of Large Supplies in 1999/2000

U.S. wheat production declined in 1999/2000 because of a reduction in harvested acres and average yields. Favorable weather in the southern and central Plains States pushed winter wheat yields to a record high while durum and other spring wheat yields declined. Larger stocks partially offset the decline in total production, and the season average price received by farmers is expected to drop for the fourth year in a row.

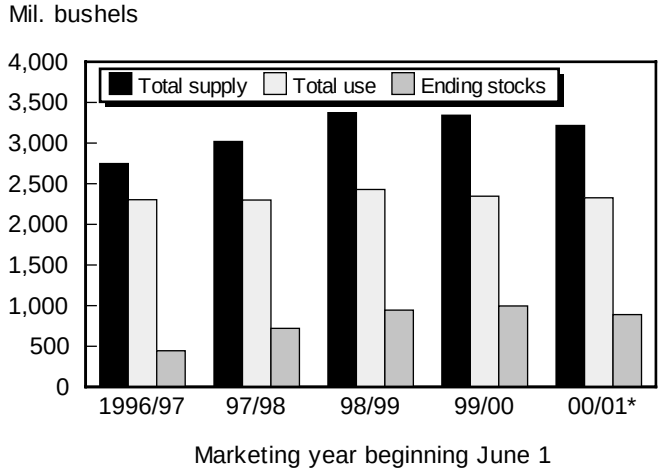
U.S. Wheat Supplies Down, but Prices Down Again in 1999/2000

U.S. wheat production is estimated at 2.3 billion bushels in 1999/2000, down almost 10 percent from 1998/99 (table 1). With larger beginning stocks, the U.S. wheat supply in the 1999/2000 (June-May) marketing year is forecast to drop only 1 percent from 1998/99, when supply was the largest since 1987/88 (figure 9).

The average farm price for all wheat dropped to $2.23 per bushel during July 1999 because of increasing production prospects in the winter wheat belt and large supply prospects in competing exporting countries. Average farm prices rebounded to $2.52 in August, and have ranged between $2.50 and $2.66 since then. The preliminary farm price of all wheat in February 2000 was $2.58 per bushel, down from $2.66 reported for November and 15 cents below a year earlier. The weak prices reflect large U.S. and global supplies, weak global demand, and aggressive pricing by Australia and the European Union (EU).

Figure 9

Wheat supply and ending stocks likely down in 2000/01



* USDA projections, Agricultural Outlook Forum, February 24-25, 2000.
Source: Economic Research Service, USDA.

The surprisingly low December 1 corn stocks and the cut in 1999 corn production indicated in USDA's *Grain Stocks* and *Crop Production: 1999 Summary* report released in January 2000 helped lift price expectations temporarily. The July 2000 futures contract in Kansas City increased from $3.005 on January 11 to $3.155 on January 24. Prices remained firm and rose to $3.23 on February 10 because of concerns about the drought in the Southwest during the winter and below normal crop ratings in Kansas, Oklahoma, and Texas. However, improved weather conditions, large supplies, and weak demand caused prices to slide again.

Prices will remain sluggish in the coming months in the absence of fresh export demand or a serious weather-related change in crop conditions. The season-average farm price in 1999/2000 is forecast at $2.45 - $2.55 per bushel, significantly below the $2.65 received by farmers in 1998/99, and the record $4.55 in 1995/96 (figure 10). There will be continued pressure on cash and near-term futures prices as stocks remain large compared with recent years. U.S. ending stocks are projected to total 997 million bushels, the highest since 1987/88.

The average price received by farmers for all wheat during the first 8 months of the marketing year was $2.51, down from a $2.69 average during the same period last year. Sales during the first 8 months of the marketing season averaged about 78 percent of the accrued total during the previous 5 years. If the percentage of the 1999 crop sold during this period is the same, prices would have to average between $2.35 and $2.96 the rest of the marketing year for the season-average price to be within the projected range of $2.45-$2.55.

Record Winter Wheat Yield

Winter wheat production accounted for about 74 percent of U.S. output in 1999 and totaled 1,700 million bushels.

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

Item	1996/97	1997/98	1998/99	1999/00P
	Million bushels			
Stocks, June 1	376	444	722	946
CCC inventory	118	93	94	128
Farmer-owned reserve 1/	0	0	0	0
Outstanding 9 months	13	72	134	140
Uncommitted	245	278	495	678
Production	2,277	2,481	2,547	2,302
Imports (June-Aug.)	15	23	24	31
Total supply	2,668	2,948	3,294	3,279
Use, June-Aug.				
Food	224	228	226	224
Seed	9	3	1	6
Feed & residual	378	352	425	279
Exports	334	288	257	325
Total use	944	871	909	834
Stocks, Sept. 1	1,724	2,076	2,385	2,445
CCC inventory	110	93	100	132
Farmer-owned reserve 1/	0	0	0	0
Outstanding 9 months	42	101	236	101
Uncommitted	1,573	1,882	2,049	2,211
Imports (Sept.-Nov.)	21	23	24	19
Total supply	1,745	2,099	2,409	2,465
Use, Sept.-Nov.				
Food	234	239	241	238
Seed	60	59	55	54
Feed & residual	-76	-113	-74	2
Exports	308	296	292	291
Total use	526	480	514	586
Stocks, Dec. 1	1,219	1,619	1,896	1,879
CCC inventory	96	93	127	115
Farmer-owned reserve 1/	0	0	0	0
Outstanding 9 months	131	169	246	117
Uncommitted	992	1,357	1,523	1,647
Imports (Dec.-Feb.)	27	24	28	NA
Total supply	1,246	1,643	1,924	NA
Use, Dec.-Feb.				
Food	213	219	213	NA
Seed	2	2	1	NA
Feed & residual	30	0	12	NA
Exports	179	255	247	NA
Total use	424	476	473	NA
Stocks, March 1	822	1,167	1,450	NA
CCC inventory	95	93	124	NA
Farmer-owned reserve 1/	0	0	0	NA
Outstanding 9 months	130	191	242	NA
Uncommitted	596	882	1,084	NA
Imports (Mar.-May)	30	26	27	NA
Total supply	852	1,192	1,477	NA
Use, March-May				
Food	221	228	228	NA
Seed	32	29	23	NA
Feed & residual	-24	11	33	NA
Exports	180	201	247	NA
Total use	408	470	531	NA

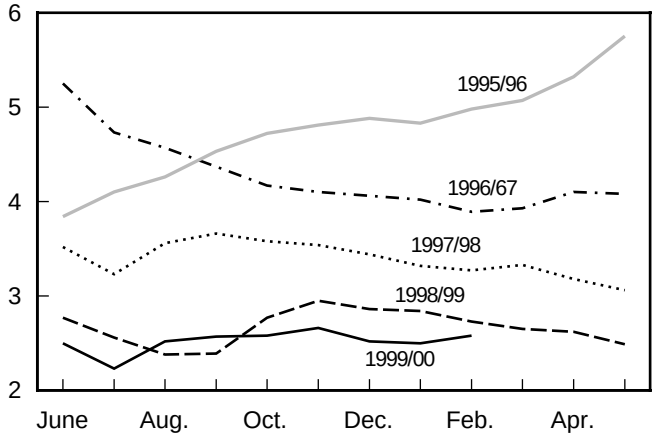
P = Preliminary. NA = Not available.
1/ Includes special producer loan program.

Source: Economic Research Service, USDA.

Because of favorable weather, winter wheat yields surged to a record 47.8 bushels per harvested acre, 2 percent above the old record established the previous year. Lower prices and poor weather in some areas led to greater graze out and abandonment of wheat acres in 1999. An estimated 81.9 percent of the seeded winter wheat area was harvested for grain in 1999, compared with 86.4 percent in 1998 and a 5-year average (1993-98) of 83.6 percent.

Figure 10

Wheat farm price lowest since 1990/91 marketing year



Source: National Agricultural Statistics Service, USDA.

Increase in Durum Production Eliminates Price Premiums

The large durum crop in 1998/99 led to the highest ending stocks forecast since 1991/92. The premium for durum wheat at the farm level relative to hard red spring wheat disappeared during the fall of 1999 (see figure 2), and durum was discounted to "other spring" wheat until December 1999.

Weather during the late harvest damaged the quality of the 1999 durum crop, causing the U.S. average price received by farmers to decline to $2.30 per bushel in September and a seasonal low of $2.17 in October. The October farm price for durum was the lowest monthly average recorded since the National Agricultural Statistics Service (NASS) resumed reporting a monthly farm price for durum in June 1981.

Excessive rainfall delayed the planting and harvest of durum and other spring wheat at several locations in 1999 and durum yields dropped to 27.8 bushels per harvested acre, 25 percent below the previous year. The durum yield has averaged less than 30 bushels only one time during the 1990's. The record durum yield of 39.7 bushels was set in 1992.

Lower Acreage Drops Production of "Other Spring" Wheat in 1999

The "other spring" wheat crop declined in 1999 because of lower harvested acreage and average yield. The average yield was 34.1 bushels per acre for "other spring" wheat (i.e., includes hard red spring and white spring but excludes

durum), down 0.8 of a bushel from 1998. Harvested acreage fell 380,000 acres, and HRS production dropped 38.4 million bushels to 448 million.

Domestic Use Declines in 1999/2000

Disappearance of U.S. wheat in 1999/2000 is forecast to drop about 3 percent from 1998/99, with most of the decrease coming in domestic use. A projected 24-percent decline in feed and residual use will account for most of the decrease in domestic use.

Food use is projected at 905 million bushels in 1999/2000, down about 2 million from a year earlier. This comes on the heels of a 7-million-bushel decline in 1998/99 and is a strong indication that wheat-based food products may be loosing market share to other food products. This probably reflects a change in dietary habits because wheat is apparently not benefiting from population and income growth in the United States. Seed use is forecast up in 1999/2000 because weather-related delays in planting durum and other spring wheat moved some seed use from the 1998/99 marketing year into the 1999/2000 year.

Feed and residual use is projected to drop about 100 million bushels in 1999/2000. Feed and residual use during the first two quarters of the marketing year was down 70 million bushels. Larger supplies and lower prices did not encourage greater use of wheat in livestock and poultry rations during the summer of 1999 because corn prices were also weak. Annual feed and residual use, projected at 300 million bushels, was increased 50 million bushels in January when lower-than-expected December 1 stocks indicated that feed and residual use of 281 million bushels in the first 6 months was higher than previously forecast. The forecast annual feed and residual of 300 million bushels implies that feed and residual use in the final 6 months of the marketing year will be about 20 million bushels.

Ending Stocks Highest Since 1987/88

U.S. ending stocks on May 31 are forecast at 997 million bushels, up 5 percent from a year earlier. Most of the ending stocks will be "free" stocks accessible to the market. Current futures price relationships between old-crop and new-crop futures provide adequate incentives for holding old-crop stocks and carrying them forward into the new marketing year.

LDPs Support Wheat Farmers' Income In 1999/2000

The 1996 Farm Act contained key policy tools to assist farmers when market prices are low. The key provisions are the "nonrecourse marketing assistance loans" and "loan deficiency payments" (LDPs). Producers that entered into Production Flexibility Contracts with USDA are eligible to participate in these programs.

The nonrecourse marketing assistance loans provide interim financing to eligible producers of wheat and other commodities covered by the program. Producers pledge their wheat as collateral and obtain a loan equivalent to the loan rate established in their county by the Farm Service Agency of USDA. The loan proceeds can cover short term cash needs. As of March 27, 2000, wheat producers had outstanding loans on 95 million bushels of 1999-crop wheat. The value of the outstanding loans totaled $243 million, yielding an average loan value of $2.558 per bushel.

The loans may be forfeited to the Commodity Credit Corporation at maturity or repaid at the loan repayment rate at, or before, maturity. The loan repayment rate may actually be less than the loan rate (plus interest) if the posted county price (PCP), a proxy for the local price, falls below the local loan rate. The PCP—calculated each day the Federal Government is open—is based on terminal market prices and a fixed differential to each county, largely reflecting transportation and other marketing factors. When a farmer repays the loan at a lower PCP, the difference between the loan rate and the PCP is called a "marketing loan gain."

If the PCP is below the county loan rate, eligible producers may opt for an LDP in lieu of securing a loan. The LDP rate is the amount by which the county loan rate exceeds the PCP on the date the application is made. The wheat cannot be placed under loan once an LDP is paid. If producers take the LDPs and immediately sell their crop and if the PCP accurately reflects local prices, producers effectively receive a per-unit revenue equal to the loan rate, partly from the market and partly from the government. After an LDP is accepted, the farmer can sell the crop and avoid storage expense or hold it in the expectation of a price rally later in the marketing season.

As of March 27, 2000, eligible producers collected $884 million in LDPs covering 1,891 million bushels of 1999-crop wheat or about 82 percent of the 1999 crop. The average payment rate was 46.7 cents per bushel on 503,462 contracts. Only 55 percent of the 1998 crop received an LDP, and LDPs totaled $414 million for the 1998 crop.

World Wheat Production Declines Slightly in 1999/2000, Trade Expands

Global production slipped less than 1 percent in 1999/2000. Despite low international prices, production increased in Australia, Kazakstan, Canada, and Argentina. Also, large stocks in the United States and the EU insure ample exporter supplies. Drought across the Middle East and parts of North Africa is boosting import demand. World trade is forecast at 104 million tons, the highest in 7 years. Global consumption is expected to grow slowly, mostly because of a decline in wheat feed use. World ending stocks are projected down more than 6 percent.

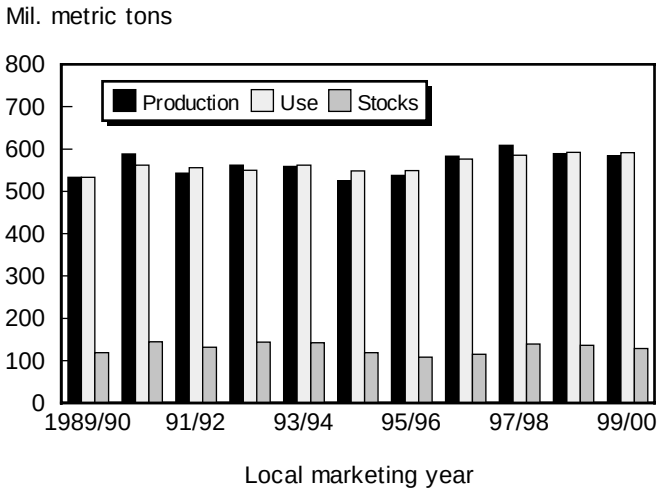
Foreign Wheat Production Up Marginally in 1999/2000

Foreign area is estimated down 3 percent in 1999/2000, largely due to weak prices and poor weather conditions in Russia and parts of Eastern Europe and North Africa. However, low prices for alternative crops in many regions, especially most of the major foreign exporter regions, limited the decline in wheat area. Foreign yields rebounded from the previous year, and are close to the 1997/98 record. Foreign production increased less than 1 percent to 523 million tons (figure 11).

Several wheat exporting countries expanded production because prices for alternative crops were even lower than wheat prices. Kazakstan had very favorable growing conditions, and although area declined, production increased from 4.7 million tons to 11.2 million. Australia planted the largest wheat area since 1984 because of low prices for wool or alternative crops such as feed grains or oilseeds. This was followed by favorable weather during the growing season, boosting yields to the second highest on record, and generating a record 24.5-million-ton crop.

Figure 11

World wheat production, use, and stocks, 1989-99



Source: Foreign Agricultural Service, USDA.

Argentina also expanded wheat area, and reaped the second highest yields on record, boosting production by over 20 percent to 14.5 million tons. Canada reduced wheat seedings by 4 percent because of expectations of relatively more attractive prices for oilseeds. Yields were a record, however, boosting production more than 10 percent to 26.9 million tons. These four exporters raised wheat production 14.2 million tons in 1999/2000, despite relatively low world prices.

Wheat production in 1999/2000 also increased a combined 9.7 million tons in two of the largest producing countries, China and India. China reduced price supports and wheat area declined some, but generally favorable growing conditions boosted yields. China's wheat production reached 115 million tons, up 5 million from the year before, but still 8 million below the 1997/98 record. In India, increased price supports boosted wheat area planted, and the mostly irrigated crop posted the second best average yield, pushing production to a record high 70.8 million tons (significantly higher than U.S. production).

Most of the increases in foreign wheat production were offset by reduced production in the EU, Eastern Europe, Middle East, and North Africa. Also, Russia and Ukraine suffered low yields and high area abandonment for a second straight year.

Wheat area in the EU increased slightly because most producers found wheat prices more attractive than barley.

However, cool weather and excessive rains reduced area in the United Kingdom and Germany, as well as sapping yields in France. EU wheat production dropped 6.2 million tons from the 1998 record. Too much rain and flooding interrupted wheat planting in Eastern Europe, so area declined. Although average yields about matched the previous year, production in Eastern Europe dropped 4.8 million tons.

Drought caused sharply reduced production in several other regions. In North Africa, drought was particularly severe in Morocco, where yields were cut in half. An unusual drought spread across most of the Middle East, from southern Turkey and Israel through Iran, and wheat production dropped 7.6 million tons from the previous year's record. Drought for a second straight year plagued wheat production in Russia and Ukraine, and although Russia's wheat production increased, the small increase was from the 50-year low of the previous year. Ukraine production was the lowest since 1945.

While foreign production increased slightly in 1999/2000, U.S. production dropped enough to cause a decline in total world wheat output.

World Wheat Consumption Slows in 1999/2000

World wheat consumption is forecast to reach 594 million tons in 1999/2000, up less than 3 million. Global wheat feed and residual use is expected to decline more than 2 million tons because in most regions, prices for feed grains are even lower than wheat prices. Wheat feed use continues to expand in the EU, where the relative price of wheat and feed grains does not reflect international prices. However, in countries like the United States and South Korea, where world prices prevail, wheat feeding is down in 1999/2000. In Eastern Europe and the former Soviet Union wheat feed use is forecast relatively unchanged.

Global food, seed, and industrial use is expected to rise only 1 percent in 1999/2000, to 489 million tons, despite the relatively low prevailing wheat prices. This is less than population growth. The underlying demand for wheat does not appear to be as strong as might be expected, given population growth and economic recovery in some key countries. Middle income countries may be diversifying diets, while the poorest who might wish to increase wheat consumption may not be able to afford wheat products even at current low prices.

World Wheat Trade Forecast Up 4 Percent in 1999/2000

Global trade is forecast to reach 104 million tons (July/June), up 4 percent from the previous year and the largest since 1988/89, but still not near the record 116 million reached in 1987/88. Demand is being boosted by increased imports caused by drought across the Middle East, especially Iran. The former Soviet Union is also increasing imports, partly reflecting aid shipments, and partly the increase in shipments by Kazakstan to other countries in the region. However, most other regions of the world, including North and South America, Western Europe, North Africa, Sub-Saharan Africa, South Asia, and "Other" Asia, show a year-to-year decline in forecast imports.

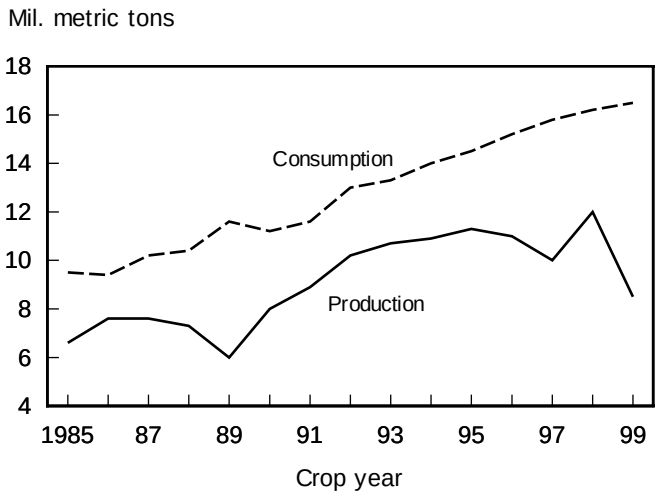
Iran is emerging as the world's largest wheat importer in 1999/2000, boosting imports from 2.5 million tons in 1998/99 to a forecast 7.0 million. Drought reduced Iran's production almost 30 percent (figure 12). Population growth is rapid and wheat is the traditional staple. Iran's imports have been variable, reaching 7.1 million tons in 1996/97, and then falling for the next 2 years. However, unlike 1996/97, Iran is expected to reduce ending stocks in 1999/2000, implying that imports are for current consumption. The increase in Iran's 1999/2000 imports is larger than the increase in global trade. Other countries in the Middle East are also increasing imports to make up for drought-reduced production. The region is forecast to boost imports more than 5 million tons.

Several other large wheat importers are expected to reduce imports in 1999/2000. Brazil, expected to be the second largest importer, is forecast to reduce imports 8 percent to 6.7 million tons. Brazil increased wheat production and is in a recession, but the decline in imports is mostly a matter of the timing of purchases. On a local marketing year, imports are unchanged year-to-year.

Egypt is also forecast to import less wheat in 1999/2000, down 18 percent. Again there is a small increase in domestic

Figure 12

Iran: Wheat production and consumption, 1985-99



Source: Foreign Agricultural Service, USDA.

production and a reduction in stocks, so that even with imports down sharply, consumption continues to grow. The decline in Egypt's imports will more than offset any increases in other parts of North Africa.

In South Asia, imports by Pakistan are forecast down more than 25 percent because of a second year of large production and a decision to reduce stocks. Large wheat and rice crops in Bangladesh are reducing the need to import. These reductions offset increased imports by the rest of the region.

In "Other Asia," South Korea is expected to reduce wheat imports 25 percent because feed wheat prices are less attractive this year. China has large grain stocks and is forecast to reduce wheat imports to the lowest level covered by the USDA data base that goes back to 1960 (figure 13).

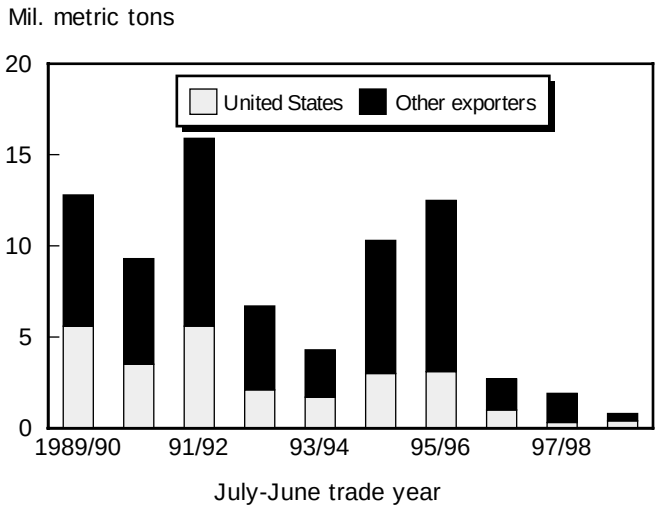
Exporters' availability of wheat is not a significant constraint on world trade in 1999/2000. For most of the year, export prices have remained at or below those of a year earlier.

World Wheat Stocks To Decline in 1999/2000, But Stocks Up in Some Key Exporting Countries

The combined ending stocks of the United States, Canada, and Australia are forecast up nearly 2 million tons in 1999/2000, about a 5-percent increase. Because exportable supplies in these exporting countries have a large role in determining prices, they have tended to depress wheat prices through the first three quarters of the U.S. marketing year. The expectation that global stocks will decline more than 9 million tons is less important for price determination because much of the stock reductions are expected in countries like the EU, China, Iran, Egypt, and Pakistan, where domestic market prices are isolated from world markets.

Figure 13

Wheat exports to China, 1989/90-1998/99



Source: Economic Research Service and Foreign Agricultural Service, USDA.

U.S. 1999/2000 Export Prospects Similar to a Year Earlier, Trade Share Declines

U.S. 1999/2000 wheat exports are forecast up slightly on a June/May local marketing year, but down slightly on a July/June international marketing year. Despite large ongoing donation programs, other exporters are capturing the increase in world wheat trade.

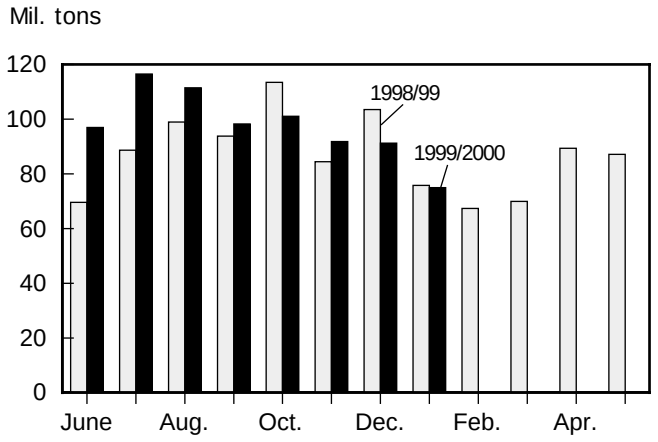
U.S. Export Forecasts Flat Despite Strong Start in 1999/2000

U.S. 1999/2000 wheat exports are expected to reach 28.5 million tons (July/June), down 0.5 million from the previous year, or 1.05 billion bushels (June/May), up slightly from the previous year. The difference is June, a month of strong shipments in 1999 because of heavy donations. Forecast exports are near the levels reached in the last 2 years, and are more than a million tons greater than 1996/97. Nevertheless, exports are expected to be smaller than in any year from 1987/88 through 1995/96. U.S. exports are constrained by intense competition among exporters.

Export shipments during the first half of 1999/2000 have generally been stronger than a year ago (figure 14), but according to *U.S. Export Sales*, as of March 16, outstanding sales were down about 16 percent from a year ago. Competition in the second half will be intense because of large Southern Hemisphere production, especially in Australia, which harvested a record crop, and the large Argentine production. Additionally, Canada has been marketing its large 1999 crop at a measured pace, and still has abundant supplies to sell during the second half.

Figure 14

U.S. wheat exports by month, 1998/99 and 1999/2000



Includes flour and products in wheat equivalent units.
Note: 6/98-1/99 = 728 million bushels; 6/99-1/2000 = 782 million bushels.
Source: Bureau of the Census, U.S. Department of Commerce.

Donations are also affecting the pace of U.S. wheat shipments. Donations are not included in outstanding export sales. The latter part of last season was supported by a sharp increase in donations. Much of the recently announced donations will likely not occur until after the 2000/01 year begins.

According to *U.S. Export Sales*, U.S. wheat export shipments through March 16, 2000, were just under 21 million tons. Shipments were down to Europe and Asia, while increasing to Africa and the Western Hemisphere. Shipments were up to Mexico, Colombia, and Chile, but only small shipments have been made to Brazil, despite a resolution to the phytosanitary regulation problems that had kept the United States out of the world's second largest market.

Shipments to Africa are up slightly, mostly because of larger shipments to Morocco and Egypt, but outstanding sales to Egypt are down dramatically from 1.1 million tons a year earlier to 0.2 million. The United States has not been successful in recent tenders, and Egypt's pace of purchases has dropped recently.

Shipments to Asia have dropped mostly because of reduced exports to Pakistan, Iraq, China, and Bangladesh. Exports to Pakistan are running at less than half the pace of a year ago, partly because of reduced total imports, but also because Australia has increased its market share due to lower freight rates relative to U.S. rates. Iraq has not purchased any wheat this year from the United States. China and Bangladesh are reducing overall imports. These declines more than offset increased sales to Yemen and Israel.

According to *U.S. Export Sales*, shipments to Europe are down because of reduced purchases by the EU, Eastern Europe, and the former Soviet Union. The EU has purchased less HRS for blending with lower protein wheats, partly because of competition from Canada and Germany.

Commercial sales to Eastern Europe and the former Soviet Union are almost nonexistent this year.

U.S. Share of World Trade Dropping in 1999/2000

Canada, Argentina, Australia, the EU, and Kazakstan are expected to increase their share of world wheat trade in 1999/2000 while shares of the United States (figure 15), Turkey, and Eastern Europe decline. Turkey and Eastern Europe have reduced production in 1999/2000, partly explaining their reduced exports, but U.S. exports are suffering from intense competition. Canada's share is expected to increase to 18 percent from 14 percent in 1998/99. Canada's production and stocks are up from the previous year, and competition from Canada is contributing to reduced U.S. shipments of HRS.

Australia, with its record crop, is also expected to capture 18 percent of world trade in 1999/2000. Being a Southern Hemisphere producer, Australia will provide intense competition from its new crop, especially during the latter half of 1999/2000. This increased competition will continue in 2000/01.

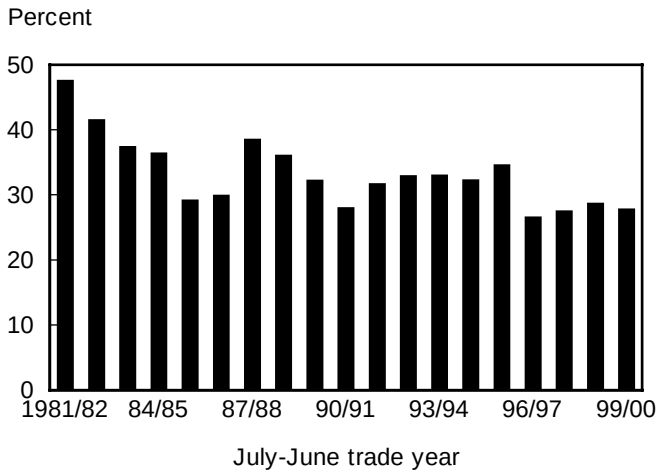
Argentina increased wheat production because prices of alternative crops were low. Argentina's exports are forecast at 10 million tons, the third largest on record. With increased supplies, Argentina's exports will limit opportunities for the United States in Latin America, especially Brazil.

The EU is expected to increase wheat exports and raise market share in 1999/2000. The EU started the year with large stocks, and although production was down, large supplies have placed pressure on the European Commission to aggressively subsidize exports. However, the subsidies needed to move the wheat have been quite large, around 30 euros per ton. EU wheat has been priced competitively with U.S. SRW, and SRW has been selling at a significant discount to other classes. As a result, the EU has been getting effectively less for wheat f.o.b. than the export price of U.S. corn. The EU has been willing to pay these large subsidies, and is expected to increase exports in a low-priced market.

Kazakstan's wheat exports are expected to double in 1999/2000, increasing its share of world trade, but most exports are expected to go to Russia.

Figure 15

U.S. share of world wheat trade down in 1999/2000



Excludes intra-EU trade.

Source: Foreign Agricultural Service, USDA.

Lower Domestic Use Pushes Wheat Stocks Higher in 1999/2000

Domestic use is projected to decline in 1999/2000 despite lower prices. Feed and residual use will lead the way, but food use is expected to be down for the second year in a row. Ending stocks are forecast to be the largest since 1987/88.

HRW Crop Matches Yield Record Established in 1998

A mild winter followed by generally favorable spring weather in 1999 pushed crop development for winter wheat slightly ahead of average. An average of 88 percent of the crop was headed as of June 6, compared with the 5-year average of 86 percent. The HRW crop survived the winter well, but above average spring and early summer precipitation in the southern Plains hampered harvest at many locations. Excessive rainfall also raised concerns about disease problems and lower protein levels.

The U.S. average yield for hard red winter was 43.1 bushels per acre, matching the record established in 1998. In Kansas, the largest wheat producing State, the crop totaled an estimated 432 million bushels, 24 million above the first forecast in May 1999 but 63 million below a year earlier. Harvested area in Kansas was down 900,000 acres while the yield averaged 47 bushels per acre, 2 bushels below the State's 1998 record.

HRW beginning stocks for 1999/2000 (June 1) were estimated at 435 million bushels, 42 percent above the previous year (table 2). Total production declined to 1,055 million bushels, but this was more than offset by the larger beginning stocks. Consequently, total HRW supplies are forecast to climb to 1.49 billion bushels, the most since 1987/88 when beginning stocks were substantially larger.

The Kansas Department of Agriculture issued a press release on July 30, 1999, on the quality of the 1999 crop in Kansas. That release indicated that protein and test weight were down. Preliminary data from 9,386 carlot samples randomly collected from 61 counties showed an average test weight of 60.2 pounds per bushel, compared with the 1998 average of 61.5 pounds and a 10-year average (1988-97) of 59.9 pounds. The drop in test weight has probable affected milling efficiency (throughput).

Protein is averaging 11.3 percent in 1999, compared with 11.5 percent for 1998, and a 10-year average of 12.4 percent. This decline has increased premiums paid for carlots of HRW and hard red spring (HRS) with higher levels of protein. Millers reportedly are blending higher percentages of high-protein HRS with the lower protein HRW class to produce flours of the desired protein level.

Table 2--HRW supply and demand 1/

Item	95/96	96/97	97/98	98/99	99/00P
			Million acres		
Area:					
Planted	33.8	35.4	34.0	32.4	30.9
Harvested	27.7	25.7	28.7	27.3	24.4
			Bushels per harvested acre		
Yield	29.8	29.5	38.3	43.1	43.3
			Million bushels		
Supply:					
Beg. stocks	194	154	143	307	435
Production	825	759	1,098	1,179	1,055
Imports	0	0	1	1	1
Total supply	1,019	914	1,242	1,487	1,491
Domestic use:					
Food	346	320	381	385	375
Seed	40	38	36	35	34
Residual	96	127	156	179	130
Total domestic	481	484	573	599	539
Exports	384	286	362	453	485
Total use	865	771	935	1,052	1,024
Ending stocks	154	143	307	435	467

P = projected.

1/ ERS estimates of area, yield, and domestic use.

Source: Economic Research Service, USDA.

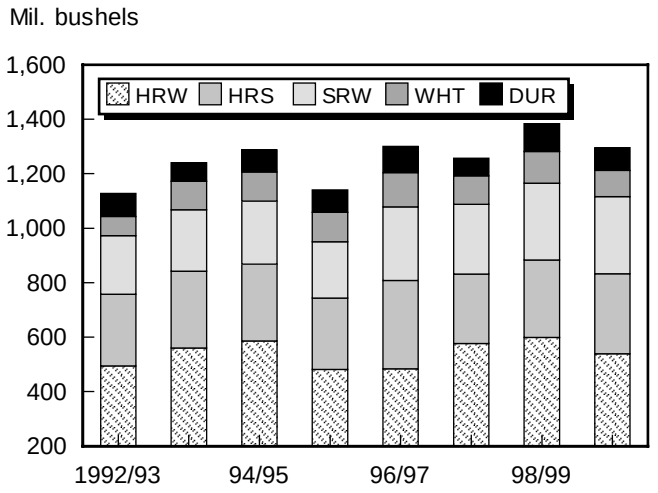
Lower protein levels are expected to lead to lower domestic use in 1999/2000 (figure 16). HRW food use is projected to decline almost 3 percent, feed and residual use is projected down 27 percent despite lower prices, and exports are projected to be up about 7 percent from 1998/99 (figure 17). The higher exports are due partially to USDA donations to needy nations. The lower domestic use more than offset the rise in exports, and ending stocks are forecast up at 467 million bushels, the largest since 1987/88.

HRS Output Declines, Exports Fall Significantly

In July 1999, the first survey-based forecast for "other spring" wheat production (i.e., excluding durum) indicated

Figure 16

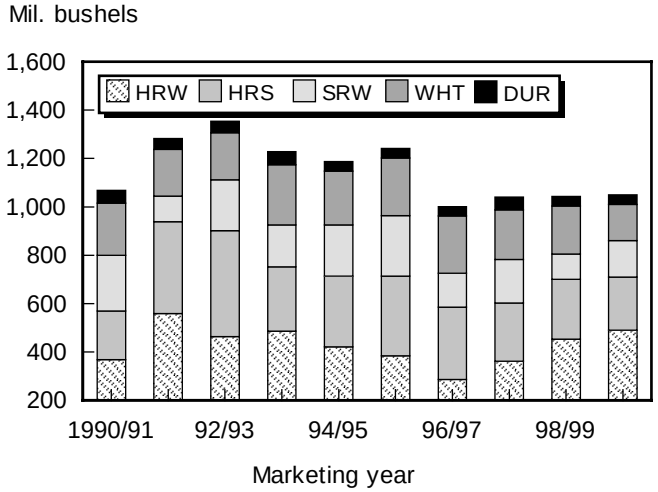
Domestic use by class reflects decline in total domestic use in 1999/2000



1999/2000 projections.
Source: Economic Research Service, USDA.

Figure 17

Exports by class: HRW rebounding, White declining



1999/2000 projections.
Source: World Agricultural Outlook Board, USDA.

production would total 527 million bushels in 1999. The forecast primarily reflected a planted area of 15.3 million acres and a harvested area of 15.0 million. The acreage decline indicated that farmers were shifting acres to durum wheat, soybeans, and other field crops or had fallowed the land. The final estimate of harvested area declined to 14.8 million, a drop of 3 percent from the previous year.

Hard red spring (HRS) wheat suffered from delayed plantings, variable growing conditions, and a wet, prolonged harvest. These factors led to a decrease in planted and harvested areas, below-average yields, and a greater incidence of crop abandonment in 1999. Disease pressures were significantly lower than in previous years and the resulting crop had average to good quality.

HRS production is estimated at 448 million bushels in 1999/2000, down 8 percent from the previous year. Average yield is pegged at 32.5 bushels per acre, a drop of 1.3 bushels. Imports declined from the record set in 1998/99, and total supply in 1999/2000 is estimated at 736 million bushels (table 3). Food use is projected to total 235 million bushels. The lower protein levels in the HRW crop led millers to increase the use of HRS with higher protein levels. Exports of HRS are projected at 215 million bushels, down about 13 percent from the previous year. Ending stocks are forecast at 226 million bushels, down 3 percent from 1998/99.

The *1999 Regional Crop Quality Report* for HRS wheat reported the results of analysis of 1,094 samples randomly collected in the four-State HRS growing region in the northern Plains (Minnesota, North Dakota, South Dakota, and Montana). The report is published jointly by the North Dakota Wheat Commission, the Montana Wheat and Barley Committee, the Minnesota Wheat Research and Promotion Council, and U.S. Wheat Associates. The report was based on wheat samples collected by the National Agricultural Statistics Service, USDA, and evaluated by the Department of Cereal Science of North Dakota State University at Fargo.

The average protein content of the 1999 HRS crop was strong, with an estimated regional average of 14.2 percent. That was lower than the 14.3 reported in 1998, but above the 5-year average of 14.1 percent. Fifty-nine percent of the

Table 3--HRS supply and demand 1/

Item	95/96	96/97	97/98	98/99	99/00P
			Million acres		
Area:					
Planted	16.1	19.1	18.3	14.8	14.3
Harvested	15.7	18.8	17.5	14.4	13.8
			Bushels per harvested acre		
Yield	30.2	33.6	28.1	33.8	32.5
			Million bushels		
Supply:					
Beg. stocks	193	106	166	220	233
Production	475	631	491	486	448
Imports	30	53	57	58	55
Total supply	698	790	714	765	736
Domestic use:					
Food	231	260	225	230	235
Seed	27	32	24	18	25
Residual	4	32	5	36	35
Total domestic	262	324	253	284	295
Exports	330	300	241	247	215
Total use	592	624	494	532	510
Ending stocks	106	166	220	233	226

P = projected.
1/ ERS estimates of area, yield, and domestic use.
Source: Economic Research Service, USDA.

samples tested had protein content of 14 percent or more, compared with 60 percent in 1998. Average test weight in 1999 was estimated at 59.3 pounds per bushel, 0.7 of a pound below 1998 and 0.8 below the 5-year average. Test weights of 58 pounds or more were recorded for 68 percent of the samples.

The average "falling number" for the 1999 crop was 347 seconds, down significantly from the 422 seconds reported for 1998 and the 5-year average of 386. Falling number indicates the soundness or alpha-amylase activity in wheat or flour. A high falling number indicates low enzyme activity, while low falling numbers indicates high enzyme activity associated with non-visible sprout damage.

An estimated 28 percent of the regional HRS crop graded No. 1 Dark Northern Spring (DNS), down from 31 percent the previous year. The subclass DNS is HRS wheat that has 75 percent or more dark, hard, and vitreous kernels (DHVK). An additional 9 percent of the samples graded No. 2 and 3 DNS. An estimated 24 percent of the samples graded No. 1 Northern Spring (NS). The subclass NS is HRS wheat that has more than 25 percent, but less than 75 percent DHVK. In 1999, 67 percent of the samples graded No. 2 NS or better, down from 77 percent the previous year.

SRW Crop Is Larger as Yields Reach Record Highs

Soft red winter (SRW) production was 453 million bushels in 1999, up 2 percent from 1998. Higher yields more than offset a decline in harvested acreage. Yield records were established in Alabama, Arkansas, Indiana, Louisiana, Michigan, Mississippi, New York, Ohio, and Tennessee. Ohio led all of these States with 70 bushels per acre. Total supply is up 13 percent due mainly to record beginning stocks of 136 million bushels, 56 million above the previous year.

Total SRW use in 1999/2000 is forecast at 453 million bushels, up 14 percent from 1998/99 (table 4). Higher exports account for almost all of the increase. SRW exports are projected at 160 million bushels in 1999/2000, up 55 million from the previous year. Major buyers this season are Egypt, Mexico, Morocco, and the Philippines. As of March 16, Egypt accounted for 34 percent of the accumulated exports reported in USDA's *U.S. Export Sales* report. SRW exports in 1998/99 totaled only 105 million bushels, the lowest since the 95 million exported in 1978/79. That year, supplies were tight and ending stocks totaled a modern time low of only 27 million bushels.

Historically, export demand has been critical to keeping SRW supply and demand in balance. Exports were above 300 million bushels as recently as 1989/90, and totaled a record 460 million bushels in 1981/82. During the 1960's and 1970's SRW often moved under government aid programs such as PL 480 because it was the least expensive class of wheat.

Table 4--SRW supply and demand 1/

Item	95/96	96/97	97/98	98/99	99/00P
			Million acres		
Area:					
Planted	10.6	11.7	9.9	10.2	9.1
Harvested	9.3	9.7	8.7	9.1	8.0
			Bushels per harvested acre		
Yield	49.0	43.4	54.2	48.9	56.6
			Million bushels		
Supply:					
Beg. stocks	37	35	45	80	136
Production	456	420	472	443	453
Imports	0	0	0	0	0
Total supply	492	455	517	523	589
Domestic use:					
Food	150	150	155	150	155
Seed	23	19	20	17	18
Residual	34	101	82	115	110
Total domestic	207	270	257	282	283
Exports	250	140	180	105	160
Total use	457	410	437	387	443
Ending stocks	35	45	80	136	147

P = projected.
1/ ERS estimates of area, yield, and domestic use.
Source: Economic Research Service, USDA.

Shrinking aid shipments have been a factor in the declining volume in much of the 1990's. The declining importance of importing countries' government procurement agencies has also been an important factor. In earlier years, foreign government procurement agencies often bought the least expensive wheat available, which was not necessarily the kind most preferred by their millers and end-users. Because the role of government procurement agencies has declined in recent years, foreign millers have a greater influence on purchasing decisions, and many now purchase other classes that are better suited for the intended end-uses of the flour they produce.

Feed and residual use is forecast to total 110 million bushels. Monthly regional average farm prices for SRW (appendix table 20) have been running about 11 cents per bushel below regional average farm prices for HRW during the first 8 months of the marketing year. The relatively strong prices for SRW have discouraged feed use, and weak corn prices have prevented more SRW wheat from being fed to livestock and poultry. As a result, SRW stocks are projected to reach a record high of 147 million bushels at the end of the 1999/2000 marketing year.

Lower White Wheat Use, Ending Stocks Up

White wheat supplies are forecast at 341 million bushels in 1999/2000, 60 million less than the previous year (table 5). Production declined 18 percent because of significant yield reductions in Idaho, Oregon, and Washington, the major western producing States. Producers in those States planted about 300,000 fewer acres due to planting problems in the Pacific Northwest. White wheat yields in the Pacific Northwest, estimated at 60.4 bushels per acre in 1999/2000,

Table 5--White wheat supply and demand 1/

Item	95/96	96/97	97/98	98/99	99/00P
			Million acres		
Area:					
Planted	5.1	5.3	4.9	4.7	4.5
Harvested	4.9	5.1	4.7	4.5	4.1
			Bushels per harvested acre		
Yield	66.7	68.9	70.2	67.4	60.4
			Million bushels		
Supply:					
Beg. stocks	57	55	59	90	87
Production	325	352	332	301	247
Imports	19	15	8	11	7
Total supply	401	422	399	401	341
Domestic use:					
Food	77	85	80	75	75
Seed	7	7	6	6	6
Residual	24	34	18	35	15
Total domestic	108	126	104	116	96
Exports	238	237	205	198	150
Total use	346	363	309	314	246
Ending stocks	55	59	90	87	94

P = projected.

1/ ERS estimates of area, yield, and domestic use.

Source: Economic Research Service, USDA.

were down 10 percent from 1998, reflecting yield declines for other spring wheat in Idaho, Washington, and Oregon. Oregon yields declined the most—20 bushels per acre.

In contrast, Michigan and New York, the major eastern white wheat producing States, set yield records in 1999, with averages of 69.0 and 65.0 bushels, respectively. These States combined produced 50 million bushels of white wheat or 11 percent of the national total, and the average yield of 68.3 bushels was 13 percent above the national average for soft white wheat.

Pakistan has traditionally been a large buyer of white wheat, and accounted for about 50 percent of U.S. white wheat exports in 1997/98. As of March 16, 2000, Pakistan accounted for only 13 percent of the shipments to date during the 1999/2000 marketing season. Egypt and Mexico also were important destinations for U.S. white wheat exports during 1998/99. These countries have shifted purchases to SRW this marketing season in response to more favorable prices for SRW. Japan, the Philippines, the Republic of South Korea, Yemen, and Taiwan are the other major destinations for U.S. white wheat exports.

International trade is critical to the white wheat market because exports normally account for about two-thirds or more of total white wheat use. U.S. white wheat exports are forecast down 24 percent from 1998/99. Australia is the other major white wheat supplier in the world market, although Canada also exports small quantities of white spring wheat from western provinces and white winter from eastern provinces.

Lower domestic use and weak exports will contribute to higher ending stocks and low prices this season. Ending stocks are projected at 94.5 million bushels, up more than 8 percent from a year earlier.

Adverse Planting and Harvest Weather Changes Durum Picture

Weather-related problems plagued durum growers in 1999 and largely were responsible for the decrease in crop quality from 1998. Planting was delayed in many areas because of heavy rains in May. Seeding was not completed until after June 15. The growing season was mostly favorable, though excessively moist at some locations. The harvest was drawn out by the late maturation of the crop and unusually cold and wet conditions. As of October 3, only 81 percent of the durum crop was harvested, compared with a 5-year average of 96 percent.

USDA's *Prospective Plantings* report, released on March 31, 1999, indicated that U.S. durum producers intended to increase the area seeded to durum wheat to 4.270 million acres in 1999, up 12 percent from 1998 and the largest since 1982. However, excessive rainfall at many locations either seriously delayed or prevented plantings. USDA's June 30 *Acreage* report indicated that durum producers actually seeded or planned to seed only 4.165 million acres in 1999. The *Small Grains: 1999 Summary* reduced the area seeded to 4.065 million, and the *Crop Production: 1999 Summary* released in January 2000 indicated that farmers actually seeded only 4.035 million acres.

Early in 1999, most analysts were expecting a drop in durum acreage in 1999 in response to lower prices. Apparently, producers responded to an attractive federally backed crop revenue coverage (CRC) pilot insurance program rather than market conditions in the spring of 1999.

The 1999 durum production season ended the way it began, with cool, wet conditions hampering progress. In North Dakota only one-third of the durum acres were harvested as of September 12 and only 81 percent of the harvest was completed by October 3, 15 points below the 5-year average.

Persistent wet weather during the harvest season led to increased acreage abandonment. In November, the weather-related harvest delays in North Dakota led the National Agricultural Statistics Service (NASS) to update projections of harvested acres, yield, and production for small grains in North Dakota and Montana in the November *Crop Production* report.

The wheat revisions affected only the durum estimates. Durum harvested area was reduced to 3.609 million acres, down 250,000 from the previous estimate released on September 30. All of the reduction was in North Dakota. The projected U.S. yield was reduced 0.7 bushel, reflecting

a 1-bushel decline in Montana and North Dakota. The final estimate released in January lowered harvested area to 3.569 million. Durum production is now estimated at 99 million bushels, down 24 percent from the first estimate for the year of 132 million bushels released in July 1999.

The principal durum region is the northern Plains. Minnesota, Montana, North Dakota, and South Dakota accounted for over 95 percent of the durum acreage harvested in 1999. Farmers in these States harvested 3.4 million acres, and accounted for about 84 percent of production. Yields in these States averaged about 24.4 bushels per harvested acre, down from 32 bushels the previous year.

Durum is also grown under irrigation in the desert areas of California and Arizona, where farmers harvested about 160,000 acres (less than 2 percent of the total) in 1999. Yields in those States averaged about 101 bushels per harvested acre, and desert area production totaled 16 million bushels, down from 31 million in 1998. Producers in Arizona and California responded to market signals and reduced acreage in 1999. The CRC insurance program was not offered in these States.

Domestic use of durum is forecast at 84 million bushels in 1999/2000 (table 6). Imports if grain and products (converted to grain equivalent units) are forecast to drop slightly from the previous year's record to 32 million bushels (grain and products). Domestic food use of durum is forecast to decline for the fifth year in a row to 65 million bushels, down from 67.5 million in 1998/99. Durum grain and product imports will account for about half of the domestic food use for the second year in a row (figure 18).

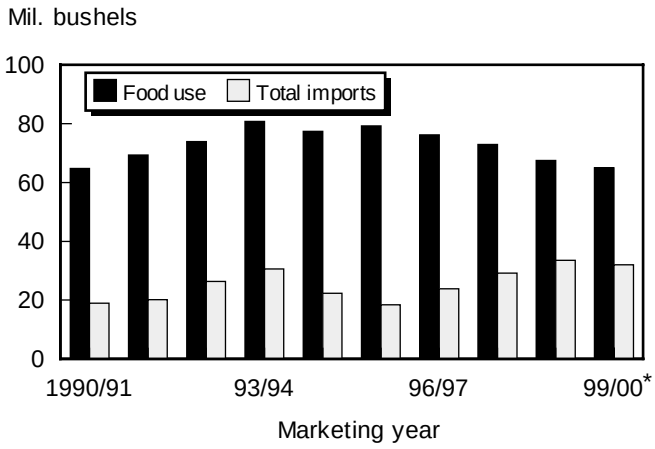
Table 6--Durum supply and demand 1/

Item	95/96	96/97	97/98	98/99	99/00P
			Million acres		
Area:					
Planted	3.4	3.6	3.3	3.8	4.0
Harvested	3.4	3.6	3.2	3.7	3.6
			Bushels per harvested acre		
Yield	30.4	32.6	27.6	37.0	27.8
			Million bushels		
Supply:					
Beg. stocks	26	25	31	26	55
Production	102	116	88	138	99
Imports	18	24	29	34	32
Total supply	147	165	148	197	186
Domestic use:					
Food	79	76	73	68	65
Seed	7	7	7	4	9
Residual	-4	14	-10	32	10
Total domestic	82	96	69	103	84
Exports	39	38	53	40	40
Total use	121	135	122	143	124
Ending stocks	25	31	26	55	63

P = projected.
1/ ERS estimates of area, yield, and domestic use.
Source: Economic Research Service, USDA.

Figure 18

U.S. durum wheat: Food use and imports, 1990/91-1999/2000



Total imports include products converted to grain equivant units.
*Projections.
Source: Bureau of the Census, U.S. Department of Commerce.

Larger world supplies and weaker import demand in many countries have intensified competition among the major durum exporters in 1999/2000. U.S. durum exports are projected at 40 million bushels (grain and products), about the same as last year. Export sales started slowly, and accumulated exports through the first two quarters totaled about 21 million bushels. Despite the weak export projection, the United States will maintain its status as the world's second largest exporter behind Canada.

Ending stocks are projected at 63 million bushels, up 14 percent from last year. Burdensome stocks and weak demand will pressure durum wheat prices for the remainder of the 1999/2000 marketing season.

The *1999 Regional Crop Quality Report* for durum wheat released by the North Dakota Wheat Commission reflected an analysis of 375 randomly collected samples from individual farms and country elevators in major durum growing areas in North Dakota and Montana. The samples were collected by the North Dakota Agricultural Statistics Service and analyzed by the North Dakota State University Cereal Science Department.

The average protein content of the 1999 durum crop is strong with an estimated regional average of 13.8 percent. That is lower than the 14.2 percent reported in 1998 but is above the 5-year average of 13.6 percent. Average test weight in 1999 is estimated at 59.8 pounds per bushel, 0.6 of a pound below 1998 and 0.3 below the 5-year average.

The average falling number for the 1999 durum crop is 250 seconds, down significantly from the 369 seconds reported for 1998 and the 5-year average of 355. The lower falling

numbers reflect the relatively high incidence of sprout damage in the 1999 durum crop. Sixty-six percent of the 1999 crop had a falling number of 250 seconds or greater, compared with 99 percent in 1998.

An estimated 59 percent of the regional durum crop graded Hard Amber Durum (HAD)—the subclass with 75 percent or more of hard and vitreous kernels of amber color that are preferred by durum millers. An estimated 11 percent of the crop graded No. 2 Amber Durum (AD) or better. The AD subclass has 60 percent or more, but less than 75 percent, of hard and vitreous kernels of amber color.

Russia's Wheat Production and Trade: Recent Performance and Future Prospects

Michael Trueblood [1]

Abstract: At the time of reform, some economists thought Russia might switch from a net wheat importer to a net exporter, provided there were institutional and agricultural reforms that would increase productivity. However, this has not turned out to be the case. Several measures of productivity and efficiency have declined. Production efficiency on corporate farms fell within Russia for several reasons, including average farm size, self-sufficiency efforts, soft budget constraints, subsidiary private plot output, and marketing channels. A comparison of Russian wheat yields with those of other countries shows that the gap between Russia and other countries has widened in recent years.

Keywords: Russia, agricultural reform, transition economies, productivity, efficiency, convergence

Introduction

In the past, Russia was a major player in global food markets, in particular the wheat market. Russia's importance to global markets has declined in recent years, although the country still has the potential to affect world food prices, given its size and population (148 million people). Questions abound whether Russia can institute the reforms necessary to raise agricultural productivity and output, as well as create the institutional framework necessary for a well-functioning market-driven agricultural economy.

Prior to the reform period that began in 1992 (following the breakup of the former Soviet Union), Russia produced about 8 percent (44 million tons on average for 1989-91) of the world's wheat output. The country's volume of wheat imports accounted for almost 10 percent (11 million tons) of the world's wheat trade. Recently, Russia's wheat production has declined to the point that it only accounts for about 5.7 percent (34 million tons on average for 1997-99, although the last 2 years have been drought years) of global production. Imports have contracted sharply and now account for only 2.7 percent (3.4 million tons on average for 1997-99) of global trade.[2]

The changes in the Russian wheat market are part of the larger issue of economic reform. In general, Russia has cut back on meat consumption as incomes have dropped and real food prices have risen. This has a had a ripple effect, linking backward into the production system. Feed grain (including wheat) and livestock producers have been forced to cut back production. What has emerged recently in the consumer meat market are meat imports that compete with and substitute for meat that used to be produced domestically.

These changes can be explained by two key reforms. First, Russia engaged in price reform by eliminating both production subsidies and consumer subsidies. Removing production subsidies led to reduced output. Removing consumer subsidies led to reduced consumption. Second, trade reform added further pressure to production, as Russian producers have had to compete with international suppliers.

A key question of interest to policy makers that emerged early in the reform process—and is still critical today—was whether Russia would be able to raise its overall agricultural productivity. Early economic studies conducted after reform began forecast that Russia's agriculture would recover from its initial shock period within a few years and re-emerge on global markets as a potentially significant grain exporter.[3] In retrospect, those early studies seem overly optimistic since they projected that productivity would increase as a result of real reform. Recent forecasts have projected that Russia's agricultural economy will remain stagnant and that the country will be a relatively minor importer on world agricultural markets.[4]

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[2] In contrast to most other countries, a large portion of wheat in Russia is fed to livestock. Higher grades of wheat are used for human consumption, while inferior grades are routinely fed to animals.

[3] See Koopman (1991); Liefert, Koopman and Cook (1993); Johnson (1993); and Tyer (1994).

[4] See Sedik, Liefert, and Liapis (1998).

This article reviews the overall agricultural reform situation in light of internal agricultural performance measurements. Then Russian wheat yields are compared with those of other countries for an external approach. Policy implications are discussed in the final section.

Overall Agricultural Performance and Reform in Russia

Recently, ERS has been examining Russia's agricultural performance in the reform era. The studies have reviewed the performance of large former state and collective farms, which are referred to as corporate farms in this article, since they continue to account for over 90 percent of all agricultural output.[5] Data limitations have prevented detailed analysis of the wheat sector for the most part, but instead have focused on the crop sector overall. However, since wheat is one of the largest components of total output on a value basis, much of what is discussed below is directly applicable to wheat.

Several aspects of Russian efficiency and productivity have been examined by ERS, including production efficiency, market price responsiveness, yield performance, and overall agricultural productivity growth. Some of this research is still under review, but some has been formally published (Sedik, Trueblood and Arnade, 1999; Arnade and Munisamy, 2000). Much of this analysis can be viewed as reflecting on the overall effect of the reform process. Increasing efficiency or productivity indicators would suggest that reform has improved agricultural conditions and is having the desired effect, whereas decreasing indicators would suggest that conditions have deteriorated.

Each of the studies has found that the various measures of efficiency and productivity have declined during 1991-95, suggesting that reform has led to deteriorating conditions. For example, it was found that overall production efficiency declined; several crop yields, including wheat, have declined (more on this in the following section); pricing efficiency has declined; and overall productivity growth has declined.[6]

Consider one study that examined production efficiency (Sedik, Trueblood and Arnade, 1999). Production efficiency involves the physical relationship between output and input. Efficiency is usually measured on a percentage basis, so that a score of 0.70, for example, would mean that a farm should have been able to obtain 30 percent more output than it actually achieved, given input levels. Using two different and commonly accepted methodological approaches, it was shown that production efficiency declined from an average of 0.91 to 0.76 during 1991-95. This means that for given input levels, corporate farms in Russia should have been able to obtain 9-24 percent more from their inputs. For example, in 1994, taking these measurements and assuming that they apply proportionally to the wheat sector, output could have been increased by 21 percent (from 33 to 40 million tons). Under these methodologies, the efficiency measurements are made only on the basis of best practice techniques within Russia; if it had been possible to compare across countries, it is very likely that the results would have been lower.

The study on production efficiency is particularly useful since it went a step further to quantify important institutional and economic factors that help explain why efficiency declined. Among some of the more important factors were:

- ***Farm size.*** Russian corporate farms on average are about six times larger than the largest farms in the United States. Regions with the largest farms tended to be less efficient, in part related to what appeared to be labor shortages. The interpretation would appear to be that there are limits to economies of scale, even in a land-rich country like Russia. An institutional reform that would help address this problem is land reform. This would not only allow producers to address the scale issue, but would be useful in the development of credit markets if land could be used as collateral. This in turn would help with investment and long run productivity. However, land reform legislation allowing private ownership has stalled in the Russian Parliament.
- ***Self-sufficiency efforts.*** Fear of food shortages has prompted many local officials and governments in Russia to pass laws that are clearly unconstitutional at the national level that prohibit agricultural outflows. This has encouraged self-sufficiency efforts by farm managers in each oblast and is reflected in high crop diversity measurements that were found to lead to production inefficiency. Production efficiency could be much improved if farms specialized in crops that are well suited to their regions and then traded with other regions.
- ***"Soft budget constraints."*** Farm managers continue to receive subsidies or debt forgiveness after unprofitable growing seasons, often referred to as the "soft budget constraint." Regions with the highest levels of subsidies were shown to be ones with the lowest efficiency levels. Until managers are held accountable for losses, the system will not be reformed.
- ***Output of small private plots.*** On the face of it, this factor might not appear that important. However, the study showed that in some regions, small private plot output rose while the corporate farm production efficiency levels declined, particularly in regions that had low efficiency levels at the beginning of reform. The interpretation

[5] This includes output on subsidiary private plots that is tied to the corporate farms.

[6] It should be noted that prior to reform, there were incentives for managers to overstate output, while the reverse is true today. However, misreporting is not considered to be a serious problem in the agricultural sector, where data for such items as area sown and yields are considered to be accurate.

would appear to be that workers took steps to ensure their personal survival while the corporate farms came under disrepair, or that workers contributed to the disrepair by pilfering supplies, a phenomenon that has been well documented in the past.

- ***State marketing channels.*** The study found that corporate farms that sent their output through the old official state market channels were actually more efficient. Developing additional market channels will take time and effort that might contribute to production inefficiency in the short run but lead to improvements in the long run.

Russian Wheat Yield Trend Analysis

Many of these problems are more evident when one examines yield trends in Russia. Recently, ERS has been examining yields for crops that are important to Russia, including wheat. The research has focused first on whether there has been yield convergence over time for the largest producers in the world, which would tend to indicate whether international agricultural technology has spread to other countries. The research then has specifically examined Russian yield trends in comparison to the world yield leaders. Highlights from this research are presented below.

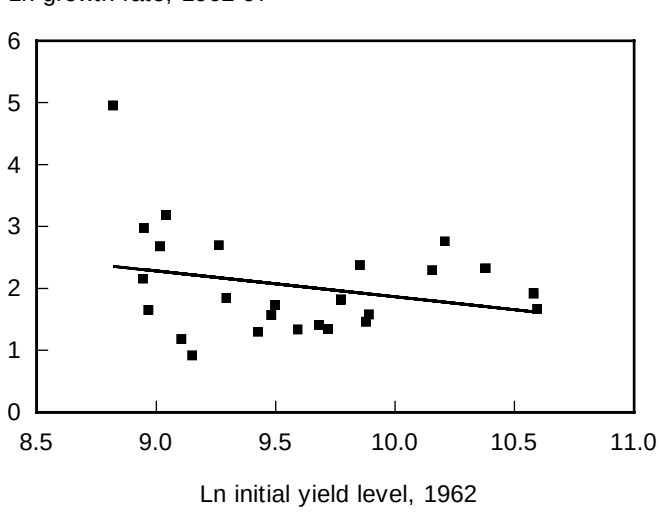
One approach to testing for yield convergence is known as β-convergence.[7] This measure refers to the parameter that is estimated from statistical linear regression analysis, that is, fitting a line through a group of observations. The intuition behind this approach is that laggard countries that start with relatively low yield levels would be converging (or catching up) to the leaders, which tend to grow more slowly when on or near the technological frontier, if the laggards display higher growth rates than the leaders.

Figure A-1 shows the trend line for wheat β-convergence. Globally, there is strong evidence that yields have converged for the top 25 producing countries. The linear regression model testing for β-convergence shows that the β coefficient is statistically significant with a sign that indicates that there has been convergence.

To understand how well Russia's yield trends performed in comparison to the leaders, its yields and growth trend were analyzed separately. Absolute yield differences between Russia and the global yield leaders were calculated for three time periods: the initial period, 1961-63; the period just prior to the Soviet breakup, 1989-91; and the most recent period for which data are available, 1996-98 (table A-1). In addition, growth rates were calculated to help gauge the

Figure A-1

Global wheat yield convergence, 1962-97



Source: Economic Research Service, USDA.

degree of yield convergence or divergence. The global yield leaders were selected on the basis of most recent period yields (1996-98 averages).[8]

Russia was slowly gaining ground on the global wheat yield leaders through the Soviet period, 1962-1990. However, after the reform period began, the wheat yield growth rate became negative (table A-1, seventh column). Given that the global wheat yield leaders continued to display positive growth rates, the gaps between these countries and Russia widened again (compare columns 1 and 3 in table A-1). In fact, the yield gap between Russia and the global yield leaders *was wider in 1997 than it was in 1962*. In short, the yield convergence gains that were achieved during 1962-1990 have completely evaporated. This pattern occurred not only for wheat, but also for most of the other crops that were examined (corn, rye, sugar beets, and sunflowers), reinforcing this finding.

Some might argue that it is inappropriate to compare Russia with other leading yield countries, such as those in Europe that have different resource endowments and climates, use intensive production practices, and are driven by strong policy incentives. To address this concern, Russian yields are compared with those of four other land-rich countries: Argentina, Australia, Canada, and the United States. The yield patterns are shown graphically in figure A-2, which displays yield trends in logarithms to emphasize the relative rates of growth. The figure shows that Russia was closing

[7] These approaches are borrowed from recent macroeconomic literature measuring convergence of per capita income levels across countries and have been used as a test to confirm or refute different types of growth models. An important part of this literature is trying to understand the role that technology and spillovers have in stimulating economic growth through education, research and development, and physical capital accumulation. The parallels to yield analysis are straightfoward.

[8] For each commodity, the top five countries with the highest yields were selected and their yields averaged. In most cases, most of the five countries were also beginning period (1962) yield leaders as well.

Table A-1--Comparisons of Russian crop yields relative to world leaders

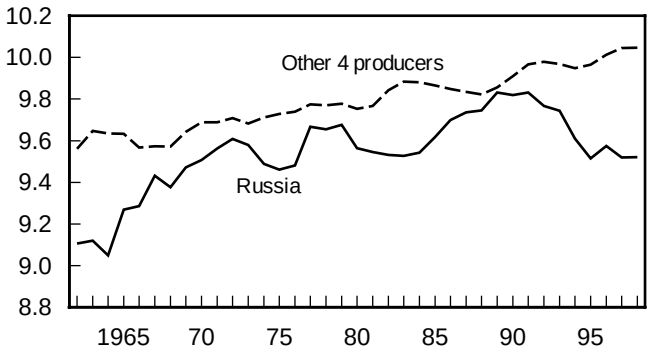
Commodity	Russian yields relative to top five			Yield growth rates				Conclusions	
				Top five		Russia		1962-1990	1990-1997
	1962	1990	1997	1961-91	1991-98	1961-91	1991-98		
	Ratios			Percent per year					
Crop:									
Wheat	0.27	0.29	0.19	2.38	1.28	2.55	-4.28	N	D
Maize	0.53	0.42	0.22	2.87	2.95	2.02	-6.46	D	D
Rye	0.33	0.38	0.25	1.98	2.02	2.46	-4.01	C	D
Sugar beets	0.27	0.36	0.23	1.60	1.20	2.64	-5.53	C	D
Potatoes	0.35	0.29	0.25	1.39	2.57	0.79	0.41	D	D
Sunflowers	0.64	0.57	0.36	1.82	-1.27	1.36	-7.81	C	D

Conclusions key:
C - Converging or catching up.
D - Diverging or falling behind.
N - Neutral, kept pace.

Top five yield leaders selected for each crop based upon 1996-98 averages:
Wheat: United Kingdom, Germany, Denmark, France, Egypt.
Maize: Italy, Spain, France, Germany, United States.
Rye: Switzerland, United Kingdom, The Netherlands, Germany, Denmark.
Sugar beets: France, Switzerland, Belgium-Luxemburg, Chile, Austria.
Potatoes: Belgium-Luxemburg, The Netherlands, United Kingdom, Germany, Denmark.
Sunflowers: Austria, France, Italy, Czechoslavkia (former), Argentina.

Figure A-2

Comparison of Russian yield trends with other major wheat producers with similar endowments



Data are 3 year center moving averages. Other 4 include Argentina, Australia, Canada, and United States.

Source: Foreign Agricultural Service, USDA.

the yield gap prior to reform. After reform, Russian wheat yields declined as yields in the other countries moved ahead.

It is not entirely clear why Russian yields have fallen in the reform period. However, one important explanation may be that Russian producers achieved the earlier yields by overusing fertilizers, which were heavily subsidized in the Soviet period. These subsidies have been removed in the reform era, leading to very high and sometimes unaffordable fertilizer prices and forcing farm managers to cope with alternative production practices. Other related factors also may have had a cumulative impact on yields, including soil nutrient depletion as fertilizer use has dropped, increasing pest and weed problems from lack of plant protecting agents, and accelerated topsoil erosion. In addition, many of the institutional issues discussed previously probably were important contributing factors.

Conclusions

Nearly a decade has passed since Russia began its political, economic, and agricultural reforms. The primary agricultural reform question that arose back then is still with us to some extent today: will Russia be able to reform its agricultural system and raise overall productivity? Increasingly, the answer appears to be that this will not occur in the short or medium run. Several measures of efficiency and productivity for the early years of reform for which data are available suggest that conditions have worsened.

It is true that some studies use data that are only available through 1995 and have not allowed for a possible rebound effect. However, recent anecdotal evidence suggests that the situation is only getting worse. There have been several changes at the top of the Russian political leadership in recent years, adding to instability. There has been no significant legislation in recent years, such as concerning land reform or credit market development, that would promote agricultural reform.

The major implication from this analysis is that Russia's agricultural production may rebound some from drought in 1998 and 1999 but will remain mostly stagnant for the foreseeable future. This means that Russia is unlikely to be a major wheat exporter in the short or medium term. A more

likely outcome is that Russia will continue to import wheat, mostly from other countries of the former Soviet Union.

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EU Enlargement: Impacts on CEE Wheat Markets

Nancy Cochrane[1]

Abstract: This article presents analysis of the potential impact of EU Enlargement on Central and East European (CEE) wheat markets. The analysis focuses on Poland, Hungary, and the Czech Republic, three of the CEE countries most likely to join the EU in the near future. ERS model results suggest that enlargement under Agenda 2000 assumptions may actually reduce wheat surpluses in the CEE countries, principally because wheat prices in Poland and the Czech Republic had risen above the Agenda 2000 wheat price in 1998, the base year used in the model. However, the ultimate impact on CEE wheat markets will also depend on developments in the livestock sectors, other field crops, and CEE land and labor markets.

Keywords: Poland, Hungary, Czech Republic, Central and Eastern Europe, wheat, grains, EU enlargement, Agenda 2000

Introduction

Negotiations between the European Union and five of the Central and East European (CEE) countries on the terms of eventual accession to the EU began in March 1998. Those five were Poland, Hungary, the Czech Republic, Slovenia, and Estonia. In November 1999 the EU agreed to open negotiations with five other CEE countries as well—Slovakia, Romania, Bulgaria, Latvia, and Lithuania.

Official statements still name 2002 as the target date for accession by the first five. Unofficial reports from both the EU and the CEE countries name 2006 as a more realistic date. Before they can accede to the EU, the CEE countries must revise their entire body of laws and regulations to conform to those of the EU, and many people doubt they will be able to do this by 2002. However, it is a near certainty that at least some of the CEE countries will join the EU within the next 10 years.

Prospects of EU enlargement raise some important questions for world wheat markets. Hungary and Romania are consistently surplus producers. The Czech Republic, Slovakia, and Bulgaria have been surplus producers in some years. Even Poland has exported wheat in some years. Since the beginning of the transition, wheat prices in most of the CEE countries have been generally below world levels and were substantially below the EU intervention price in most years.[2] Even the reduced wheat price under the EU's Agenda 2000 is above the market prices in most of the CEE countries. Principal exceptions were Poland and the Czech Republic, where wheat prices rose above the EU intervention price in 1998.

ERS analysis suggests that enlargement could actually lead to reduced wheat surpluses in the CEE countries.[3] Hungarian wheat prices have consistently been under the EU intervention prices and are also below the price proposed in Agenda 2000. Thus Hungary could expand production and exports after accession. Polish and Czech wheat prices, on the other hand, are above the Agenda 2000 prices, so that production could decline in these two countries after enlargement. In addition, without significant quality improvements, much of the CEE wheat production will not qualify for EU intervention, which could further depress output.

However, net wheat trade in an enlarged EU will also depend on developments in other field crops and the livestock sector. ERS model results show significant increases in CEE prices of corn and barley, leading producers to substitute these crops for wheat. In the livestock sector current CEE prices for all livestock products are 20 to 30 percent below those of the EU. This would suggest significant rises in CEE pork and poultry output, thus increasing demand for wheat as feed. But the need to meet high EU quality standards will raise CEE production costs, so that CEE livestock output may not increase as much as the price gaps would suggest. In this case the CEE countries could remain net wheat exporters even with reduced output.

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[2] The EU intervention price is a market floor price that triggers intervention in order to support the market price. Farmers are able to sell their products to the intervention authorities at an annually adjusted intervention price. Products sold must meet minimum quality standards to be accepted into intervention stocks.

[3] Cochrane, Nancy. "Enlargement to the East." *The European Union's Common Agricultural Policy: Pressures for Change*, International Agriculture and Trade Report, Economic Research Service, U.S. Dept. Ag. WRS-99-2. October 1999.

EU's Agenda 2000 Calls for Limited Price Reductions

The EU's Agenda 2000, finalized in March 1999, is a set of reforms that aims to reduce the scope of EU intervention. The reforms were adopted with the goal of reducing EU budgetary expenditures and also as a first step in preparing for eventual enlargement. The reforms call for reductions in support prices for crops, oilseeds, and beef, and partial compensation to producers for the price declines through direct payments.

The key provisions of Agenda 2000 are:

- a 15-percent reduction in support prices of grains, phased in during 2000 and 2001, to be partially offset by increases in direct payments;
- a 33-percent reduction in direct payments to oilseed producers, implemented over 3 years, so that by 2002 the payment will be equal to the direct payment to grain producers;
- a 10-percent minimum set aside for cropland for 2000-06; and
- a 20-percent reduction in the support price for beef, to be phased in over 3 years and offset by direct payments.

Under this formula the EU intervention price for wheat, corn, barley, and rye would be set at 101 euro per ton in 2002.

For more details on Agenda 2000, see David R. Kelch, "EU's Agenda 2000 & Beyond," Agricultural Outlook*, Economic Research Service, U.S. Dept. Ag,. October 1999.*

A second consideration is demand side effects on enlargement on the CEE economies. ERS analysis suggests that in the initial years of accession, the sudden rise in consumer food prices will lead to a significant contraction in demand. However, accession will almost certainly attract new investment to the acceding CEE countries. In addition, the EU is already providing large amounts of assistance for infrastructure development, and this assistance will continue after enlargement. The inflow of investment and the EU structural assistance can be expected to have a significant, positive effect on GDP, leading to a strengthening of demand for grains and livestock products.

A final consideration is that accession will likely lead to important shifts in the primary factor (land, labor, and capital) markets in the CEE countries. The same inflow of investment and structural assistance could put upward pressure on wages and land prices, while making capital more readily available. These fundamental shifts could alter the eventual structure of CEE output.

Some Background: The Wheat Situation In the CEE Countries

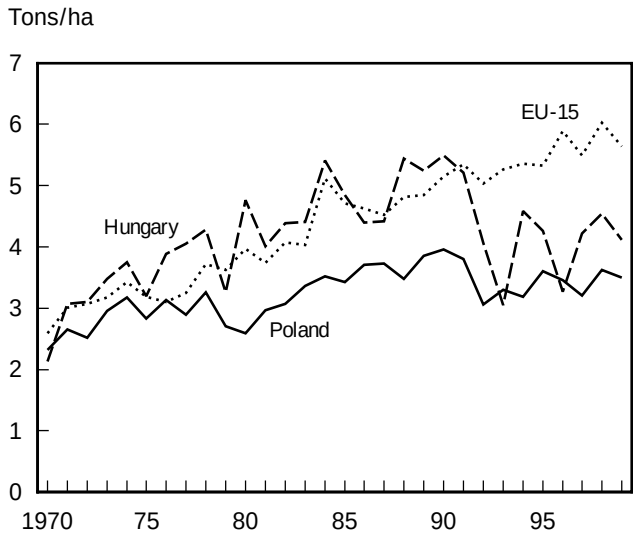
The largest wheat producers among the CEE countries are Poland, Romania, Hungary, the Czech Republic, and Bulgaria, in that order. Of those, Romania and Hungary are consistently surplus producers. The Czech Republic and Bulgaria have been small net exporters in most years, while Poland is usually a net importer. During the 1990's there have been relatively large shifts in production from year to year, brought about by variations in weather. The result has been considerable variation in the net trade status of these countries.

Market reform brought serious changes to the CEE wheat sectors. During the 1980's, the last years of the Communist period, yields showed a general upward trend. Yields in Hungary and the former Czechoslovakia were very close to EU yields (figure B-1). Even in Poland, where yields were lower because of the dominance of small, private farms, there was a slow upward trend in wheat yields. But this was mainly the result of generous government subsidies for fertilizers and other inputs. With the elimination of government subsidies and the sudden exposure to competition from the world market, producers experienced an abrupt rise in input prices and simultaneous drop in output prices. Producers responded by sharply curtailing their use of chemical inputs. As a result, yields fell precipitously and became much more variable after 1990.

Demand fell as well. Food demand for wheat has been relatively inelastic and has not changed much. However, feed

Figure B-1

Wheat yields in Poland, Hungary, and the EU-15



Source: Economic Research Service, USDA.

use has declined because of declining livestock inventories. As a result, the CEE countries together have maintained their net export position in most years since 1990.

Most of Eastern Europe has seen a sharp decline in area planted to wheat in the last 2 years (figure B-2). The most drastic decline occurred in Hungary, where area harvested in 1999 was 38 percent below that of 1998. Wheat area in Romania and Bulgaria has also declined significantly. These declines were a response in part to falling world prices and in part to poor weather conditions during sowing. Preliminary reports from several of the CEE countries suggest a slight increase in area planted during the fall of 1999 for crops to be harvested in 2000.

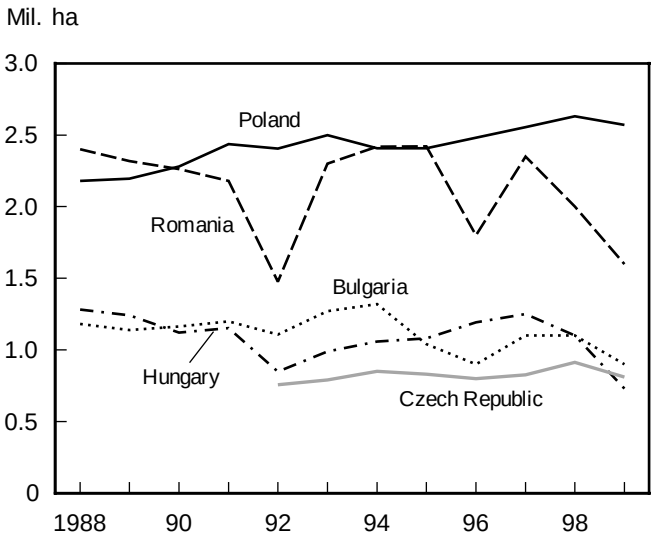
The principal exception is Poland, where wheat area has changed very little during the transition. In fact, there has been a slight upward trend. This trend is principally the result of extensive intervention on the part of Poland's Agricultural Market Agency (AMA). The AMA maintains a relatively high minimum price for wheat, which is supported through intervention purchasing and high import tariffs. Figure B-3 illustrates the extent to which Poland's intervention in the wheat market has insulated producers from the world market. Whereas Hungarian prices track the U.S. Gulf price fairly closely, Polish prices do not and at times have risen above the Gulf price. Polish prices have also occasionally exceeded the EU intervention price (figure B-4).

Model Results Show Increase in Net CEE Wheat Imports

ERS recently modeled the impact of Agenda 2000 plus EU enlargement on production and trade of grains, oilseeds, and livestock of the CEE countries and the enlarged EU.

Figure B-2

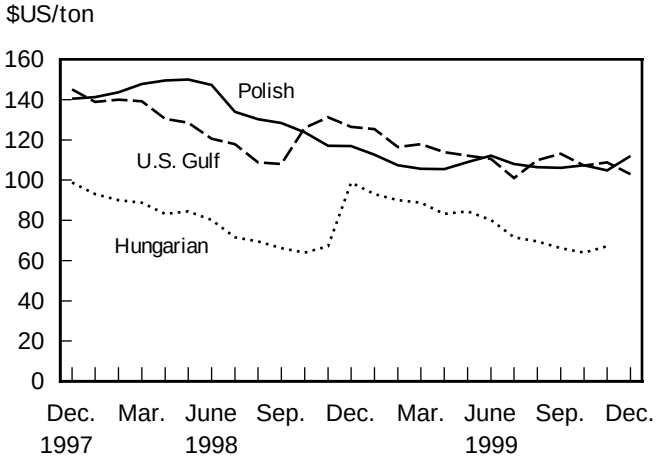
CEE wheat area during the transition



Source: Economic Research Service, USDA.

Figure B-3

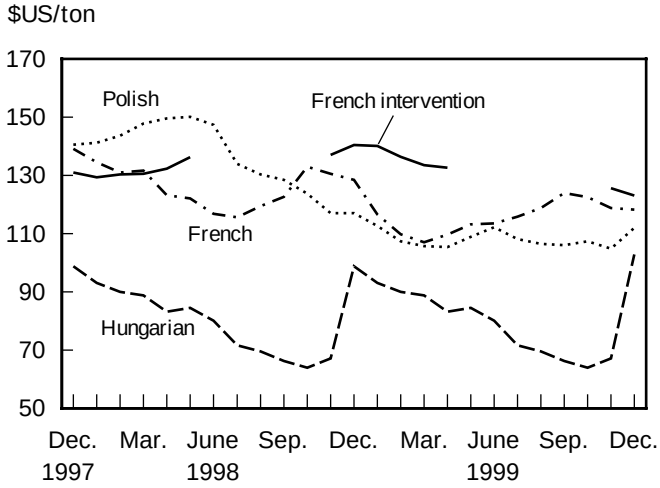
Wheat prices: Poland and Hungary compared with U.S. Gulf



Source: Economic Research Service, USDA and Polish and Hungarian Statistical Bulletins.

Figure B-4

Poland and Hungarian wheat producer prices compared with French



Source: Agra Europe, Polish and Hungarian Statistical Bulletins.

The CEE countries included in the analysis were Poland, Hungary, and the Czech Republic, since these are the most likely to accede to the EU in the coming decade. In the longer run, Romania will also be of interest. Romania has some of the richest soil in Eastern Europe and has the potential to generate very large surpluses with the right set of incentives. However, Romanian yields have been among the lowest in the region due to the country's fragmented farm structure and the slow pace of market reform. Precisely because of the slow pace of reform, it will be several years still before Romania will be a serious candidate for accession.

The analysis included two scenarios: Agenda 2000 without enlargement and Agenda 2000 with enlargement. In each case the 1999 USDA Baseline was used as the base scenario.[4] Results from Agenda 2000 without enlargement are shown in order to enable the reader to isolate the effects of enlargement from those of Agenda 2000 alone.

The key assumptions underlying the analysis were:

- the CEE countries will immediately adopt the EU's Common Agricultural Policy (CAP) in 2002, since that is still the official target year for accession, with no transition period. Thus in that year, CEE prices will adjust to the prices laid out in Agenda 2000. For the model run the Agenda 2000 prices were converted to U.S. dollars according to the exchange rate in effect in July 1999.
- CEE producers will receive the same compensation payments and will be subject to the same set-aside requirements as their counterparts in the EU-15.
- CEE producers will be subject to the EU dairy quota, which was fixed at milk production for each of the CEE countries in 2001, as projected in the 1999 USDA Baseline. The dairy quota also constrains CEE beef production, as more than half of the beef produced is a product of the dairy herd. The cap on beef output has implications for demand for wheat as feed.

To understand the results, it is helpful to compare the 1998 producer prices in the CEE countries and the EU-15 (table B-1). Three factors influence the model results:

- Despite wide gaps between CEE and EU wheat prices that existed in the early 1990's, there has been some convergence of CEE and EU prices in more recent years. In fact, in 1998, the base year of the model, wheat prices in Poland and the Czech Republic, thanks to their domestic intervention schemes, had risen above the Agenda 2000 wheat price for 2002.
- In all the CEE countries, prices of barley, corn, and other coarse grains were substantially lower than the price of wheat. The scenario thus brings greater price increases for coarse grains than for wheat.
- CEE livestock prices were substantially below those of the EU.

In the CEE countries, Agenda 2000 without enlargement brings declines in grain prices of 2 to 5 percent against the baseline in 2005 (table B-2). Under this scenario it is assumed that CEE price and border policies remain constant and world prices are fully transmitted to the domestic market. There are small declines in production and small increases in consumption, and the impact on net trade is marginal.

Enlargement, however, brings some dramatic changes in CEE grain prices, and the CEE response to those changes has important implications for the EU-18. Enlargement causes wheat prices to rise 43 percent over the baseline in Hungary, while wheat prices fall in Poland and the Czech Republic. Corn and barley prices fall in Poland, but not as much as wheat prices. Prices of corn and barley rise in Hungary and the Czech Republic, and in Hungary price increases for these two grains are greater than those for wheat. In response, producers in all three CEE countries switch from wheat to corn and barley. The result is that wheat output declines in Hungary, even with the price increase (table B-3).

Hungarian wheat exports rise despite the output decline, because domestic demand falls more than output (table B-4). However, Poland and the Czech Republic become large net wheat importers. Increased imports by Poland and the Czech Republic more that offset the rise in Hungarian exports. In 2005/2006 the three CEE countries switch from net exporters of 859,000 tons under the baseline to net importers of 1.7 million tons.

As a result, the EU-18 sees a 6-percent decline in its net wheat surplus, so that pressure on world wheat markets is actually reduced.

But There Are Important Caveats

One must interpret these results with some caution, however, as a number of factors not captured by the model could alter them. The four principal factors discussed below are uncertainties about the response of the livestock sector, quality issues, GDP growth that could come as a result of new investment and EU structural assistance, and the changes in CEE land, labor, and capital markets that could come about with accession.

Feed demand. An important reason for the dramatic reduction in net wheat exports under the enlargement scenario presented above is an increase in wheat feeding. According to these results, enlargement leads to significant rises in pork and poultry output and a consequent rise in demand for feed. Much of the increased feed demand is met through higher oilmeal imports. But livestock producers in all three of the CEE countries increase wheat feeding as well, as they substitute wheat for more expensive corn and barley.

There are a number of reasons, however, why pork and poultry output may not rise as much as the model results suggest. Livestock producers will have to comply with a formidable array of EU regulations regarding product quality and animal welfare, and compliance will raise production costs. Moreover, part of the gap between CEE and EU live-

[4] World Agricultural Outlook Board. *USDA Agricultural Baseline Projections to 2008*. Office of the Chief Economist, U.S. Department of Agriculture. Staff Report No. WAOB-99-1. February 1999.

Table B-1--1998 CEE prices compared with EU Agenda 2000 prices

Commodity	EU Agenda 2000 price 1/	Czech Rep.	Hungary	Poland
		Dollars/ton		
Wheat	113.47	119.33	72.28	130.19
Barley	113.47	104.29	63.88	110.81
Corn	113.47	104.29	65.28	95.50
Other coarse grains (rye)	113.47	104.29	65.28	95.50
Cattle, beef & veal	1,560.71	1,051.81	984.38	689.00
Hogs: live weight	1,292.90	1,037.30	1,058.52	975.00
Poultry (ready to cook)	1,182.60	797.22	909.77	989.00

1/ Prices to be in effect in 2002, under Agenda 2000. These were specified in Euro (101 euro per ton for grains) and converted to dollars according to the exchange rate in effect in July 1999, when the model runs were completed.

Table B-2--CEE price changes, 2005/2006: Agenda 2000 and enlargement

Commodity	Agenda 2000 without enlargement			EU enlargement		
	Poland	Czech Rep.	Hungary	Poland	Czech Rep.	Hungary
			Percent change from 1999 USDA Baseline			
Wheat	-5.00	-5.00	-5.07	-19.72	-1.52	42.56
Barley	-4.79	-4.19	-4.19	-7.58	10.94	64.52
Corn	-1.66	-1.66	-1.66	-5.95	12.21	62.83
Other coarse grains	-3.12	-2.16	-1.71	10.63	10.38	-6.22
Oilseeds	-2.49	-2.49	-2.49	-5.91	9.40	-4.12
Oilseed meal	-3.67	-3.67	-3.67	-10.28	17.26	-4.25
Beef & veal	2.37	2.37	2.37	106.50	48.34	43.95
Pork	-1.04	-1.04	-1.04	30.71	30.88	19.26
Poultry meat	-1.24	-1.24	-1.24	13.60	54.54	23.00

Table B-3--Hungary, Poland and Czech Republic: Changes in production and consumption of key products 2005/2006

Commodity	Agenda 2000 without enlargement		EU enlargement	
	Production	Consumption	Production	Consumption
		Percent changes from 1999 baseline		
Wheat	-1.79	1.89	-9.01	6.18
Coarse grains	-0.33	-0.30	3.48	-8.58
Barley	-1.32	0.69	1.93	-2.61
Corn	0.52	-1.89	5.93	-29.04
Other	-0.19	-0.18	3.21	-3.38
Oilseeds	-0.67	0.04	-17.60	-1.57
Oilseed meal	0.08	-0.49	-1.46	19.06
Beef & veal	0.91	-0.74	-0.34	-13.09
Pork	0.35	0.44	8.37	-1.90
Poultry	0.28	0.36	3.75	-1.89

stock prices is due to the lower quality of CEE animals, and the model does not account for quality differentials. For these reasons, CEE livestock producers may not respond so positively to the higher prices that will come with accession. If livestock production does not rise as much as projected, feed use and imports of wheat will be correspondingly lower than the model results suggest.

Quality. This is an issue for wheat as well as for livestock products, particularly in the case of Poland. Much of Poland's wheat crop is not of good milling quality and qualifies as feed wheat. Unless this situation changes, much of the Polish wheat crop will not be eligible for intervention after accession, and average wheat prices in Poland will be even lower than projected. In addition, once there are no border controls between Poland and its western neighbors, Polish millers will be able to buy Hungarian, French, or German wheat rather than Polish wheat. Thus, without significant efforts to raise wheat quality, Poland could experience an even greater contraction of its wheat sector after accession.

Demand side impacts of accession. The model did not incorporate any adjustment in CEE income. It was assumed that income projections assumed in the 1999 Baseline (growth of about 4 percent per year) would not be significantly altered in the short run by accession. But in the medium term, accession could have a strong positive impact on consumers' incomes. The enlarged EU will almost certainly attract new investment, and the EU is already providing generous support to infrastructure development in the

Table B-4--Hungary, Poland and Czech Republic: Changes in net trade of key products, 2005/2006

Commodity	Baseline	Agenda 2000 without enlargement	Agenda 2000 with enlargement
		1000 metric tons	
Wheat	838	203	-1,791
Coarse grains	-1,441	-1,445	2,059
Barley	-951	-1,105	-593
Corn	-217	-65	1,955
Other	-274	-275	696
Oilseeds	105	88	-277
Oilseed meal	-1,845	-1,829	-2,446
Beef & veal	69	83	171
Pork	249	247	572
Poultry	-19	-20	43

CEE countries. The result should be a significant increase in these countries' GDP. The direct impact of rising income on food use of wheat will not be large, because wheat demand is relatively inelastic. But there could be a rise in demand for livestock products, which in turn will stimulate greater feed demand.

Changes in primary factor markets. Accession will also bring some significant changes in the markets for land, labor, and capital, which could significantly affect the structure of CEE agriculture. CEE agriculture is now highly labor intensive because wage rates are low, and capital and other inputs are relatively expensive. Wages could rise significantly after accession. If labor is fully mobile throughout the enlarged EU, there will be a tendency towards convergence of EU and CEE wages. Moreover, the EU is offering several billion dollars of infrastructure support both before and after accession. These funds could generate more employment in the CEE countries, putting upward pressure on wages. Higher wages will draw much of the labor out of agriculture and should lead to consolidation of farms.

Land prices will also increase. Some CEE officials have expressed the desire to retain some restrictions on land purchases by citizens from other EU countries during a transition period. Eventually, however, all EU citizens will have to have the right to purchase CEE land. Higher land prices brought about by increased demand would affect the production of all field crops, leading to more input-intensive production. According to the model results, CEE grain yields remain substantially below those of the EU after accession, reflecting a continuation of current land-extensive production practices. With higher land prices, these practices will no longer be economically rational.

As labor and land become more expensive, producers will substitute more capital and material inputs, and the result could be significantly higher yields. Wheat yields in Hungary and the Czech Republic could approach their pre-1990 levels. With a higher level of investment, Polish wheat producers could raise the quality of their output.

Conclusions

It is clear that more research is needed before we can make any definitive statements about the impact of EU enlargement on the CEE wheat sectors. ERS model results suggest that contrary to earlier expectations, EU enlargement could bring about a decrease in exportable wheat surpluses. Other forces, not captured in the model, could mitigate those declines.

The New Agricultural Trade Negotiations: Background and Issues for the U.S. Wheat Sector

Erik Dohlman and Linwood Hoffman[1]

Abstract: New negotiations on trade in agriculture were recently initiated by the World Trade Organization (WTO). It is likely that these negotiations will focus on issues previously addressed by the Uruguay Round Agreement on Agriculture (URAA), which placed limits on the use of tariff and non-tariff barriers to trade, export subsidies, and the type and level of spending countries are permitted on domestic support programs. These disciplines restrict the ability of member countries to use trade-distorting policies, but for U.S. wheat producers, the agreement has not been accompanied by an increased volume of exports or share of world trade. Consequently, U.S. objectives for the upcoming negotiations include further reducing tariffs and improving market access, eliminating and prohibiting the use of export subsidies, and placing further limitations on trade-distorting domestic support programs.

Keywords: Wheat, trade, policy, WTO, market access, tariffs, tariff-rate quota, export subsidy, domestic support

Introduction

New multilateral agricultural trade negotiations under the World Trade Organization (WTO) were recently initiated. During these negotiations, officials from WTO member countries will work to continue the process of reforming agricultural trade rules begun in the Uruguay Round, which concluded in 1994.

The global wheat market is very reliant on trade, with about 20 percent of global production and nearly one-half of U.S. production destined for export, but it is also heavily influenced by a range of trade-distorting policies. Under WTO agreements, the maximum allowable ("bound") tariff rates on wheat are still potentially prohibitive among some major consuming and importing countries, although applied rates are often much lower than those allowed. Domestic farm programs, export subsidies or taxes, sanitary and phytosanitary measures, and state trading also have the potential to distort trade. With about 7.5 percent of U.S. agricultural export revenue coming from the sale of wheat, the U.S. wheat sector is naturally interested in the outcome of the new round of agricultural trade negotiations.[2] This article identifies and discusses issues affecting global trade in wheat that are likely to be considered during the negotiations. Other issues related to wheat trade, such as the U.S.-China agreement on China's WTO accession and potential disciplines on state trading enterprises (STEs) are also covered. As an introduction, the importance of trade to U.S. wheat producers and the U.S. position in global markets are reviewed.

Production and Trade in the U.S. and Global Wheat Market

In 1998/99, wheat production represented about one-fifth of total U.S. grain output by volume, and the value of U.S. wheat production averaged about $8.6 billion each year between 1995/96 and 1998/99.[3] With about 45 percent of U.S. wheat being sold to foreign markets, exports represent a crucial source of demand for U.S. wheat producers, and wheat exports also make a large net contribution to the U.S. agricultural trade surplus. Wheat accounts for about 7.5 percent of all U.S. agricultural exports by value, and the United States has averaged about a $4.4-billion trade surplus in wheat between fiscal 1996/97 and 1998/99 (nearly one-fifth of the trade surplus recorded by U.S. agriculture during those years). Over 50 percent of U.S. wheat exports are destined for the top seven importers of U.S. wheat, but U.S. wheat exports are otherwise widely dispersed (table C-1).

U.S. exports of wheat flour are modest compared with unmilled wheat, averaging just under $140 million per year (fiscal 1996-98). Wheat flour exports are limited, in part, because many importing countries choose to import wheat grain for milling by domestic enterprises. Ocean shipping of flour is more likely to incur spoilage and, as a processed good, flour is often subjected to higher tariffs than those

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[2] A glossary of terms can be found in USDA (1996) and Nelson (1997).

[3] Among U.S. grains, the average (1995/96-98/99) value of wheat production ranks second to corn ($22.7 billion), and ahead of all other grains combined. Sources: USDA, WASDE, 12/99; USDA, *Crop Values* (1998 and 1999 Summaries).

Table C-1--U.S. wheat and product trade by major destination or source country (1996-98 average)

Item and Destination	U.S. exports		Source	U.S. imports	
	Value	Share of U.S. exports		Value	Share of U.S. imports
	Million dollars	Percent		Million dollars	Percent
Wheat1/					
Egypt	609	13.0	Canada	291.3	99.7
Japan	554	11.8	Other	0.8	0.3
Philippines	288	6.1	Total	292.1	100.0
Pakistan	287	6.1			
S. Korea	256	5.5			
Mexico	238	5.1			
EU15	198	4.2			
Taiwan	176	3.8			
China	176	3.8			
Nigeria	136	2.9			
Israel	118	2.5			
Venezuela	107	2.3			
Morocco	78	1.7			
Other	1,465	31.3			
Total	4,686	100.0			
Wheat flour 2/					
Haiti	38.5	30.0	Canada	38.6	93.5
Mexico	13.5	9.8	Other	2.7	6.5
Bosnia-Herc.	8.5	6.1	Total	41.3	100.0
Peru	7.6	5.5			
Bolivia	6.9	5.0			
Canada	6.2	4.5			
Russia	5.9	4.3			
Other	50.5	36.7			
Total	137.6	100.0			
Other wheat products 3/					
Canada	37.6	56.8	EU15	187.0	55.7
Japan	9.3	14.1	Canada	39.7	11.8
Russia	3.9	5.9	Australia	30.0	8.9
Mexico	3.2	4.8	China	13.7	4.1
EU15	1.9	2.9	Mexico	13.0	3.9
Other	10.3	15.6	Other	52.6	15.7
Total	66.2	100.0	Total	336.0	100.0

1/ All classes. Export category is “unmilled wheat’; Import category is “Wheat, excluding seed.”

2/ Export category is “wheat flour.” Imports include wheat or meslin flour and durum wheat flour.

3/ Exports includes wheat starch, gluten, doughs and mixes, and pastas. Imports include uncooked, unstuffed pastas, wheat starch and wheat gluten.

Sources: USDA, Economic Research Service, Foreign Agricultural Trade of the United States (FATUS), 1996 through 1998 calendar years average.

imposed on whole wheat – a situation known as tariff escalation. In addition, U.S. flour exports are limited by competition from the EU, by far the largest wheat flour exporter, which heavily subsidizes its exports. Although starting from a low base, U.S. exports of other processed wheat products, such as pastas, starch, gluten, and doughs and mixes have more than doubled in the 1990’s, but the United States has averaged a trade deficit of roughly $270 million in recent years for these products (table C-1).

U.S. imports of wheat are small compared with exports, but the United States is the world’s eleventh largest wheat importer (1996-98). U.S. wheat imports, consisting mainly of durum and hard red spring wheat from Canada, have grown from an average of under 550,000 metric tons per year in 1986-88 to over 2.6 million metric tons per year during 1996-98. Imports of other wheat products consist mainly of pasta and noodles from the EU, Canada, and Asia, and wheat gluten from the EU and Australia (FATUS).

In the context of global markets, the United States is the world’s leading wheat exporter, and for 1996/97 – 1998/99 ranked third in wheat production. China, the European Union, the United States, India, Russia, and Canada produce over two-thirds (69 percent) of the nearly 600 million metric tons of global wheat output, and the United States, Canada, Australia, EU, and Argentina account for over 85 percent of world wheat exports (table C-2).

Table C-2--Major world wheat producers, exporters, and importers (1996/97-1998/99 average)1/

Leading producers (Volume and share of world production)			Leading exporters (Volume and share of world exports)			Leading importers (Volume and share of world imports)		
	1,000 mt	Percent		1,000 mt	Percent		1,000 mt	Percent
China	114,533	19.3	U.S.	27,977	27.3	Egypt	7,116	6.9
EU15	98,574	16.6	Canada	18,113	17.7	Brazil	6,311	6.2
U.S.	66,280	11.2	Australia	16,856	16.4	Japan	6,116	6.0
India	65,785	11.1	EU15	16,000	15.6	Iran	4,774	4.7
Russia	35,333	6.0	Argentina	9,621	9.3	Algeria	4,416	4.3
Canada	26,052	4.4	Ukraine	2,256	2.2	S. Korea	4,024	3.9
Australia	21,743	3.7	Turkey	1,758	1.7	Indonesia	3,622	3.5
Pakistan	17,417	29.0	Hungary	1,607	1.6	Pakistan	3,449	3.3
Turkey	16,833	2.8	Other	8,351	8.1	EU15	3,367	3.3
Ukraine	15,630	2.6	Total	102,540	100.0	Russia	2,700	2.6
Argentina	14,233	2.4				U.S.	2,637	2.6
Iran	11,000	1.9				Morocco	2,309	2.3
Other	90,164	15.2				Yemen	2,253	2.2
Total	593,579	100.0				Mexico	2,202	2.1
						Philippines	2,145	2.1
						Iraq	2,114	2.1
						China	1,869	1.8
						India	1,723	1.7
						Other	39,395	38.4
						Total	102,540	100.0

1/ Totals may not equal 100 percent due to rounding. Trade figures exclude intra-EU trade.

Sources: Economic Research Service, PS&D View; Foreign Agriculture Service website: http://www.fas.usda.gov/grain/circular/1999/99-12/graintoc.htm

Since 1975/76, U.S. wheat exports have fluctuated from a high of nearly 50 million tons in 1981/82 to a low of about 25 million in 1985/86. In 1981, the U.S. share of global exports also peaked at about 45 percent. In recent years (1996/97-1998/99), U.S. wheat exports have averaged less than 30 million tons, and the U.S. share of global exports has fluctuated between 25 and 30 percent since 1990/91. Rising U.S. production and a growing share of global production since 1995/96 have not translated into increased exports or a larger share of global exports (see figure C-1).

There are a number of reasons for the decline (during the 1980's) and stagnation (during the 1990's) of the U.S. export market share. One important cause is increased foreign wheat production, which grew 46 percent between 1975/76-1979/80 and 1994/95-98/99, while U.S. wheat output increased only 15 percent. A particularly important development has been the rapid growth of wheat production by China and the EU. In 1975, the United States was the world's leading wheat producer, whereas in 1998/99 it ranked third, behind China and the EU, and just ahead of India.

Another important reason is that trade in wheat is highly regulated by tariffs and other trade-distorting policies. Top consumers of wheat, such as the EU, China, Japan, India, the Philippines, and Morocco, maintain high applied tariffs (25 percent or more), or limit imports with tariff-rate quotas (TRQs) or government controls over imports by state trading enterprises (see later sections for an explanation of these issues). Exporters and importers have also used other trade-distorting policies designed to stabilize internal prices, such as the minimum price policies. These policies create incentives to boost wheat production, which limit imports or exacerbate the use of export subsidies.

Even without substantial reductions of foreign import barriers (tariffs and TRQs) and domestic support policies, prospects for increased U.S. wheat exports are moderately positive. According to USDA projections (USDA, 2000), which assume no new WTO agreement on agricultural trade liberalization, world wheat trade is expected to increase at a pace of 2.2 percent per year until 2009, well above growth in the 1980's or 1990's. Much of the forecast growth in wheat import demand will come from middle and lower income countries that are expected to experience strong economic and population growth in the coming years, including North Africa, the Middle East, China, Indonesia, and Pakistan. The United States will compete with Australia, Argentina, Canada, and the EU to fill increased demand for imports, but slower growth in exports by these countries than by the United States is expected to raise the U.S. share of global exports.[4]

Product Composition of Trade[5]

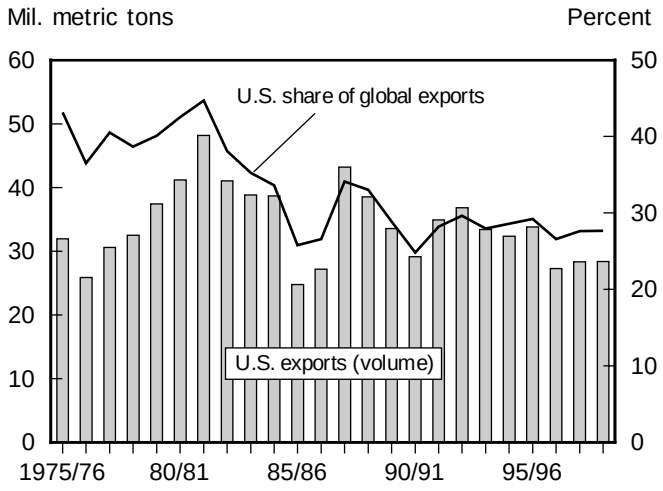
The composition of wheat classes produced and products traded is changing and adding to the complexity of the world wheat market. In different parts of the world, wheat is

[4] From 29.3 percent of global exports in 1999/2000 to 33.5 percent in 2009/2010 (USDA, 2000b).

[5] Material in this section was contributed by Ron Trostle, ERS.

Figure C-1

U.S. wheat exports: Volume and share of global trade



Source: Economic Research Service, USDA.

classified using different characteristics and methods. In the United States, wheat has traditionally been divided into six classes: four hard wheats and two soft wheats. All of the classes are somewhat substitutable, but each class produces better quality grain in a particular ecosystem and each class has characteristics suited to particular end uses.

The United States produces and exports significant quantities of all the classes of wheat except hard white. The other major exporters, each with a more limited variety of ecosystems, tend to specialize in fewer classes. The EU primarily grows soft wheats, with most varieties selected for bread-baking qualities. The EU also grows durum, but since the 1992 CAP reform reduced the area eligible for supplemental payments, the EU has generally had to import some durum. Argentina also exports mainly medium-protein bread and noodle wheat. While Canada generally specializes in high-protein hard spring wheat and durum, it grows limited quantities of soft white wheat in the eastern provinces. Australia made a decision years ago to specialize in white wheats and exports both hard and soft white varieties. In recent years it has attempted to raise some higher protein white wheat and specialized wheats for niche markets such as the Asian noodle market.

Improved quality and more diverse end uses of grain are becoming more important as import decisions in some countries are being shifted from state trading enterprises to private sector millers. Consumer tastes and preferences for different types of wheat products are also changing, shifting demand for the classes of wheat needed to produce particular products. Rising incomes in many middle-income countries, for example, have generated demand for more consumer-ready products.

Uruguay Round Accomplishments and Issues for the New Agricultural Negotiations

After seven previous rounds of multilateral trade negotiations, the Uruguay Round (1986-1994) marked the first major effort by the GATT (the predecessor organization to the WTO) to include trade liberalization in agriculture as a central objective. One of the centerpieces of the pact was the Uruguay Round Agreement on Agriculture (URAA), which required signatories to cut average tariff levels on all agricultural products by set percentages, reduce the value and volume of subsidized exports, and lower aggregate spending on some domestic support programs for agriculture.[6] Separate agreements also established new disciplines on the use of sanitary and phytosanitary (SPS) measures that could be used to restrict trade based on health and safety concerns, and created a new process for settling trade disputes.

It is difficult to separate the influence of the URAA from other factors affecting trade, but the volume of world wheat trade has actually declined since the agreement was reached. Between 1991/92-93/94 and 1996/96-98/99, global trade fell by 5.5 percent (from 108.5 million tons to 102.5). On the other hand, 12 of the top 15 net wheat importing countries increased their wheat imports, with only China and Russia experiencing large declines (a combined drop of 15 million tons). For U.S. wheat producers, important issues for the new negotiations include furthering market access and reducing levels of trade-distorting programs. Developments in other areas—such as creating tighter disciplines on state trading enterprises, disciplining use of export taxes or credit guarantees, and the potential impact of China's WTO accession—could also have ramifications for U.S. wheat producers.

Because the main provisions of the URAA are detailed elsewhere (see USDA,1998a), only a summary table (C-3) and a general overview of the main accomplishments are given at the beginning of each section below. Trade issues related specifically to the wheat sector are then discussed in more detail.

Continuing Issues:

Market Access—The URAA required participating countries to reduce "base" period (those in effect in 1986 or 1986-88) tariffs on agricultural products by an average of 36 percent for developed countries and 24 percent for developing nations, and to cap tariffs at a final "bound" level by the end of the implementation period (table C-3). The minimum tariff cut on each product is 15 percent (10 percent for developing countries). The agreement also required signatories to convert all non-tariff agricultural trade barriers, such as quotas, to tariffs, a process referred to as "tariffication." Countries doing so established a two-tiered tariff system (a tariff- rate quota, or TRQ) in which a lower tariff (the in-

[6] Least developed countries do not have to make commitments to reduce tariffs or subsidies.

Table C-3--URAA targets for tariff and subsidy reduction

Items	Developed countries	Developing countries
	Percent	
Tariffs		
Average cut for all agricultural products	36	24
Minimum cut per tariff	15	10
Base period (1986 for existing tariffs) (1986-88 for non-tariff barriers)		
Export subsidies		
Reduction in volume	21	14
Reduction in budget expenditures	36	24
Base period (1986-90)		
Domestic support		
Reduction in total AMS	20	13
Base period (1986-88)		
Implementation period	6 years (1995-2000)	10 years (1995-2004)

Source: WTO (http://www.wto.org/wto/about/agmnts3.htm)

quota tariff rate) applies to product imports below a certain quantitative limit and higher tariffs (the over-quota tariff rate) to imports beyond that limit (USDA, 1998a).

With the lower tariff rates for within-quota imports, TRQs were designed to ensure minimum trade access levels equal to or above a country's recent import levels.[7] TRQs also increase the transparency of protection in agriculture by converting quotas to more easily measurable and comparable units of protection, such as ad valorem (percentage rate) or specific (units of currency per unit of weight) tariffs. As of September, 1997, about 40 percent of the nearly 1,400 TRQs on all commodities were scheduled to have their quota level (the quantity of imports subject to the lower tariffs) increased over the course of the implementation period, implying some increase in market access for agricultural products in general.

Lowering tariff barriers and expanding access levels in countries with TRQs will continue to be an important priority for the United States in any future negotiations. By establishing maximum bound tariff rates and "tariffying" quantitative import limits (through the creation of TRQs), the URAA placed limits on potential tariff increases and established minimum trade access levels, but it appears to have had only a limited impact on U.S. wheat export prospects. This is because the base period (1986 or 1986-88) from which tariff reductions were made was one of very high protection, and tariffs on goods subject to tariffication were frequently exaggerated, a practice known as "dirty tariffication." (USDA, 1998a) In many cases, developing countries were also permitted to designate base period tariffs at levels well above tariff levels that actually existed. One study estimated that tariffs affecting less than 15 percent of world agricultural trade will have become more liberal than base period levels by the end of the implementation period (Finger, et al., 1996; cited in USDA, 1998a).

Tariffs on Wheat—Although the bound levels set a maximum tariff that each country can impose on a product, a look at table C-4 confirms that even with tariff reductions fully implemented, the final bound rates on wheat are still generally much higher than the "applied" tariff levels countries actually choose to impose. Among the countries listed in table C-4, for example, the maximum bound tariff rates on wheat equal or exceed 100 percent in six countries (several of which are major wheat consumers), whereas none charged a duty higher than 50 percent. So despite the effort to increase discipline on the use of tariffs, most countries still have a great deal of room to raise them.

Several examples highlight the ability of wheat importing nations to impose large tariff increases to support certain policy goals. A notable one is India's decision in December 1999 to raise tariffs on wheat imports from duty-free up to 50 percent. India, which recently averaged about 1.7 million tons of wheat imports yearly, raised its tariffs because the price of imported wheat was substantially below the government's selling price to millers, and domestic stocks of government-purchased wheat had grown beyond desired levels.[8] In April 1999, South Africa, which imported an average of 800,000 metric tons of wheat during 1996/97-1997/98 (30 percent from the U.S.), raised its tariff on wheat from zero to about $30 per ton, presumably to support local producers suffering from increased imports.[9] Chile announced this year (2000) that it would impose additional import tariffs on

[7] The URAA required that the quota level be equal or greater than actual imports (or some percentage of domestic consumption) during a recent period, and mandated a reduction in over-quota tariff rates. The URAA also required that imports meet a minimum of 5 percent of domestic consumption by the end of the implementation period. Countries importing over that amount are not required to raise their quota.

[8] FAS GAIN report #IN9087; 12/2/99.

[9] FAS GAIN #SF9014, 4/99.

Table C-4--Base, bound, and applied tariff levels on wheat, selected countries 1/

	Base tariff rate	Bound tariff rate	Applied tariff 2/
		Percent	
WTO member country			
Egypt	n/a	5	1
S. Korea 3/	10	1.8	3
Bangladesh	n/a	200	30
Pakistan	n/a	150	0
India 4/	n/a	100	50
Turkey	200	180	30
Indonesia	30	27	0-5
Philippines 5/	50	30	3
Nigeria	n/a	150	7.5
Chile 6/	35	31.5	50
Australia	0	0	0
U.S. 7/	6.3% or 0.77 cents/kg (whichever is higher)	2.8% or 0.35 cents/kg (whichever is higher)	4% or 0.49 cents/kg (whichever is higher)
Non-WTO members			
Russia	n/a	n/a	5
China	150	114	1
Taiwan	n/a	n/a	6.5
Algeria	n/a	n/a	5

1/ Excludes durum. Applied tariff rates on durum are generally the same, or lower, than other categories of wheat.

2/ Most Favored Nation (MFN) tariff for most recent year available (TRAINS database). If a range is given, it refers to the range of tariffs on the different wheat categories listed on a nation's tariff schedule.

3/ Korea's applied tariff is above the bound rate because it has not reached the end of the implementation period.

4/ FAS GAIN Report #IN9089, 12/21/99.

5/ The 3-percent tariff is on food wheat. The Philippines has a 15-percent tariff on feed wheat (FAS GAIN Report # RP9004; 2/6/99).

6/ Chile recently raised its tariff above the WTO bound level to protect domestic producers from price fluctuations.

7/ The ad valorem (percentage) tariff refers to "wheat and meslin seed." The specific tariff refers to "other wheat and meslin."

Sources: For Base and Bound Tariffs - WTO, "The Results of the Uruguay Round" (CD-ROM), 1996. For Applied Tariffs - UNCTAD, Trade Analysis and Information System (TRAINS, CD-ROM), Winter 98/99; Organ of the International Union for the Publication of Customs Tariffs, Bulletin International des Douanes, "The International Customs Journal," various years and countries; and FAS GAIN Reports where noted.

wheat as part of a "safeguard" action, bringing its overall tariff above the 31.5 percent it had committed to in the Uruguay Round.

Wheat TRQs—Seventeen countries, including some of the world's largest wheat consumers (e.g. EU, Poland, Brazil, and Japan) have TRQs on wheat, and a look at table C-5 shows that high over-quota tariff rates and generally small (lower tariff) access (quota) levels remain a barrier to wheat trade. In some cases, countries with wheat TRQs import far more than the quota level, either because of relatively low applied over-quota tariffs or due to preferential trade arrangements allowing additional low tariff imports from selected trading partners. In most cases, though, the final bound over-quota tariff rate (OQTR), if applied, would be prohibitive to imports beyond the quota level, and quota levels were scheduled to increase only slightly, if at all. In the new negotiations, opportunities for improved market access can come from reduced OQTRs or by increasing the quota level.

In addition to prohibiting or severely curbing imports above the quota level, the administration of tariff-rate quotas will most likely be a topic of negotiation. Some countries allocate the quota to suppliers based on the historical distribution of trade, which limits the opportunity of others to increase market share, and some countries have assigned import rights to state trading enterprises or producer associations. These organizations may limit market access in order to protect domestic producers, resulting in quota "underfill," or may bias the quota distribution to favored suppliers for political reasons (Skully).

Export subsidies—Twenty-five WTO member countries agreed to reduce the volume and value of their subsidized agricultural exports from base period levels (table C-3). Ten countries made specific commitments to reduce subsidized wheat and wheat flour exports. These include five of the eight largest wheat exporters listed in table C-2: the United States, the European Union, Canada, Turkey, and Hungary. Of the total volume of subsidized agricultural exports permitted each year by the URAA, the quantity allowed for wheat and wheat flour is the highest of any commodity, reflecting its position as one of the most heavily subsidized agricultural commodities in global commerce.[10] Although

[10] If all countries shipped the maximum permitted volumes of subsidized exports for each product, wheat and wheat flour would account for over one-half of the total volume (USDA, 1998a).

Table C-5--Wheat TRQs: Provisions of selected countries

	Final bound rates		Applied tariff rates 1/		Quota		1998 imports
	IQTR	OQTR	IQTR	OQTR	Initial	Final	
	Percent				1,000 metric tons		
Member country							
Brazil	0	55	13	13	750	750	7,000
Morocco 2/	n/a	144	34	33.5 +	1,555	1,555	2,560
Mexico	50	$90/mt (but no less than 67%)	67	67	605	605	2,485
EU15 3/	0	95 ecu/mt	0	113 ecu/mt	300	300	3,800
Japan 4/	0-20%	55 yen/kg	0-20% (or 10.5 yen/kg)	58.3 yen/kg	5,565	5,740	5,880
Venezuela	30	118	15	15	1,271	1,271	1,265
Canada 5/	C$1.90 per ton	76.5%	C$3.16/t	83%	136	227	147
Israel	85	128	0	0	450	450	1,490
Colombia	n/a	124	5-15	5-15	692	692	1,100
South Africa 6/	n/a	72	n/a	$30/t	97	108	560
Switzerland 7/	35	n/a	n/a	200+	70	70	135
Poland 8/	25	64% but no less than 96 ecu/mt	70	70	280	280	460

1/ Most Favored Nation average. When the applied tariff exceeds the final bound tariff rate, it indicates the country has not reached the end of its URAA implementation period. Applied rates are most recent year available from TRAINS data base or FAS GAIN reports.

2/ For "bread wheat." There is a base duty of 18.5 percent and an import tax of 15 percent. There is an additional tariff applied on the difference between a threshold price the C&F price. In 1998, with a threshold price of $215/ton, the additional duty would exceed 100% (FAS GAIN Report #MO9019, 10/23/98.

3/ The EU quota is for "quality wheat." The import figure excludes intra-EU trade.

4/ Comprehensive quota for "wheat, meslin, triticale, and their processed products." The bound IQTR is 0 percent for wheat and up to 25 percent for some processed goods.

5/ Quota is for all wheat.

6/ Quota is for "wheat or wheat equivalent." The applied OQTR as of 4/99 is 181 Rand/ton (appx. $30/ton).

7/ The applied OQTR was about $230/ton in 1998 (over 200 percent). FAS GAIN #SZ8015, 9/98.

8/ Poland has a lower tariff for durum from EU origin and other preferential arrangements. Applied tariffs are normal trade relation (NTR) tariffs as of 4/99 (FAS GAIN Report #PL9016, 4/28/99).

Sources: For Base and Bound Tariffs – WTO, "The Results of the Uruguay Round" (CD-ROM), 1996; and FAS, USDA (http://www.fas.usda.gov/wto/ve/ve15.pdf); For Applied Tariffs – UNCTAD, Trade Analysis and Information System (TRAINS, CD-ROM), Winter 1998/99; Imports – PS&D view.

countries have generally remained well below their subsidized export limits, URAA export subsidy commitments have lowered the potential volume of subsidized wheat exports from about 40 percent of world trade in 1994 to about 25 percent in 2000 (USDA, 1998b).[11]

Limitations on export subsidies for wheat and wheat flour are an important discipline on trade-distorting policies, since these subsidies were heavily used, particularly by the EU and the United States, in the decade or so preceding the URAA. Between 1986 and 1995, the United States assisted an average of about half of its wheat exports, amounting to nearly 170 million tons, through the Export Enhancement Program (EEP), and expenditures ("bonuses") on wheat totaled about $5.5 billion (Ackerman, 1999). In recent years, however, the United States has sharply cut back on the use of export subsidies. After awarding "bonuses" of about $240 million on nearly 14 million metric tons of wheat in fiscal 1995, the U.S. has not used EEP to subsidize wheat or wheat flour exports.

As for the EU, expenditures on export subsidies for wheat and wheat flour generally exceeded those of the United States prior to the URAA. In addition, the EU has continued to rely on subsidies to promote wheat and flour exports since 1995, although it has not exceeded its Uruguay Round commitments. In 1995 and 1996, EU expenditures on export subsidies accounted for over four-fifths of all such spending on agricultural products (notified) by WTO members, and as indicated in table C-6, the EU accounted for 75 percent of

[11] The exception is the EU, which has used about 58 percent of its permitted export subsidy volume between 1995 and 1997. Details are discussed in a later section.

Table C-6--Export subsidy commitments and export subsidies, (wheat and wheat flour)

	1995		1997		Final binding	
	Volume	Value	Volume	Value	Volume	Value
	1,000 mt	Millions	1,000 mt	Millions	1,000 mt	Millions
European Union 1/						
Commitment	19,118	2,069 ecu	16,845	1,698 ecu	13,436	1,141 ecu
Actual	2,768	119	13,038	177		
($U.S. equivalent)		($155)		($201.6)		
United States						
Commitment	20,239	765.5	17,951	604.8	14,522	364
Actual	14,000	240.0	0	0		
($U.S.)						
Canada						
Commitment	13,590	326.8	11,695	275.7	8,851	199.1
Actual	0	0	0	0		
(Canadian dollars)						
Hungary						
Commitment	1,393	1,931 Forints	1,292	1,685 Forints	1,141	1,315 Forints
Actual	640	760	0	0		
($U.S. equivalent)		($6.1)				
Turkey						
Wheat			1,762	504	493	274
Commitment	2,125	640	0	0		
Actual	0	0				
Wheat flour						
Commitment	475	9.5	382	7.7	1.4	56
Actual	367	5.5	0	0		
($U.S.)						
Other countries 1/						
Commitment	2,512	n/a	1,279	n/a	n/a	n/a
Actual	14	n/a	0	n/a	n/a	n/a

1/ Other countries notifying export subsidy commitments for wheat include Bulgaria, the Czech Republic, Mexico, Slovakia, and South Africa. South Africa eliminated its export subsidy program in 1997.

Sources: WTO, "The Results of the Uruguay Round" (CD-ROM), 1996; WTO, "Export Subsidies: Background Paper by the Secretariat" AIE/S3, November 3, 1997; WTO, "Export Subsidies: Background Paper by the Secretariat, Revision" AIE/S3/Rev.1, August 11, 1999.

all subsidized wheat and wheat flour exports, by value, between 1995 and 1997 (the most recent year for which consistent data are available).[12]

Prompted in part by concerns over meeting its URAA export subsidy commitments, the EU (as part of its Agenda 2000 reforms of its Common Agricultural Policy) will cut its domestic support prices for cereals (including wheat) by 15 percent and reduce the base rate of land set-aside from production from 17.5 percent to 10 percent. In combination with more land available for wheat production, a shift in production from oilseeds (which face a 30-percent reduction in compensatory payments) and other grains could increase EU wheat production (Leetmaa, 1999). ERS analysis indicates that EU wheat could be competitive in world markets without export subsidies by 2004 if world prices rise and exceed the internal EU wheat support price (USDA, 2000b).

Direct export subsidies by other major wheat exporters were uncommon before the URAA, and have been generally insignificant among countries making export subsidy commitments since the agreement. Many countries, including the United States, have called for the complete elimination of export subsidies. Immediate elimination of these subsidies would probably have a positive impact on U.S. exports in the near future, as the United States and other countries could gain market share at the expense of the EU. Such an agreement would also restrain other countries (those that made no export subsidy commitments) from using export subsidies.

Domestic support—Policies such as price supports and other types of subsidized production have the potential to distort trade flows by reducing imports below levels that would normally occur, or by encouraging the use of export subsidies to dispose of excess domestic production. The URAA required countries to reduce and cap total outlays, as measured by the Aggregate Measurement of Support (AMS), on certain domestic policies that provide producers with direct incentives to increase production. For developed countries, the AMS is to be reduced from base period (1986-88) amounts by 20 percent over a 6-year (implementation) period (table C-3).

[12] Values for 1996 not shown in table B-6.

The EU and the United States, net wheat exporters, and Japan, a major wheat importer, have the most substantial domestic support programs of the 29 WTO members that agreed to these limits. Of the $285 billion spent on agricultural support programs by the 29 countries in 1995, the EU ($113 billion), Japan ($70 billion), and the United States ($61 billion) accounted for about 85 percent. For the EU and Japan, the majority of that spending (50-55 percent) was on "amber box" policies that counted towards their AMS limits, in contrast to only 10 percent for the United States.

The URAA divided support on domestic programs into three categories indicating the relative trade-distorting effects of the policies: 1) "amber box" policies, such as price supports, marketing loans and loan deficiency payments, which are subject to reduction and final spending limits; 2) "blue box" policies, which are exempt from limits because payments are tied to production limitations by basing payments on fixed area or yield, or on a maximum of 85 percent of base production; and 3) "green box" policies, such as domestic food aid (e.g. food stamps) and de-coupled income support (e.g. U.S. production flexibility contract payments) which are also exempt from limits.

Only amber box policies count towards the AMS limits each country can provide. In addition, support from policies that would otherwise be considered "amber box" are not counted towards the AMS if support for a specific commodity is equal to or less than 5 percent of the value of that commodity's production in any given year. This is known as the *de minimis* exemption. The *de minimis* exemption also applies to non-commodity specific programs, such as crop insurance, as long as support for all such programs remains below 5 percent of the value of all agricultural production.

To the extent that AMS limits lower spending on programs that boost production in wheat exporting or importing countries, the result may be a reduction in subsidized exports by exporting countries, increased imports by importing countries, and higher prices for wheat traded in global markets. It is difficult to predict what impact these spending limits will have on U.S. wheat production and exports, though, because the AMS limits are non-commodity specific. That is, the URAA disciplined aggregate spending on trade distorting domestic support programs, rather than spending on particular commodities, although commodity specific spending contributes to the AMS if it exceeds the *de minimis* level. This feature gives countries some discretion on how to establish individual commodity policies.

Countries with the largest domestic support programs had little difficulty remaining below their AMS limits between 1995 and 1997 (the most recent year for which data are available). In 1997, the U.S. AMS amounted to $6.24 billion, less than 30 percent of its AMS ceiling for that year. The EU, with an AMS ceiling of $89 billion, and Japan, with a ceiling of $39.7 billion, spent far more than the United States on amber box policies but each remained at about 70 percent of their AMS ceilings.[13] One of the reasons countries have had little difficulty staying within AMS limits is that the 20-percent reduction in AMS required by the URAA was from a base period (1986-88) that was characterized by very high spending on domestic support programs. Another is that the EU and United States, as well as countries such as Japan, Korea, and Switzerland, have "re-instrumented" (changed) policies to avoid exceeding AMS limits.

In the United States, for example, the 1996 Farm Act replaced deficiency payments with market transition payments (production flexibility contracts - PFC's), but neither of these counted towards the United States' AMS commitments. Deficiency payments were considered an exempt blue box policy because payments were contingent upon participation in production limiting programs. PFC's were categorized as green box because the payments were completely de-coupled from current production and prices.

As an amber box policy, though, marketing loan benefits for wheat are counted towards the U.S. AMS if the value of these payments exceeds the 5 percent *de minimis* level, which was not the case between 1995 and 1997. In 1998/99, about 55 percent of the U.S. wheat crop received a loan deficiency payment (LDP) averaging about 29 cents per bushel. This amounted to about $400 million, which is below 5 percent of the value of that year's crop. Because of falling farm incomes and weather-related disasters, the U.S. Congress provided supplemental emergency assistance (AMTA) payments to recipients of PFC payments in both 1998 and 1999, but no decision has been made on how the supplemental payments will be notified to the WTO (Childs and Hoffman, 1999).

In the EU, changes since the base period have put its compensatory payment support program for wheat into the exempt "blue box" category of domestic support. This is because support for EU wheat producers is tied to production limitations based on fixed area and yields. Although not counted towards the EU's AMS, compensatory payments to EU cereal (including wheat) producers totaled about $11 billion in 1995/96 and $12 billion in 1996/97.[14] The intervention market price support provided by the EU to wheat producers does count against the AMS limit, however. The product specific AMS from price support for "common" wheat in the EU totaled about $3.3 billion in 1995/96 and $3.6 billion in 1996/97 (about 3.5 percent of the EU's AMS ceiling for those years).[15]

It is uncertain whether there will be further discussions on "amber" and "blue" box policies in the upcoming negotia-

[13] Source: WTO notifications, compiled by Fred Nelson, ERS.
[14] The exchange rate was $1.288 per ECU in 1995 and $1.2 per ECU in 1996.
[15] Source: WTO (september 21, 1999)

tions. The U.S. position is that criteria contained in the "green" box have allowed member countries to provide appropriate and legitimate support to farmers in a manner that minimizes distortions to trade, and that the "green" box exemption should continue to support the objectives of minimizing the link between support and production (USTR).

Other Issues

State Trading Enterprises (STEs)—According to a recent ERS publication (Ackerman and Dixit, 1999), state trading enterprises (STEs) can affect trade by influencing domestic and international prices in ways similar to the use of import tariffs and export subsidies. Negotiations in this area could be important for the U.S. wheat industry since STEs account for more than one-third of global imports, and trade in six of the top twelve wheat importing countries between 1995 and 1998 were controlled by STEs with exclusive importing rights (Ackerman and Dixit, 1999). STEs can limit imports either directly, by acting as a monopoly importer, or indirectly by controlling the distribution or availability of import licenses and foreign exchange to private firms. Examples of countries that use STEs to regulate or control part or all of wheat imports include Japan , India, Egypt, and a number of countries outside of the WTO, such as China, Taiwan, Russia, Algeria, and Iran.[16]

Among wheat exporting countries, STEs accounted for about 40 percent of wheat exports between 1994 and 1998. The Canadian Wheat Board (CWB) and Australian Wheat Boards are the major STEs involved in wheat exports. Although the United States (when using EEP) and the EU (through the export of EU intervention stocks) regulate wheat exports, neither the United States nor the EU act as "single desk" sellers of wheat as do the CWB and AWB.

The WTO does have some guidelines governing STEs, but many countries are calling for stricter controls since the lack of transparency in STE pricing and operational activities has caused concern that these activities are used to circumvent URAA export subsidy and market access commitments. There is also the concern that STEs may become more active in managing trade in the future if market access and export subsidy rules become more disciplined. Recently though, some countries have begun to reform import rules to allow private companies to import wheat. In 1998, for example, Indonesia's BULOG made an agreement with the International Monetary Fund to allow private firms to import wheat and flour, and Morocco opened wheat imports to private traders in 1996. Pakistan briefly allowed private imports in 1998/99.

Country Accession to WTO—The WTO counts most of the world's major trading partners among its members, but several nations, including China, Taiwan, Russia, and Vietnam, are not yet members and are therefore not bound to its rules. China, which as recently as 1995/96 imported 12.5 million tons of wheat, reached an agreement at the end of 1999 with the United States on the terms of its accession to the WTO. Chinese wheat imports are now only about 1 million tons (1998/99), with the United States accounting for less than 30 percent of those imports (FATUS). Nevertheless, accession on the terms agreed to by the United States and China could have a favorable impact on U.S. wheat exports.

China currently maintains low applied tariffs on wheat, but two aspects of the agreement in particular could improve access to China's market. First, as part of the *Agreement on U.S.-China Agricultural Cooperation*, China has removed the long-standing ban on U.S. wheat (and other grains) from the Pacific Northwest due to TCK (*Tilletia controversa* Kuhn), a mold that can, under certain conditions, damage wheat. In signing the agreement, China recognized that imported wheat does not pose a threat to its domestic wheat crop, and may now be imported.[17]

Second, China has agreed to establish, upon its accession to the WTO, a TRQ for wheat with an initial quota of 7.3 million tons, rising to 9.636 million by 2004.[18] A 10-percent share of the quota has been reserved for importation through entities other than state trading entities. Previously, the Chinese STE for cereals had exclusive authority to import grains. In addition, quota allocations unused by state or private traders by October 1 of any given year can be reallocated and used by any authorized importer (USDA, FAS,12/99). The in-quota tariff rate will be fixed at below 10 percent (1 percent for grain, including durum), and the over-quota tariff rate will be capped at 65 percent.

China has also agreed to forego the use of export subsidies, to cap and reduce domestic support for agriculture, and to abide by the WTO agreement on SPS measures. A recent USDA analysis of the anticipated trade effects of China's WTO accession concluded that, by the year 2005, China's net wheat imports could increase more than $500 million over original USDA projections (USDA, 2000b), which had assumed no accession by China (Colby, Price, and Tuan, 2000).

Sanitary and Phytosanitary Agreement (SPS)—Many countries have phytosanitary regulations governing wheat trade. Several have been controversial and have emerged as important issues in previous trade negotiations. The most

[16] Private traders in Iran have recently imported significant quantities of corn from the United States., but perhaps due to greater government involvement in wheat trade, no purchases of U.S. wheat have been made.

[17] Foreign Agricultural Service, USDA, "Grains: World Markets and Trade," 12/99.

[18] The TRQ is not a minimum purchase requirement, but the agreement does require China to establish access opportunities for the full quota amount. The agreement also introduces private trade and increased transparency of the import process to maximize the likelihood that quotas will fill.

notable were China and Brazil's stringent limits on TCK smut and Brazil's controls on Karnal bunt, other fungi, and weed seeds between 1995 and 1998. In some countries, such as India and Turkey, phytosanitary regulations have been used as justification for rejecting some incoming shipments of wheat. Uncertainty about phytosanitary standards and their implementation increases exporters' risks in selling wheat to such markets.

The Uruguay Round Sanitary and Phytosanitary (SPS) Agreement imposed new rules and procedures on measures countries may take to protect human, animal or plant life or health. The agreement required that regulations be based on science and should not be arbitrary or discriminate between countries where there are similar conditions. This Agreement could increase the transparency of countries' SPS regulations and provides an improved means for settling SPS-related trade disputes (USDA, 1998a).

Export Credit Guarantees and Export Taxes—A potential issue related to the upcoming negotiations is the discussion on export credits and credit guarantees currently taking place in the Organization for Economic Cooperation and Development (OECD). Export credit guarantees are not considered export subsidies under the WTO, but some U.S. competitors may argue that export credits and credit guarantees should be treated as a subsidy. The United States continues to engage in negotiations on credit disciplines in the OECD, and has submitted proposals in an attempt to move discussions forward in that forum.

Additional discussions in the WTO could include limitations on export taxes, such as the tax on wheat exports imposed by the EU in 1995 and 1996. Export taxes restrict the quantity of a commodity available on world markets and tend to raise world prices above what they would be otherwise. Under current WTO rules, restrictions on exports, such as export embargoes, are supposed to be used only in emergencies, and a country imposing such restrictions is required to notify the WTO of its actions.

Trade in Genetically Engineered Commodities—Presently, there is no transgenic wheat being grown in the United States. Therefore, foreign regulations have not had a direct impact on U.S. wheat producers or exports. However, with the introduction of transgenic wheat varieties possible in the next several years, the outcome of any potential discussions on trade rules governing genetically engineered crops could have a big impact on U.S. wheat producers.

Conclusions

As the world's leading exporter, the U.S. wheat sector has much to gain from reforms of agricultural trade rules. The Uruguay Round Agreement on Agriculture (URAA) was a major first step in this process, but further gains are possible. Most major net wheat importing countries increased wheat imports after the agreement, but greatly reduced imports by Russia and China have meant that the volume of global wheat trade has declined since the agreement. The U.S. share of global wheat trade has also remained fairly constant despite rising production between 1995/96 and 1998/99. In the new multilateral agriculture trade negotiations, important issues could include increased market access, continued reductions in trade-distorting domestic support programs and export subsidies, and tighter disciplines on state trading enterprises. Progress on these issues could enhance market opportunities for the U.S. wheat sector.

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Appendix table 1--Wheat: Marketing year supply, disappearance, area, and price, 1993/94-1999/2000

Item	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99 (Preliminary)	1999/2000 (Projected)
				Million acres			
Acreage:							
National base acreage	89.6	88.9	88.5	87.9	0.0	0.0	0.0
ARP (%)	0.0	0.0	0.0	---	---	---	---
Acreage reduction	0.0	0.0	0.0	---	---	---	---
0,50/92,85	5.7	5.2	6.1	0.0	0.0	0.0	0.0
Conservation Reserve Program	10.8	10.8	10.8	10.6	10.1	9.7	0.0
Program participation (%) 1/	87.5	87.0	84.8	99.1	0.0	0.0	0.0
Planted	72.2	70.3	69.0	75.1	70.4	65.8	62.8
Harvested	62.7	61.8	61.0	62.8	62.8	59.0	53.9
Planted by participants	56.4	55.5	52.3	---	---	---	---
				Bushels per acre			
Yield	38.2	37.6	35.8	36.3	39.5	43.2	42.7
				Million bushels			
Supply:							
June 1 stocks	531	568	507	376	444	722	946
Production	2,396	2,321	2,183	2,277	2,481	2,547	2,302
Imports 2/	109	92	68	92	95	103	95
Total supply	3,036	2,981	2,757	2,746	3,020	3,373	3,343
				Million bushels			
Disappearance:							
Food	872	853	883	891	914	907	905
Seed	96	89	103	102	92	81	91
Feed and residual 3/	272	345	154	308	251	397	300
Total domestic	1,240	1,287	1,140	1,301	1,257	1,384	1,296
Exports 2/	1,228	1,188	1,241	1,002	1,040	1,042	1,050
Total disappearance	2,467	2,475	2,381	2,302	2,298	2,427	2,346
				Million bushels			
Ending stocks:							
31-May	568	507	376	444	722	946	997
Farmer-owned reserve	6	0	0	0	0	0	0
Special program 4/	0	0	0	0	0	0	0
CCC inventory 5/	150	142	118	93	94	128	100
Outstanding loans 6/	0	0	13	72	134	140	50
Other	412	365	245	279	494	678	847
				$/bushel			
Prices:							
Received by farmers	3.26	3.45	4.55	4.30	3.38	2.65	2.45-2.55
Loan rate	2.45	2.58	2.58	2.58	2.58	2.58	2.58
Target	4.00	4.00	4.00	0.00	0.00	0.00	0.00
				$ million			
Value of production	7,812	8,007	9,787	9,782	8,387	6,781	5,756

1/ Set-aside participation. 2/ Imports and exports include flour and other products expressed in wheat equivalent. 3/ Residual approximates feed use and includes negligible quantities used for alcoholic beverages. 4/ Projected amount of free-stock carryover in the special producer storage loan program. 5/ From 1981/82 on, includes 147 million bushels (4 million tons) in Food Security Reserve. 6/ Projected amount of free-stock carryover under 9-month loan.

Source: Economic Research Service, USDA.

Appendix table 2--Wheat: Area, yield, and production by major States, 1990-99

State	1990	1991	1992	1993	1994	1995	1996	1997	1998 1/	1999 2/
Area harvested (million acres):										
Arkansas	1.4	0.9	0.9	1.0	0.9	1.0	1.2	0.8	0.9	0.9
Colorado	2.6	2.3	2.4	2.6	2.6	2.7	2.3	2.8	2.6	2.5
Idaho	1.4	1.2	1.4	1.4	1.4	1.3	1.6	1.4	1.3	1.4
Illinois	1.9	1.4	1.2	1.6	0.9	1.4	1.1	1.1	1.2	1.0
Kansas	11.8	11.0	10.7	11.1	11.4	11.0	8.8	10.9	10.1	9.2
Minnesota	2.9	2.2	2.8	2.3	2.5	2.2	2.5	2.4	2.0	2.0
Missouri	2.0	1.5	1.4	1.4	1.1	1.2	1.3	1.1	1.3	0.9
Montana	5.2	4.5	4.9	5.3	5.4	5.4	6.4	5.8	5.3	5.3
Nebraska	2.3	2.1	1.9	2.1	2.1	2.1	2.1	1.9	1.8	1.8
N. Dakota	10.9	9.8	11.5	10.9	11.2	11.1	12.5	11.1	9.6	8.7
Ohio	1.3	1.1	1.1	1.0	1.2	1.2	1.3	1.1	1.2	1.0
Oklahoma	6.2	5.0	5.9	5.4	5.3	5.2	4.9	5.3	5.1	4.3
Oregon	1.0	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8
S. Dakota	3.8	3.1	3.7	3.5	3.4	2.8	3.9	3.4	3.3	3.0
Texas	4.2	2.8	3.8	3.7	2.9	2.8	2.9	4.1	3.9	3.4
Washington	2.5	2.2	2.4	2.8	2.5	2.6	2.7	2.6	2.6	2.3
Yield (bu/acre):										
Arkansas	35.0	22.0	46.0	40.0	46.0	47.0	54.0	48.0	51.0	56.0
Colorado	33.6	31.7	30.9	37.5	30.8	38.4	33.3	32.8	39.6	43.8
Idaho	72.7	70.4	69.5	79.4	71.1	77.7	76.4	79.6	80.0	77.4
Illinois	48.0	32.0	54.0	44.0	56.0	49.0	38.0	61.0	48.0	60.0
Kansas	40.0	33.0	34.0	35.0	38.0	26.0	29.0	46.0	49.0	47.0
Minnesota	48.4	31.1	49.9	31.0	28.0	32.0	41.9	32.0	40.6	39.8
Missouri	38.0	32.0	48.0	38.0	45.0	39.0	39.0	54.0	46.0	48.0
Montana	28.1	36.5	30.1	39.2	31.7	36.0	27.5	31.1	32.0	29.0
Nebraska	38.0	32.0	30.0	35.0	34.0	41.0	35.0	37.0	46.0	48.0
N. Dakota	35.3	31.0	41.1	31.0	31.7	27.0	31.6	24.3	32.0	28.0
Ohio	60.0	49.0	53.0	52.0	58.0	61.0	39.0	63.0	64.0	70.0
Oklahoma	32.0	27.0	28.5	29.0	27.0	21.0	19.0	32.0	39.0	35.0
Oregon	59.5	51.9	51.7	70.2	63.1	66.9	70.7	64.6	65.0	44.3
S. Dakota	33.8	30.9	32.0	32.0	28.4	33.0	36.1	28.7	36.7	39.9
Texas	31.0	30.0	34.0	32.0	26.0	27.0	26.0	29.0	35.0	36.0
Washington	60.5	45.9	49.4	63.6	52.7	59.3	66.5	64.0	61.4	54.2
Production (million bushels):										
Arkansas	49.0	20.5	39.1	41.6	40.5	47.0	67.0	39.4	45.9	51.5
Colorado	87.0	74.0	74.1	97.0	79.7	105.3	75.5	90.1	103.5	107.2
Idaho	99.6	81.7	100.1	110.4	100.3	103.3	119.2	113.8	102.4	104.5
Illinois	88.8	44.8	62.1	68.2	50.4	68.1	41.8	66.5	57.6	60.6
Kansas	472.0	363.0	363.8	388.5	433.2	286.0	255.2	501.4	494.9	432.4
Minnesota	138.6	67.1	139.9	71.2	71.3	71.8	106.6	77.3	80.4	79.2
Missouri	76.0	48.0	64.8	53.2	50.4	48.0	48.8	58.3	57.5	44.2
Montana	145.9	163.5	149.2	206.3	170.6	195.8	175.0	181.5	168.8	154.3
Nebraska	85.5	67.2	55.5	73.5	71.4	86.1	73.5	70.3	82.8	86.4
N. Dakota	385.2	303.7	472.9	336.6	356.4	300.3	395.1	269.3	307.7	242.1
Ohio	76.2	52.9	59.1	52.5	68.4	73.8	51.9	68.7	74.2	72.1
Oklahoma	198.4	135.0	168.2	156.6	143.1	109.2	93.1	169.6	198.9	150.5
Oregon	57.6	43.9	47.8	65.0	58.6	60.9	65.1	60.4	57.5	34.7
S. Dakota	128.0	96.2	119.6	111.5	95.3	90.7	139.3	98.0	120.9	120.6
Texas	130.2	84.0	129.2	118.4	75.4	75.6	75.4	118.9	136.5	122.4
Washington	150.1	98.6	119.6	177.6	134.0	153.8	182.7	165.1	157.4	124.1

1/ Revised. 2/ Preliminary.

Source: National Agricultural Statistics Service, USDA. Internet address: http://www.nass.usda.gov/ipedb/

Appendix table 3--Wheat: Estimated acreage, yield, and production, 1971-99

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 ---			
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	77,041	69,103	39.5	2,729,778	3,570	3,507	34.9	122,430
1991	69,881	57,803	34.3	1,980,139	3,253	3,197	32.5	103,957
1992	72,219	62,761	39.3	2,466,798	2,547	2,519	39.7	99,906
1993	72,168	62,712	38.2	2,396,440	2,241	2,100	33.6	70,476
1994	70,349	61,770	37.6	2,320,981	2,823	2,715	35.6	96,747
1995	69,031	60,955	35.8	2,182,708	3,436	3,356	30.5	102,280
1996	75,105	62,819	36.3	2,277,388	3,630	3,556	32.6	116,090
1997	70,412	62,840	39.5	2,481,466	3,310	3,177	27.6	87,783
1998 1/	65,821	59,002	43.2	2,547,321	3,805	3,728	37.0	138,119
1999 2/	62,814	53,909	42.7	2,302,443	4,035	3,569	27.8	99,322
	--- Winter wheat ---				--- Other spring wheat ---			
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	56,748	49,721	40.7	2,024,224	16,723	15,875	36.7	583,124
1991	51,024	39,506	34.7	1,371,617	15,604	15,100	33.4	504,565
1992	50,922	42,123	38.2	1,609,284	18,750	18,119	41.8	757,608
1993	51,587	43,811	40.2	1,760,143	18,340	16,801	33.7	565,821
1994	49,197	41,355	40.2	1,661,943	18,329	17,700	31.8	562,291
1995	48,591	40,987	37.7	1,545,303	17,004	16,612	32.2	535,125
1996	51,445	39,574	37.1	1,469,618	20,030	19,689	35.1	691,680
1997	47,985	41,340	44.6	1,845,528	19,117	18,323	29.9	548,155
1998 1/	46,449	40,126	46.9	1,880,733	15,567	15,148	34.9	528,469
1999 2/	43,431	35,572	47.8	1,699,989	15,348	14,768	34.1	503,132

1/ Revised. 2/ Preliminary.

Source: National Agricultural Statistics Service, USDA. Internet address: http://www.nass.usda.gov/ipedb/

Appendix table 4--Wheat classes: Production, 1955-99

Crop year	All wheat	Hard red winter	Hard red spring	Soft red winter	White winter	White spring	Eastern white 1/	Durum
				Million bushels				
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	1,232.4	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	367.4	229.1	24.8	44.2	112.5
1986	2,090.6	1,017.2	451.4	292.0	211.2	20.8	32.4	97.9
1987	2,107.7	1,019.2	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	2,729.8	1,195.6	554.7	547.1	285.0	28.4	NA	122.4
1991	1,980.1	900.8	431.2	325.2	145.6	73.3	NA	104.0
1992	2,466.8	967.2	706.7	426.7	215.4	50.9	NA	99.9
1993	2,396.4	1,065.9	511.8	401.3	292.9	54.0	NA	70.5
1994	2,321.0	971.2	515.3	438.2	252.6	47.0	NA	96.7
1995	2,182.7	825.0	474.8	455.6	264.7	60.3	NA	102.3
1996	2,277.4	759.3	630.7	419.8	290.5	61.0	NA	116.1
1997	2,481.5	1,098.3	491.3	472.0	275.2	56.8	NA	87.8
1998 2/	2,547.3	1,179.5	486.4	442.7	258.6	42.1	NA	138.1
1999 3/	2,302.4	1,055.0	447.9	453.4	191.6	55.2	NA	99.3

NA = Not available.

1/ White wheat grown in Michigan, New York, and Wisconsin; total included in white winter. 2/ Revised. 3/ Preliminary.

Source: National Agricultural Statistics Service, USDA.

Appendix table 5--Wheat classes: Acreage, percentage breakdown by State, 1997-99 1/

State	Winter									Spring 2/					
	Hard red			Soft red			White			Hard red			White		
	1997	1998	1999	1997	1998	1999	1997	1998	1999	1997	1998	1999	1997	1998	1999
	Percent														
Alabama	--	--	--	100	100	100	--	--	--	--	--	--	--	--	--
Arizona	100	100	100	--	--	--	--	--	--	--	--	--	--	--	--
Arkansas	--	--	--	100	100	100	--	--	--	--	--	--	--	--	--
California	86	95	95	--	--	--	14	5	5	--	--	--	--	--	--
Colorado	100	100	100	--	--	--	--	--	--	84	84	84	16	16	16
Delaware	--	--	--	100	100	100	--	--	--	--	--	--	--	--	--
Florida	--	--	--	100	100	100	--	--	--	--	--	--	--	--	--
Georgia	--	--	--	100	100	100	--	--	--	--	--	--	--	--	--
Idaho	13	13	16	--	--	--	87	87	84	30	50	43	70	50	57
Illinois	2	2	2	98	98	98	--	--	--	--	--	--	--	--	--
Indiana	--	--	--	100	100	100	--	--	--	--	--	--	--	--	--
Iowa	70	70	70	30	30	30	--	--	--	--	--	--	--	--	--
Kansas	99	99	99	1	1	1	--	--	--	--	--	--	--	--	--
Kentucky	4	4	4	96	96	96	--	--	--	--	--	--	--	--	--
Louisiana	2	2	2	98	98	98	--	--	--	--	--	--	--	--	--
Maryland	--	--	--	100	100	100	--	--	--	--	--	--	--	--	--
Michigan	--	5	3	50	47	58	50	48	39	--	--	--	--	--	--
Minnesota	100	100	100	--	--	--	--	--	--	100	100	100	--	--	
Mississippi	--	--	--	100	100	100	--	--	--	--	--	--	--	--	--
Missouri	3	3	3	97	97	97	--	--	--	--	--	--	--	--	--
Montana	99	99	99	--	--	--	1	1	1	99	99	99	1	1	1
Nebraska	100	100	100	--	--	--	--	--	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	100	100	100	12	12	12	88	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	99	99	99	1	1	1	--	--	--	--	--	--	--	--	--
Oregon	2	2	1	--	--	--	98	98	99	15	15	27	85	85	73
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	29
Virginia	--	--	--	100	100	100	--	--	--	--	--	--	--	--	--
Washington	9	7	8	--	--	--	91	93	92	28	24	26	72	76	74
West Virginia	--	--	--	100	100	100	--	--	--	--	--	--	--	--	--
Wisconsin	--	--	--	93	93	93	7	7	7	100	100	100	--	--	--
Wyoming	100	100	100	--	--	--	--	--	--	97	97	97	3	3	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 6--Wheat classes: Estimated acreage, yield, and production, 1982-2000 1/

Year	Planted acreage	Harvested acreage	Yield	Production
	---Million acres---		Bu./acre	Million bushels
Hard red winter:				
1982	43.2	37.0	33.6	1,243.6
1983	41.3	30.2	39.7	1,197.8
1984	43.6	34.1	36.7	1,250.6
1985	42.5	34.5	35.7	1,230.1
1986	39.4	31.5	32.3	1,017.2
1987	36.3	28.6	35.6	1,019.2
1988	34.4	26.8	32.9	881.9
1989	37.5	26.1	27.2	711.0
1990	38.0	32.6	36.7	1,195.6
1991	35.5	27.4	32.8	900.8
1992	36.2	29.5	32.8	967.2
1993	36.3	30.1	35.4	1,065.9
1994	34.9	28.7	33.8	971.2
1995	33.8	27.7	29.8	825.0
1996	35.4	25.7	29.5	759.3
1997	34.0	28.7	38.3	1,098.3
1998	32.2	27.2	43.3	1,179.5
1999	30.8	24.4	43.3	1,055.0
2000	30.3	NA	NA	NA
Hard red spring:				
1982	15.5	15.2	32.4	492.7
1983	11.1	10.7	30.2	322.7
1984	12.0	11.7	34.9	408.8
1985	14.0	13.1	35.1	460.2
1986	14.6	14.1	32.0	451.4
1987	13.3	13.0	33.1	430.6
1988	13.0	10.1	17.9	181.2
1989	16.5	15.9	27.3	433.5
1990	16.2	15.4	36.1	554.7
1991	14.0	13.5	31.9	431.2
1992	17.8	17.3	40.9	706.7
1993	17.5	16.0	31.9	511.8
1994	17.6	17.0	30.3	515.3
1995	16.1	15.7	30.2	474.8
1996	19.1	18.8	33.6	630.7
1997	18.3	17.5	28.1	491.3
1998	14.8	14.4	33.8	486.4
1999	14.3	13.8	32.5	447.9
2000	NA	NA	NA	NA
Durum:				
1982	4.3	4.2	34.7	145.9
1983	2.6	2.5	29.2	73.0
1984	3.3	3.2	32.3	103.4
1985	3.2	3.1	36.3	112.5
1986	3.0	2.9	33.8	97.9
1987	3.3	3.3	28.1	92.6
1988	3.3	2.8	15.7	44.8
1989	3.8	3.7	25.1	92.2
1990	3.6	3.5	34.9	122.4
1991	3.3	3.2	32.5	104.0
1992	2.5	2.5	39.7	99.9
1993	2.2	2.1	33.6	70.5
1994	2.8	2.7	35.6	96.7
1995	3.4	3.4	30.5	102.3
1996	3.6	3.6	32.6	116.1
1997	3.3	3.2	27.6	87.8
1998	3.8	3.7	37.0	138.1
1999	4.0	3.6	27.8	99.3
2000	NA	NA	NA	NA

See footnotes at end of table.

Continued--

Appendix table 6--Wheat classes: Estimated acreage, yield, and production, 1982-99--Continued

Year	Planted acreage	Harvested acreage	Yield	Production
	---Million acres---		Bu./acre	Million bushels
Soft red winter:				
1982	17.2	15.8	37.3	588.9
1983	15.6	12.8	39.4	504.2
1984	14.5	12.6	42.2	531.4
1985	10.6	9.1	40.4	367.4
1986	10.1	7.7	37.9	292.0
1987	9.0	7.6	46.0	349.5
1988	10.9	9.6	49.2	472.7
1989	13.4	12.0	45.8	548.9
1990	14.2	12.8	42.9	547.1
1991	11.4	9.5	34.4	325.2
1992	10.5	8.6	49.3	426.7
1993	10.7	9.3	43.1	401.3
1994	9.9	8.5	51.6	438.2
1995	10.6	9.3	49.0	455.6
1996	11.7	9.7	43.4	419.8
1997	9.9	8.7	54.2	472.0
1998	10.2	9.1	48.9	442.7
1999	9.1	8.0	56.6	453.4
2000	9.2	NA	NA	NA
White:				
1982	6.0	5.7	51.6	294.0
1983	5.9	5.3	60.8	322.0
1984	5.8	5.3	56.7	300.6
1985	5.3	4.9	51.8	253.9
1986	4.9	4.5	51.6	232.0
1987	3.9	3.5	61.6	215.8
1988	4.0	3.8	61.0	231.6
1989	5.4	4.5	55.8	251.0
1990	5.2	5.0	62.7	313.4
1991	5.8	4.2	52.1	218.9
1992	5.2	4.9	54.3	266.3
1993	5.5	5.2	66.7	346.9
1994	5.1	4.9	61.1	299.6
1995	5.1	4.9	66.6	325.1
1996	5.3	5.1	68.9	351.6
1997	4.9	4.7	70.2	332.1
1998	4.8	4.6	65.3	300.7
1999	4.5	4.2	59.3	246.8
2000	4.4 2/	NA	NA	NA

NA = Not available.

1/ Data for 1999 based on winter wheat seedings. 2/ Winter only.

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

Appendix table 7--Wheat: Marketing year supply and disappearance, 1965/66-1999/2000 1/

Year beginning June 1	Supply				Disappearance						Ending stocks May 31		
					Domestic use								
	Beginning stocks	Production	Imports 2/	Total	Food	Seed	Feed 3/	Total	Exports 2/	Total disappearance	Gov't. owned	Privately owned 4/	Total
	Million bushels												
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	299.2	361.3	660.5
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	122.0	390.8	512.8
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	100.1	530.1	630.2
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	139.5	764.5	904.0
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	277.2	705.4	982.6
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	352.6	470.2	822.8
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	355.1	628.3	983.4
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	6.3	590.8	597.1
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	0.6	339.5	340.1
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	NA	435.0	435.0
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	0.2	665.4	665.6
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	0.1	1,113.1	1,113.2
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	48.3	1,129.5	1,177.8
1978/79	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	51.1	873.0	924.1
1979/80	924.1	2,134.1	2.1	3,060.3	596.1	101.0	85.9	783.0	1,375.3	2,158.3	187.8	714.2	902.0
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	199.7	789.4	989.1
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	190.3	969.1	1,159.4
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	192.0	1,323.1	1,515.1
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	188.0	1,210.6	1,398.6
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	377.6	1,047.6	1,425.2
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	601.7	1,303.3	1,905.0
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	830.1	990.8	1,820.9
1987/88	1,820.9	2,107.7	16.1	3,944.7	720.7	85.0	290.2	1,096.0	1,587.9	2,683.8	283.0	977.8	1,260.8
1988/89	1,260.8	1,812.2	22.7	3,095.7	725.8	103.0	150.5	979.2	1,414.9	2,394.1	190.5	511.1	701.6
1989/90	701.6	2,036.6	22.5	2,760.7	748.9	104.3	139.1	992.3	1,232.0	2,224.3	116.6	419.9	536.5
1990/91	536.5	2,729.8	36.4	3,302.6	789.8	92.9	482.4	1,365.1	1,069.5	2,434.5	162.7	705.4	868.1
1991/92	868.1	1,980.1	40.7	2,889.0	789.5	97.7	244.5	1,131.6	1,282.3	2,413.9	152.0	323.0	475.0
1992/93	475.0	2,466.8	70.0	3,011.8	834.8	99.1	193.6	1,127.6	1,353.6	2,481.2	150.0	380.7	530.7
1993/94	530.7	2,396.4	108.8	3,035.9	871.7	96.3	271.7	1,239.7	1,227.8	2,467.4	150.3	418.2	568.5
1994/95	568.5	2,321.0	91.9	2,981.4	853.0	89.0	344.5	1,286.6	1,188.3	2,474.8	142.1	364.5	506.6
1995/96	506.6	2,182.7	67.9	2,757.2	882.9	103.5	153.7	1,140.1	1,241.1	2,381.2	118.2	257.8	376.0
1996/97	376.0	2,277.4	92.3	2,745.7	890.7	102.3	307.6	1,300.6	1,001.5	2,302.1	93.0	350.6	443.6
1997/98	443.6	2,481.5	94.9	3,020.0	914.1	92.5	250.5	1,257.1	1,040.4	2,297.5	94.2	628.3	722.5
1998/99	722.5	2,547.3	103.0	3,372.8	907.3	80.7	396.6	1,384.5	1,042.4	2,426.9	127.9	818.0	945.9
1999/2000 5/	945.9	2,302.4	95.0	3,343.4	905.0	91.0	300.0	1,296.0	1,050.0	2,346.0	100.0	897.4	997.4

NA = Not available.

1/ Totals might 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 reserve loans. 5/ Projected.

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

Appendix table 8--Wheat: Quarterly supply and disappearance, 1977/78-1999/2000 1/

Year and periods beginning June 1	Supply				Disappearance						Ending stocks		
					Domestic use								
	Beginning stocks	Production	Imports 2/	Total	Food	Seed	Feed 3/	Total	Exports 2/	Total disap-pearance	Gov't. owned	Privately owned 4/	Total
	Million bushels												
1977/78:													
Jun-Aug	1,113.2	2,045.5	0.7	3,159.4	142.7	1.0	117.1	260.8	266.9	527.7	7.8	2,623.9	2,631.7
Sep-Nov	2,631.7	---	0.5	2,632.2	154.3	54.0	37.0	245.3	247.5	492.8	29.0	2,110.4	2,139.4
Dec-Feb	2,139.4	---	0.4	2,139.8	143.7	1.0	28.3	173.0	260.2	433.2	39.1	1,667.5	1,706.6
Mar-May	1,706.6	---	0.3	1,706.9	145.8	24.0	10.1	179.9	349.2	529.1	48.3	1,129.5	1,177.8
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	48.3	1,129.5	1,177.8
1978/79:													
Jun-Aug	1,177.8	1,775.5	0.6	2,953.9	145.2	1.0	80.8	227.0	366.8	593.8	49.4	2,310.7	2,360.1
Sep-Nov	2,360.1	---	0.5	2,360.6	151.8	58.0	33.0	242.8	342.2	585.0	50.0	1,725.6	1,775.6
Dec-Feb	1,775.6	---	0.4	1,776.0	145.9	2.0	21.4	169.3	238.0	407.3	50.3	1,318.4	1,368.7
Mar-May	1,368.1	---	0.4	1,369.1	149.5	26.0	22.3	197.8	247.2	445.0	51.1	873.0	924.1
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	51.1	873.0	924.1
1979/80:													
Jun-Aug	924.1	2,134.1	0.6	3,058.8	150.1	1.0	38.1	189.2	374.6	563.8	49.9	2,445.1	2,495.0
Sep-Nov	2,495.0	---	0.6	2,495.6	159.3	66.0	-8.5	216.8	402.8	619.6	49.9	1,826.1	1,876.0
Dec-Feb	1,876.0	---	0.5	1,876.5	148.4	3.0	31.1	182.5	301.5	484.0	49.5	1,343.0	1,392.5
Mar-May	1,392.5	---	0.4	1,392.9	138.3	31.0	25.2	194.5	296.4	490.9	187.8	714.2	902.0
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	187.8	714.2	902.0
1980/81:													
Jun-Aug	902.0	2,380.9	0.8	3,283.7	144.2	2.0	48.1	194.3	375.4	569.7	202.1	2,511.9	2,714.0
Sep-Nov	2,714.0	---	0.6	2,714.6	162.1	76.0	4.9	243.0	379.3	622.3	202.9	1,889.4	2,092.3
Dec-Feb	2,092.3	---	0.6	2,092.9	158.8	4.0	8.1	170.9	399.2	570.1	203.2	1,319.6	1,522.8
Mar-May	1,522.8	---	0.5	1,523.3	145.4	31.0	-2.1	174.3	359.9	534.2	199.7	789.4	989.1
Mkt. year	902.0	2,380.9	2.5	3,285.4	610.5	113.0	59.0	782.5	1,513.8	2,296.3	199.7	789.4	989.1
1981/82													
Jun-Aug	989.1	2,785.4	0.7	3,775.2	149.2	1.0	144.9	295.1	424.1	719.2	195.4	2,860.6	3,056.0
Sep-Nov	3,056.0	---	0.8	3,056.8	161.7	78.0	-7.1	232.6	485.8	718.4	190.6	2,147.8	2,338.4
Dec-Feb	2,338.4	---	0.7	2,339.1	150.1	4.0	-7.6	146.5	415.0	561.5	190.2	1,587.4	1,777.6
Mar-May	1,777.6	---	0.6	1,778.2	141.4	27.0	4.6	173.0	445.8	618.8	190.3	969.1	1,159.4
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	190.3	969.1	1,159.4
1982/83:													
Jun-Aug	1,159.4	2,765.0	1.2	3,925.6	152.9	1.0	131.3	285.2	411.1	696.3	193.3	3,036.0	3,229.3
Sep-Nov	3,229.3	---	3.0	3,232.3	159.5	74.0	18.8	252.3	337.2	589.5	189.7	2,453.1	2,642.8
Dec-Feb	2,642.8	---	2.6	2,645.4	152.4	3.0	24.2	179.6	393.8	573.4	184.6	1,887.4	2,072.0
Mar-May	2,072.0	---	0.8	2,072.8	151.6	19.0	20.5	191.1	366.6	557.7	192.0	1,323.1	1,515.1
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	192.0	1,323.1	1,515.1

See footnotes at end of table.

Continued---

Appendix table 8--Wheat: Quarterly supply and disappearance, 1977/78-1999/2000 1/--Continued

Year and periods beginning June 1	Supply				Disappearance						Ending stocks		
					Domestic use								
	Beginning stocks	Production	Imports 2/	Total	Food	Seed	Feed 3/	Total	Exports 2/	Total disap-pearance	Gov't. owned	Privately owned 4/	Total
	Million bushels												
1983/84:													
Jun-Aug	1,515.1	2,419.8	0.7	3,935.6	158.7	1.0	196.1	355.8	346.7	702.5	365.0	2,868.1	3,233.1
Sep-Nov	3,233.1	---	0.9	3,234.0	163.1	75.0	100.5	338.6	359.7	698.3	375.8	2,159.9	2,535.7
Dec-Feb	2,535.7	---	1.1	2,536.8	166.8	3.0	48.3	218.1	367.1	585.3	313.8	1,637.7	1,951.5
Mar-May	1,951.5	---	1.1	1,952.6	154.0	21.0	26.2	201.2	352.8	554.0	188.0	1,210.6	1,398.6
Mkt. year	1,515.1	2,419.8	3.8	3,938.7	642.6	100.0	371.1	1,113.7	1,426.3	2,540.0	188.0	1,210.6	1,398.6
1984/85:													
Jun-Aug	1,398.6	2,594.8	3.8	3,997.2	157.8	1.0	279.6	438.4	398.7	837.1	278.1	2,882.0	3,160.1
Sep-Nov	3,160.1	---	2.2	3,162.3	168.5	69.0	101.5	339.0	484.8	823.8	359.4	1,979.1	2,338.5
Dec-Feb	2,338.5	---	1.1	2,339.6	164.2	4.0	35.5	203.7	335.1	538.8	375.7	1,414.7	1,800.8
Mar-May	1,800.8	---	2.3	1,803.1	160.5	24.0	-9.5	175.0	202.9	377.9	377.6	1,047.6	1,425.2
Mkt. year	1,398.6	2,594.8	9.4	4,002.8	651.0	98.0	407.1	1,156.1	1,421.5	2,577.6	377.6	1,047.6	1,425.2
1985/86:													
Jun-Aug	1,425.2	2,424.1	5.1	3,854.4	165.8	1.0	235.5	402.3	248.6	650.9	406.7	2,796.8	3,203.5
Sep-Nov	3,203.5	---	5.1	3,208.6	185.6	63.0	65.9	314.4	250.7	565.2	517.1	2,126.3	2,643.4
Dec-Feb	2,643.4	---	2.7	2,646.1	162.2	4.0	1.8	168.0	222.3	390.3	526.3	1,729.5	2,255.8
Mar-May	2,255.8	---	3.5	2,259.3	160.8	25.0	-18.9	166.8	187.4	354.3	601.7	1,303.3	1,905.0
Mkt. year	1,425.2	2,424.1	16.4	3,865.7	674.4	93.0	284.3	1,051.7	909.0	1,960.7	601.7	1,303.3	1,905.0
1986/87:													
Jun-Aug	1,905.0	2,090.6	4.3	3,999.9	171.2	1.0	352.3	524.4	318.9	843.3	793.8	2,362.7	3,156.5
Sep-Nov	3,156.5	---	3.6	3,160.1	192.8	57.0	-20.8	229.0	257.7	486.7	863.9	1,809.6	2,673.5
Dec-Feb	2,673.5	---	6.0	2,679.5	171.7	3.0	48.7	223.4	205.7	429.1	905.3	1,345.1	2,250.4
Mar-May	2,250.4	---	7.3	2,257.7	176.6	23.0	20.9	220.5	216.3	436.8	830.1	990.8	1,820.9
Mkt. year	1,905.0	2,090.6	21.2	4,016.8	712.3	84.0	401.1	1,197.4	998.6	2,196.0	830.1	990.8	1,820.9
1987/88:													
Jun-Aug	1,820.9	2,107.7	2.7	3,931.3	181.0	1.0	363.8	545.8	409.0	954.8	798.8	2,189.7	2,976.5
Sep-Nov	2,976.5	---	4.5	2,981.0	193.0	58.0	-79.1	172.0	308.5	480.4	755.4	1,750.5	2,500.6
Dec-Feb	2,500.6	---	3.7	2,504.3	172.1	3.0	-7.3	167.7	413.0	580.8	450.1	1,473.4	1,923.5
Mar-May	1,923.5	---	5.1	1,928.7	174.6	23.0	12.8	210.4	457.4	667.8	283.0	977.8	1,260.8
Mkt. year	1,820.9	2,107.7	16.1	3,944.7	720.7	85.0	290.2	1,096.0	1,587.9	2,683.8	283.0	977.8	1,260.8
1988/89:													
Jun-Aug	1,260.8	1,812.2	8.6	3,081.6	183.3	1.0	282.2	466.4	361.6	828.1	250.0	2,003.6	2,253.6
Sep-Nov	2,253.6	---	6.3	2,259.8	197.3	67.0	-49.4	214.9	329.0	543.9	213.0	1,502.9	1,715.9
Dec-Feb	1,715.9	---	3.7	1,719.6	173.4	3.0	-44.5	131.9	360.0	491.9	203.2	1,024.5	1,227.7
Mar-May	1,227.7	---	4.2	1,231.9	171.8	32.0	-37.8	166.0	364.2	530.2	190.5	511.1	701.6
Mkt. year	1,260.8	1,812.2	22.7	3,095.7	725.8	103.0	150.5	979.2	1,414.9	2,394.1	190.5	511.1	701.6

See footnotes at end of table.

Continued---

Appendix table 8--Wheat: Quarterly supply and disappearance, 1977/78-1999/2000 1/--Continued

Year and periods beginning June 1	Supply				Disappearance						Ending stocks		
					Domestic use								
	Beginning stocks	Production	Imports 2/	Total	Food	Seed	Feed 3/	Total	Exports 2/	Total disap-pearance	Gov't. owned	Privately owned 4/	Total
	Million bushels												
1989/90:													
Jun-Aug	701.6	2,036.6	5.9	2,744.1	190.7	1.7	264.9	457.4	368.7	826.1	167.9	1,750.1	1,918.0
Sep-Nov	1,918.0	---	7.1	1,925.2	191.7	70.3	-87.8	174.1	328.6	502.7	154.5	1,268.0	1,422.5
Dec-Feb	1,422.5	---	4.7	1,427.1	184.3	2.7	37.4	224.4	259.6	484.0	136.5	806.6	943.1
Mar-May	943.1	---	4.8	947.9	182.2	29.6	-75.4	136.4	275.1	411.5	116.6	419.9	536.5
Mkt. year	701.6	2,036.6	22.5	2,760.7	748.9	104.3	139.1	992.3	1,232.0	2,224.3	116.6	419.9	536.5
1990/91:													
Jun-Aug	536.5	2,729.8	8.0	3,274.2	194.1	1.7	399.7	595.5	267.7	863.1	104.6	2,306.5	2,411.1
Sep-Nov	2,411.1	---	13.4	2,424.5	210.6	62.9	-38.3	235.2	279.4	514.5	129.9	1,780.0	1,909.9
Dec-Feb	1,909.9	---	7.8	1,917.7	191.0	2.1	101.5	294.6	225.5	520.0	152.5	1,245.2	1,397.7
Mar-May	1,397.7	---	7.2	1,404.9	194.1	26.3	19.5	239.9	296.9	536.8	162.7	705.4	868.1
Mkt. year	536.5	2,729.8	36.4	3,302.6	789.8	92.9	482.4	1,365.1	1,069.5	2,434.5	162.7	705.4	868.1
1991/92:													
Jun-Aug	868.1	1,980.1	7.8	2,856.1	189.4	1.2	359.1	549.6	251.7	801.3	162.8	1,891.9	2,054.7
Sep-Nov	2,054.7	---	7.3	2,062.0	213.0	62.2	-26.9	248.3	365.9	614.2	160.7	1,287.1	1,447.8
Dec-Feb	1,447.8	---	10.7	1,458.5	192.9	2.4	-0.5	194.8	371.7	566.5	156.9	735.1	892.0
Mar-May	892.0	---	14.9	906.9	194.2	31.9	-87.3	138.9	293.0	431.9	152.0	268.6	475.0
Mkt. year	868.1	1,980.1	40.7	2,889.0	789.5	97.7	244.5	1,131.6	1,282.3	2,413.9	152.0	323.0	475.0
1992/93:													
Jun-Aug	475.0	2,466.8	20.1	2,962.0	211.5	1.4	345.9	558.8	282.6	841.4	151.6	1,969.0	2,120.6
Sep-Nov	2,120.6	---	16.4	2,137.0	218.8	63.4	-81.9	200.3	345.0	545.3	151.1	1,440.6	1,591.7
Dec-Feb	1,591.7	---	17.4	1,609.1	197.0	2.6	4.8	204.5	356.3	560.8	150.4	897.9	1,048.3
Mar-May	1,048.3	---	16.1	1,064.4	207.5	31.7	-75.2	164.0	369.7	533.7	150.0	380.7	530.7
Mkt. year	475.0	2,466.8	70.0	3,011.8	834.8	99.1	193.6	1,127.6	1,353.6	2,481.2	150.0	380.7	530.7
1993/94:													
Jun-Aug	530.7	2,396.4	14.6	2,941.7	211.3	1.3	295.8	508.4	300.7	809.1	149.9	1,982.7	2,132.6
Sep-Nov	2,132.6	---	30.1	2,162.7	225.3	60.9	-38.5	247.7	329.2	577.0	150.3	1,435.4	1,585.7
Dec-Feb	1,585.7	---	26.9	1,612.6	211.0	2.3	39.0	252.3	332.3	584.6	150.4	877.6	1,028.0
Mar-May	1,028.0	---	37.2	1,065.2	224.1	31.8	-24.6	231.2	265.5	496.7	150.3	418.2	568.5
Mkt. year	530.7	2,396.4	108.8	3,035.9	871.7	96.3	271.7	1,239.7	1,227.8	2,467.4	150.3	418.2	568.5
1994/95:													
Jun-Aug	568.5	2,321.0	30.7	2,920.2	213.2	1.6	376.3	591.0	259.6	850.7	146.4	1,923.1	2,069.5
Sep-Nov	2,069.5	---	21.4	2,090.9	229.3	61.0	-28.6	261.6	338.2	599.8	142.8	1,348.3	1,491.1
Dec-Feb	1,491.1	---	17.7	1,508.8	201.6	2.2	25.3	229.2	310.4	539.6	142.3	826.8	969.2
Mar-May	969.2	---	22.2	991.3	208.9	24.3	-28.5	204.7	280.1	484.8	142.1	364.5	506.6
Mkt. year	568.5	2,321.0	91.9	2,981.4	853.0	89.0	344.5	1,286.6	1,188.3	2,474.8	142.1	364.5	506.6

See footnotes at end of table.

Continued---

Appendix table 8--Wheat: Quarterly supply and disappearance, 1977/78-1999/2000 1/--Continued

Year and periods beginning June 1	Supply				Disappearance						Ending stocks		
					Domestic use								
	Beginning stocks	Production	Imports 2/	Total	Food	Seed	Feed 3/	Total	Exports 2/	Total disap-pearance	Gov't. owned	Privately owned 4/	Total
	Million bushels												
1995/96:													
Jun-Aug	506.6	2,182.7	22.7	2,712.0	215.3	8.0	305.1	528.4	302.5	830.9	141.5	1,739.6	1,881.1
Sep-Nov	1,881.1	---	16.3	1,897.4	232.2	64.4	-98.2	198.3	360.8	559.1	141.2	1,197.1	1,338.3
Dec-Feb	1,338.3	---	11.8	1,350.0	215.8	2.9	13.3	232.1	294.5	526.6	137.5	686.0	823.5
Mar-May	823.5	---	17.2	840.7	219.6	28.2	-66.5	181.3	283.4	464.6	118.2	257.8	376.0
Mkt. year	506.6	2,182.7	67.9	2,757.2	882.9	103.5	153.7	1,140.1	1,241.1	2,381.2	118.2	257.8	376.0
1996/97:													
Jun-Aug	376.0	2,277.4	14.9	2,668.3	223.7	8.7	377.5	610.0	334.1	944.1	109.5	1,614.7	1,724.2
Sep-Nov	1,724.2	---	20.7	1,744.9	233.8	59.9	-76.0	217.8	308.3	526.1	96.1	1,122.7	1,218.8
Dec-Feb	1,218.8	---	27.1	1,245.9	212.7	1.8	30.3	244.7	179.3	424.1	95.3	726.5	821.8
Mar-May	821.8	---	29.7	851.6	220.5	31.8	-24.2	228.1	179.8	407.9	93.0	350.6	443.6
Mkt. year	376.0	2,277.4	92.3	2,745.7	890.7	102.3	307.6	1,300.6	1,001.5	2,302.1	93.0	350.6	443.6
1997/98:													
Jun-Aug	443.6	2,481.5	22.7	2,947.8	227.9	3.1	352.2	583.2	288.2	871.4	93.2	1,983.1	2,076.3
Sep-Nov	2,076.3	---	22.8	2,099.1	238.7	58.6	-113.4	183.9	296.0	479.9	93.1	1,526.1	1,619.2
Dec-Feb	1,619.2	---	23.8	1,643.0	219.2	2.1	0.3	221.6	254.9	476.4	93.0	1,073.6	1,166.6
Mar-May	1,166.6	---	25.7	1,192.2	228.3	28.7	11.4	268.4	201.3	469.8	94.2	628.3	722.5
Mkt. year	443.6	2,481.5	94.9	3,020.0	914.1	92.5	250.5	1,257.1	1,040.4	2,297.5	94.2	628.3	722.5
1998/99:													
Jun-Aug	722.5	2,547.3	24.4	3,294.2	225.7	1.0	424.9	651.6	257.3	908.9	99.8	2,285.5	2,385.3
Sep-Nov	2,385.3	---	23.9	2,409.2	240.7	55.0	-73.9	221.8	291.8	513.6	126.6	1,769.1	1,895.7
Dec-Feb	1,895.7	---	27.7	1,923.4	212.7	1.4	12.0	226.2	246.8	473.0	124.2	1,326.2	1,450.4
Mar-May	1,450.4	---	27.0	1,477.4	228.1	23.2	33.6	284.9	246.6	531.5	127.9	818.0	945.9
Mkt. year	722.5	2,547.3	103.0	3,372.8	907.3	80.7	396.6	1,384.5	1,042.4	2,426.9	127.9	818.0	945.9
1999/2000: 5/													
Jun-Aug	945.9	2,302.4	30.6	3,278.9	223.7	6.4	278.8	508.9	325.0	833.9	132.2	2,312.8	2,445.0
Sep-Nov	2,445.0	---	19.5	2,464.5	238.2	53.9	2.1	294.3	291.3	585.5	115.0	1,764.0	1,879.0
Dec-Feb	1,879.0												
Mar-May													
Mkt. year	945.9	2,302.4	95.0	3,343.4	905.0	91.0	300.0	1,296.0	1,050.0	2,346.0	100.0	897.4	997.4

--- = Not applicable.

1/ Totals might 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 reserve loans. 5/ Projected.

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

Appendix table 9--Wheat: Farm prices, support prices, and ending stocks, 1955/56-1999/2000

Crop year	Ending stocks				Price received	Loan rate	Target price	Direct payment
	CCC	FOR 1/	Free	Total 2/				
	---------- Million bushels ----------					---------- $/bushel ----------		
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	51	393	481	924	2.97	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	691	868	2.61	1.95	4.00	1.28
1991/92 *	152	50	273	475	3.00	2.04	4.00	8/ 1.35
1992/93 *	150	28	353	531	3.24	2.21	4.00	0.81
1993/94 *	150	6	412	568	3.26	2.45	4.00	1.03
1994/95 *	142	0	365	507	3.45	2.58	4.00	0.61
1995/96 *	118	0	258	376	4.55	2.58	4.00	0.00
1996/97 *	93	0	351	444	4.30	2.58	---	9/ 0.87
1997/98 *	94	0	628	722	3.38	2.58	---	0.63
1998/99 *	128	0	818	946	2.65	2.58	---	0.66
1999/00 * 10/	100	0	897	997	2.45-2.55	2.58	---	0.64

--- = Not applicable. NA = Not available.

* Includes Food Security Reserve. 1/ Farmer-owned reserve. 2/ Totals might 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 1995/96. 7/ Includes special producer storage loan program. 8/ Winter wheat option 1.25. 9/ 1996/97 and forward-Production Flexibility Contract payments. 10/ Projected.

Source: Farm Service Agency and National Agricultural Stastics Service, USDA.

Appendix table 10--Wheat: Status of price support loans on specified dates, 1967/68-1999/2000

Crop year	Total stocks	Total CC inventory	Outstanding CCC loans	Farmer-owned reserve 1/	Unencumbered stocks
			Million bushels		
1967/68:					
Jun. 1	512.8	137.2	86.3	0.0	289.3
Oct. 1	1,556.2	115.4	201.8	0.0	1,239.0
Jan. 1	1,209.7	109.0	252.5	0.0	848.2
Apr. 1	838.1	103.6	239.3	0.0	495.2
1968/69:					
Jun. 1	630.2	103.6	227.2	0.0	299.4
Oct. 1	1,679.3	101.7	472.7	0.0	1,104.9
Jan. 1	1,341.4	100.4	536.2	0.0	704.8
Apr. 1	1,109.5	98.8	553.7	0.0	457.0
1969/70:					
Jun. 1	904.0	143.3	493.6	0.0	267.1
Oct. 1	1,872.4	166.2	725.9	0.0	980.3
Jan. 1	1,532.8	168.8	705.5	0.0	658.5
Apr. 1	1,197.2	167.6	654.5	0.0	375.1
1970/71:					
Jun. 1	982.6	289.6	620.0	0.0	73.0
Oct. 1	1,788.5	296.9	534.1	0.0	957.5
Jan. 1	1,410.0	282.9	477.0	0.0	650.1
Apr. 1	1,060.4	259.8	403.1	0.0	397.5
1971/72:					
Jun. 1	822.8	358.6	282.8	0.0	181.4
Oct. 1	1,873.8	376.9	425.9	0.0	1,071.0
Jan. 1	1,547.6	369.2	485.9	0.0	692.5
Apr. 1	1,210.7	363.6	457.4	0.0	389.7
1972/73:					
Jun. 1	983.4	366.1	428.3	0.0	189.0
Oct. 1	1,870.9	294.5	367.8	0.0	1,208.6
Jan. 1	1,399.0	267.3	304.9	0.0	826.8
Apr. 1	927.3	222.0	204.8	0.0	500.5
1973/74:					
Jun. 1	597.1	212.6	125.7	0.0	258.8
Oct. 1	1,451.6	139.7	49.4	0.0	1,262.5
Jan. 1	928.3	139.1	32.2	0.0	757.0
Apr. 1	548.1	135.8	1.1	0.0	411.2
1974/75:					
Jun. 1	340.1	133.0	0.4	0.0	206.7
Oct. 1	1,562.1	17.3	24.9	0.0	1,519.9
Jan. 1	1,107.5	15.6	20.7	0.0	1,071.2
Apr. 1	662.1	13.0	14.1	0.0	635.0
1975/76: 2/					
Jun. 1	435.0	0.9	13.6	0.0	420.5
Sept.1	2,100.7	0.3	19.9	0.0	2,080.5
Dec. 1	1,548.3	0.2	31.5	0.0	1,516.6
Mar. 1	1,085.5	0.0	N.A.	0.0	N.A.
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

See footnote at end of table.

Continued--

Appendix table 10--Wheat: Status of price support loans on specified dates, 1967/68-1999/2000--Continued

Crop year	Total stocks	Total CC inventory	Outstanding CCC loans	Farmer-owned reserve 1/	Unencumbered stocks
			Million bushels		
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	1,368.1	50.3	170.6	411.2	736.0
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

See footnote at end of table.

Continued--

Appendix table 10--Wheat: Status of price support loans on specified dates, 1967/68-1999/2000--Continued

Crop year	Total stocks	Total CC inventory	Outstanding CCC loans	Farmer-owned reserve 1/	Unencumbered stocks
			Million bushels		
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	2,411.1	104.6	120.3	118.8	2,067.4
Dec. 1	1,909.9	129.9	260.9	64.6	1,454.5
Mar. 1	1,397.7	152.5	328.6	19.1	897.5
1991/92:					
Jun. 1	868.1	162.7	216.8	13.7	474.9
Sept.1	2,054.7	162.8	149.1	76.1	1,666.7
Dec. 1	1,447.8	160.7	105.3	126.7	1,055.1
Mar. 1	892.0	156.9	47.3	85.2	602.6
1992/93:					
Jun. 1	475.0	152.0	19.8	49.9	253.3
Sept.1	2,120.6	151.6	76.8	37.4	1,854.8
Dec. 1	1,591.7	151.1	181.2	36.0	1,223.4
Mar. 1	1,048.3	150.4	120.4	33.0	744.5
1993/94:					
Jun. 1	530.7	150.0	47.3	28.1	305.3
Sept.1	2,132.6	149.9	103.3	21.5	1,857.9
Dec. 1	1,585.7	150.3	192.5	19.1	1,223.8
Mar. 1	1,028.0	150.4	120.9	11.5	745.2
1994/95:					
Jun. 1	568.5	150.3	67.2	5.6	345.4
Sept.1	2,069.5	146.4	147.8	0.2	1,775.1
Dec. 1	1,491.1	142.8	155.3	0.0	1,193.0
Mar. 1	969.2	142.3	110.7	0.0	716.2
1995/96:					
Jun. 1	506.6	142.1	63.7	0.0	300.8
Sept.1	1,881.1	141.5	56.7	0.0	1,682.9
Dec. 1	1,338.3	141.2	86.4	0.0	1,110.7
Mar. 1	823.5	137.5	42.6	0.0	643.4
1996/97:					
Jun. 1	376.0	118.2	13.0	0.0	244.8
Sept.1	1,724.2	109.5	42.0	0.0	1,572.7
Dec. 1	1,218.8	96.1	131.2	0.0	991.5
Mar. 1	821.8	95.3	130.3	0.0	596.2
1997/98:					
Jun. 1	443.6	93.0	72.2	0.0	278.4
Sept.1	2,076.3	93.2	101.0	0.0	1,882.1
Dec. 1	1,619.2	93.1	169.1	0.0	1,357.0
Mar. 1	1,166.6	93.0	191.3	0.0	882.3
1998/99:					
Jun. 1	722.5	94.2	133.9	0.0	494.4
Sept.1	2,385.3	99.8	236.4	0.0	2,049.1
Dec. 1	1,895.7	126.6	246.1	0.0	1,523.0
Mar. 1	1,450.4	124.2	242.2	0.0	1,084.0
1999/00: 3/					
Jun. 1	945.9	127.9	140.0	0.0	678.0
Sept.1	2,445.0	132.2	101.4	0.0	2,211.4
Dec. 1	1,879.0	115.0	117.4	0.0	1,646.6
Mar. 1	NA	109.3	105.0	0.0	NA

1/ Includes any quantity in the special producer storage loan program. 2/ The crop year was changed from July 1 to June 1 in 1976. However, the data have been adjusted to a June 1 basis. 3/ Projected. NA = Not available.

Source: Farm Service Agency and National Agricultural Stastics Service, USDA.

Appendix table 11--Wheat classes: Marketing year supply and disappearance, 1977/78-1999/2000 1/

Year beginning June 1	Supply			Disappearance			Ending stocks May 31
	Beginning stocks	Production	Total 2/	Domestic use	Exports	Total	
	Million bushels						
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	538
Hard spring	257	464	722	171	205	376	346
Soft red	38	678	716	196	460	656	60
White	93	348	441	62	270	332	109
Durum	60	183	245	57	82	139	106
All classes	989	2,785	3,777	847	1,771	2,618	1,159
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
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

See footnotes at end of table.

Continued--

Appendix table 11--Wheat classes: Marketing year supply and disappearance, 1977/78-1999/2000 1/--Continued

Year beginning June 1	Supply			Disappearance			Ending stocks May 31
	Beginning stocks	Production	Total 2/	Domestic use	Exports	Total	
	Million bushels						
1984/85:							
Hard winter	745	1,251	1,996	564	715	1,279	717
Hard spring	314	409	727	172	183	355	372
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	4,003	1,156	1,421	2,578	1,425
1985/86:							
Hard winter	717	1,230	1,947	545	393	938	1,009
Hard spring	372	460	842	179	165	344	498
Soft red	64	367	431	204	148	352	79
White	173	254	428	80	150	230	198
Durum	100	113	217	42	53	95	121
All classes	1,425	2,424	3,866	1,052	909	1,961	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	524	901	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	53	62	115	83
All classes	1,821	2,108	3,945	1,096	1,588	2,684	1,261
1988/89:							
Hard winter	567	882	1,449	507	639	1,146	302
Hard spring	402	181	590	177	194	371	219
Soft red	75	473	547	193	315	508	39
White	135	232	370	43	247	290	81
Durum	83	45	139	59	20	79	60
All classes	1,261	1,812	3,096	979	1,415	2,394	702
1989/90:							
Hard winter	302	711	1,013	439	359	798	215
Hard spring	219	433	659	224	280	504	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	2,761	992	1,232	2,224	536
1990/91:							
Hard winter	215	1,196	1,411	681	369	1,050	360
Hard spring	155	555	718	238	201	439	279
Soft red	32	544	575	265	230	495	80
White	85	313	408	105	216	321	87
Durum	50	122	191	76	53	129	62
All classes	536	2,730	3,303	1,365	1,069	2,435	868

See footnotes at end of table.

Continued--

Appendix table 11--Wheat classes: Marketing year supply and disappearance, 1977/78-1999/2000 1/--Continued

Year beginning June 1	Supply			Disappearance			Ending stocks
	Beginning stocks	Production	Total 2/	Domestic use	Exports	Total	May 31
	Million bushels						
1991/92:							
Hard winter	360	901	1,261	507	559	1,067	194
Hard spring	279	431	726	215	380	595	131
Soft red	80	325	405	259	105	364	41
White	87	219	311	65	193	258	54
Durum	62	104	186	86	45	131	55
All classes	868	1,980	2,889	1,132	1,282	2,414	475
1992/93:							
Hard winter	194	967	1,162	494	464	958	204
Hard spring	131	707	873	264	438	702	171
Soft red	41	427	468	215	210	425	43
White	54	266	329	70	195	265	64
Durum	55	100	180	85	47	132	49
All classes	475	2,467	3,012	1,128	1,354	2,481	531
1993/94:							
Hard winter	204	1,066	1,273	560	486	1,046	227
Hard spring	171	512	749	282	266	548	201
Soft red	43	401	444	226	173	399	45
White	64	347	420	104	249	353	67
Durum	49	70	150	68	54	122	28
All classes	531	2,396	3,036	1,240	1,228	2,467	568
1994/95:							
Hard winter	227	971	1,202	586	422	1,008	194
Hard spring	201	515	767	282	292	574	193
Soft red	45	438	484	235	212	447	37
White	67	300	382	103	222	325	57
Durum	28	97	147	81	40	121	26
All classes	568	2,321	2,981	1,287	1,188	2,475	507
1995/96:							
Hard winter	194	825	1,019	481	384	865	154
Hard spring	193	475	698	262	330	592	106
Soft red	37	456	492	207	250	457	35
White	57	325	401	108	238	346	55
Durum	26	102	147	82	39	121	25
All classes	507	2,183	2,757	1,140	1,241	2,381	376
1996/97:							
Hard winter	154	759	914	485	286	771	143
Hard spring	106	631	790	324	300	624	166
Soft red	35	420	455	270	140	410	45
White	55	352	422	126	237	363	59
Durum	25	116	165	96	38	135	31
All classes	376	2,277	2,746	1,301	1,002	2,302	444
1997/98:							
Hard winter	143	1,098	1,242	573	362	935	307
Hard spring	166	491	714	253	241	494	220
Soft red	45	472	517	257	180	437	80
White	59	332	399	104	205	309	90
Durum	31	88	148	69	53	122	26
All classes	444	2,481	3,020	1,257	1,040	2,298	722
1998/99:							
Hard winter	307	1,179	1,487	599	453	1,052	435
Hard spring	220	486	765	284	247	532	233
Soft red	80	443	523	282	105	387	136
White	90	301	401	116	198	314	87
Durum	26	138	197	103	40	143	55
All classes	722	2,547	3,373	1,384	1,042	2,427	946
1999/2000: 3/							
Hard winter	435	1,055	1,491	539	485	1,024	467
Hard spring	233	448	736	295	215	510	226
Soft red	136	453	589	283	160	443	147
White	87	247	341	96	150	246	94
Durum	55	99	186	84	40	124	63
All classes	946	2,302	3,343	1,296	1,050	2,346	997

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

Source: Economic Research Service and National Agricultural Statictics Service, USDA.

Appendix table 12--U.S. wheat exports: Grain, flour, and products, by month, 1980/81-1999/2000 1/

Year	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
						1,000 bushels							
						Wheat (grain only)							
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	1,448,556
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	127,060	141,780	115,916	90,658	1,346,336
1989/90	90,490	137,933	131,176	150,698	89,336	68,664	81,813	78,343	87,647	104,903	84,576	71,572	1,177,152
1990/91	88,235	80,831	92,441	108,812	84,488	76,800	56,444	66,463	91,314	112,809	88,526	81,760	1,028,923
1991/92	59,167	79,319	97,794	94,991	127,116	136,378	112,445	132,413	115,126	103,024	116,850	59,764	1,234,386
1992/93	75,045	96,382	99,290	92,723	132,232	108,235	111,389	111,584	118,607	118,782	126,820	104,540	1,295,629
1993/94	85,874	103,836	100,516	104,723	100,618	112,667	121,900	109,389	87,250	96,872	71,575	82,838	1,178,058
1994/95	73,364	66,314	103,941	117,555	101,450	107,549	104,139	93,735	97,478	98,876	85,251	75,006	1,124,657
1995/96	78,355	88,649	119,797	131,424	117,679	105,535	99,175	96,085	91,876	108,800	90,373	78,303	1,206,051
1996/97	73,715	108,437	145,840	125,910	98,302	75,245	50,979	63,431	59,039	55,936	69,821	47,640	974,296
1997/98	65,654	92,465	123,141	119,029	89,331	79,528	80,906	97,090	68,972	63,914	64,623	68,359	1,013,012
1998/99	67,372	86,605	96,664	90,507	109,168	81,913	96,486	73,017	63,794	65,522	86,066	85,057	1,002,170
1999/00	90,594	110,814	107,168	91,438	96,154	89,211	84,460	71,763					
						Flour (grain equivalent) 2/							
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	48,210
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	823	2,463	2,520	50,790
1988/89	7,036	6,400	6,002	2,402	7,908	3,368	6,086	4,108	6,040	3,974	6,469	5,205	64,998
1989/90	907	1,897	5,775	8,917	3,579	6,817	3,606	4,943	3,124	4,466	6,132	3,287	53,450
1990/91	1,035	2,207	2,785	1,464	3,303	3,407	4,480	2,698	3,809	6,301	3,719	3,525	38,733
1991/92	5,582	5,362	4,207	3,743	1,179	2,222	3,140	2,549	5,549	4,630	3,771	4,579	46,514
1992/93	3,257	5,284	2,856	2,325	3,840	4,641	3,903	2,325	7,744	5,832	7,499	5,285	54,789
1993/94	4,408	3,793	1,811	3,642	3,840	3,416	3,170	5,838	4,390	6,099	4,198	3,368	47,972
1994/95	2,922	6,824	5,636	3,407	3,105	4,721	4,734	2,805	7,085	7,617	6,945	6,005	61,807
1995/96	2,822	5,018	7,520	2,249	2,080	1,221	3,458	808	2,537	1,230	2,415	1,831	33,189
1996/97	2,006	2,008	1,669	3,133	2,496	2,748	2,240	1,347	1,920	2,521	1,259	2,125	25,472
1997/98	1,803	2,900	1,621	3,101	2,524	1,634	3,118	1,426	2,725	1,309	1,269	963	24,393
1998/99	1,971	1,740	2,027	2,914	3,812	2,354	6,838	2,551	3,341	4,126	3,105	1,948	36,728
1999/00	5,900	5,085	3,673	6,503	4,576	2,332	6,566	2,924					28,068

See footnotes at end of table.

Continued--

Appendix table 12--U.S. wheat exports: Grain, flour, and products, by month, 1980/81-1999/2000 1/--Continued

Year	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
							1,000 bushels						
							Wheat products (grain equivalent) 3/						
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	557	86	26	110	101	28	3,519
1989/90	31	33	457	74	463	38	46	44	44	50	45	32	1,356
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	187	138	128	119	143	1,405
1992/93	144	136	196	140	195	633	475	132	165	141	101	703	3,162
1993/94	110	179	135	130	90	121	111	142	141	157	212	199	1,729
1994/95	229	223	195	130	145	141	147	112	136	137	109	109	1,812
1995/96	113	115	146	186	193	193	174	200	165	160	130	128	1,904
1996/97	133	113	142	149	172	135	119	110	155	168	166	192	1,753
1997/98	207	180	265	221	329	269	240	205	188	336	173	371	2,985
1998/99	218	396	272	344	510	237	274	260	271	271	248	214	3,516
1999/00	520	571	656	401	374	283	246	322					
							Total wheat, flour, and products						
1980/81	101,335	126,902	147,183	142,948	121,017	115,369	135,017	133,529	130,624	136,237	139,432	84,239	1,513,833
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	134,484	102,953	99,725	89,928	147,935	155,951	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	150,520	156,426	150,437	1,587,876
1988/89	129,299	118,322	114,013	130,455	101,735	96,831	106,791	120,040	133,126	145,864	122,486	95,891	1,414,852
1989/90	91,429	139,863	137,408	159,688	93,378	75,519	85,465	83,330	90,814	109,419	90,753	74,891	1,231,958
1990/91	89,320	83,079	95,292	110,740	88,324	80,311	60,985	69,268	95,226	119,205	92,320	85,382	1,069,452
1991/92	64,835	84,786	102,080	98,818	128,396	138,713	115,707	135,149	120,813	107,781	120,740	64,486	1,282,305
1992/93	78,446	101,801	102,342	95,188	136,268	113,509	115,767	114,041	126,517	124,755	134,420	110,527	1,353,580
1993/94	90,393	107,809	102,462	108,494	104,548	116,204	125,181	115,369	91,781	103,128	75,985	86,405	1,227,759
1994/95	76,515	73,361	109,772	121,091	104,699	112,411	109,020	96,652	104,699	106,631	92,305	81,120	1,188,277
1995/96	81,290	93,783	127,463	133,859	119,952	106,948	102,806	97,093	94,578	110,189	92,919	80,262	1,241,143
1996/97	75,854	110,558	147,651	129,192	100,970	78,129	53,338	64,889	61,114	58,625	71,246	49,957	1,001,522
1997/98	67,665	95,545	125,028	122,352	92,184	81,430	84,264	98,722	71,885	65,560	66,065	69,692	1,040,391
1998/99	69,562	88,740	98,963	93,765	113,490	84,505	103,598	75,828	67,406	69,919	89,419	87,219	1,042,414
1999/00	97,013	116,471	111,496	98,343	101,105	91,826	91,272	75,009					

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

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

Appendix table 13--U.S. wheat imports: Grain, flour and products, by month, 1983/84-1999/2000 1/

Crop year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	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	2,464	2,835	3,284	2,262	2,586	1,419	1,111	1,311	1,241	1,569	1,660	926	22,668
1989/90:													
Grain	655	641	1,830	785	931	2,785	1,194	985	471	412	864	1,029	12,583
Flour and products	1,025	945	772	863	1,071	672	678	591	732	595	689	1,250	9,884
Total	1,680	1,587	2,602	1,648	2,002	3,457	1,873	1,576	1,203	1,008	1,553	2,279	22,467
1990/91:													
Grain	1,105	842	3,013	3,868	3,776	3,265	2,687	835	1,347	1,331	2,404	1,103	25,574
Flour and products	741	1,393	905	935	784	762	1,276	604	1,032	749	890	763	10,832
Total	1,846	2,234	3,918	4,803	4,560	4,026	3,963	1,440	2,379	2,079	3,294	1,866	36,407
1991/92:													
Grain	1,302	1,421	2,573	407	2,747	1,815	3,547	2,077	2,754	2,969	4,026	5,380	31,019
Flour and products	838	817	860	765	836	719	811	827	642	870	900	790	9,675
Total	2,140	2,238	3,433	1,171	3,583	2,534	4,358	2,904	3,396	3,839	4,926	6,170	40,694

See footnotes at end of table.

Continued--

Appendix table 13--U.S. wheat imports: Grain, flour and products, by month, 1983/84-1999/2000 1/--Continued

Crop year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
							1,000 bushels						
1992/93:													
Grain	4,481	4,579	6,871	5,395	4,706	3,377	6,295	3,715	4,727	4,998	4,267	3,448	56,859
Flour and products	953	1,085	2,168	859	1,045	1,051	1,029	902	686	1,079	1,140	1,146	13,142
Total	5,434	5,664	9,040	6,254	5,751	4,428	7,324	4,617	5,413	6,077	5,406	4,594	70,001
1993/94:													
Grain	2,579	2,048	6,205	7,089	9,544	9,530	8,274	6,413	7,784	8,243	10,559	13,020	91,288
Flour and products	1,232	1,227	1,304	1,244	1,432	1,282	1,402	1,442	1,542	1,805	1,655	1,962	17,529
Total	3,810	3,275	7,510	8,333	10,976	10,812	9,676	7,855	9,326	10,048	12,214	14,982	108,817
1994/95:													
Grain	11,009	8,932	5,672	5,253	5,801	5,462	4,327	4,109	3,344	4,487	5,771	6,395	70,562
Flour and products	1,829	1,557	1,724	1,368	1,673	1,868	2,382	1,790	1,699	2,044	1,713	1,740	21,386
Total	12,837	10,489	7,395	6,621	7,473	7,329	6,709	5,899	5,043	6,531	7,484	8,135	91,946
1995/96:													
Grain	6,626	5,895	4,832	4,494	3,478	3,339	3,058	2,333	1,825	3,869	4,312	3,693	47,753
Flour and products	1,810	1,867	1,692	1,405	1,750	1,785	1,700	1,395	1,448	1,546	1,972	1,808	20,180
Total	8,436	7,762	6,524	5,899	5,228	5,124	4,757	3,728	3,273	5,415	6,284	5,501	67,933
1996/97:													
Grain	3,528	2,875	3,392	2,997	5,498	7,160	6,780	5,712	9,533	8,703	6,587	8,963	71,727
Flour and products	1,606	1,708	1,742	1,389	1,833	1,791	1,960	1,570	1,528	1,647	2,023	1,809	20,605
Total	5,134	4,583	5,135	4,386	7,331	8,950	8,740	7,282	11,061	10,350	8,610	10,772	92,333
1997/98:													
Grain	6,623	5,217	5,887	4,333	6,348	6,893	6,638	5,145	6,534	7,171	5,619	6,837	73,245
Flour and products	1,562	1,680	1,746	1,526	1,909	1,768	2,216	1,624	1,610	1,944	2,113	1,859	21,556
Total	8,184	6,897	7,633	5,859	8,257	8,661	8,854	6,769	8,144	9,115	7,732	8,696	94,801
1998/99:													
Grain	5,391	6,090	6,771	4,770	7,585	5,728	6,064	7,702	8,199	6,929	5,630	8,906	79,765
Flour and products	2,168	1,887	2,066	1,746	2,077	2,022	2,090	1,905	1,766	1,863	1,844	1,803	23,238
Total	7,559	7,976	8,837	6,516	9,662	7,750	8,154	9,607	9,966	8,792	7,474	10,709	103,004
1999/00:													
Grain	7,565	9,405	8,201	4,839	4,570	4,712	4,711	2,971					
Flour and products	1,930	1,705	1,773	1,578	1,831	1,942	2,068	2,590					
Total	9,496	11,110	9,974	6,418	6,402	6,655	6,779	5,561					

1/ Totals might not add because of rounding.

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

Appendix table 14--Wheat: Inspections for export by class and country of destination, June 1, 1998 - May 31, 1999

Country	Hard red spring	Hard red winter	Soft red winter	Hard white 1/	Soft white 1/	Durum	Total
				1,000 bushels			
Albania	0	918	0	0	0	0	918
Algeria	0	12,494	0	0	0	7,749	20,243
Angola	0	1,431	0	0	0	0	1,431
Bangladesh	0	23,200	1,976	0	5,445	0	30,621
Barbados	752	0	78	0	0	0	830
Belgium	11,348	0	0	0	0	1,803	13,151
Belize	267	299	0	0	0	0	566
Bolivia	0	1,381	0	0	0	0	1,381
Benin	0	67	0	0	0	0	67
Bosnia-Herc	0	2,514	0	0	0	0	2,514
Botswana	0	0	0	0	0	146	146
Brazil	0	965	0	0	0	0	965
Cameroon	1,136	0	0	0	0	0	1,136
Cape Verde	0	92	92	0	0	0	184
Chile	0	2,057	2,203	0	0	0	4,260
China, People's Republic	2,948	0	7,853	0	0	0	10,801
China, Taiwan	19,382	10,237	0	0	4,203	113	33,935
Colombia	795	13,986	4,023	0	6	147	18,957
Congo (Braz)	0	1,436	0	0	0	0	1,436
Costa Rica	2,673	318	1,734	0	0	519	5,244
Cyprus	440	463	0	0	0	467	1,370
Djibouti	0	185	141	0	0	0	326
Dominican Republic	8,367	671	641	0	0	868	10,547
Ecuador	1,995	1,635	573	580	0	148	4,931
Egypt	527	79,962	25,696	0	58,492	0	164,677
El Salvador	3,743	728	2,330	0	0	246	7,047
Eritrea	0	0	0	0	1,994	0	1,994
Ethiopia	0	4,666	1,099	0	0	0	5,765
Former Soviet Union	0	31,905	0	0	441	0	32,346
Gabon	154	0	0	0	0	0	154
Ghana	6,907	0	0	0	0	0	6,907
Grenada	621	0	67	0	0	0	688
Guadeloupe	0	0	9	0	0	0	9
Guatemala	423	598	1,256	0	0	0	2,277
Guyana	926	796	115	0	0	0	1,837
Haiti	588	588	0	0	0	0	1,176
Honduras	2,197	1,446	1,722	0	0	344	5,709
Indonesia	5,510	10,506	0	0	0	0	16,016
Iceland	223	0	0	0	0	0	223
Iraq	0	11,359	0	0	0	0	11,359
Israel	0	25,311	1,557	0	0	121	26,989
Italy	12,655	0	0	0	0	10,270	22,925
Jamaica	3,137	0	3,370	0	0	0	6,507
Japan	49,503	37,375	0	0	30,803	0	117,681
Jordan	0	12,346	0	0	0	0	12,346

See footnotes at end of table.

Continued--

Appendix table 14--Wheat: Inspections for export by class and country of destination, June 1, 1998 - May 31, 1999--Continued

Country	Hard red spring	Hard red winter	Soft red winter	Hard white 1/	Soft white 1/	Durum	Total
				1,000 bushels			
Kenya	202	127	0	0	0	0	329
Korea, North	0	9,882	1,152	0	647	0	11,681
Korea, Republic	12,287	16,569	0	0	21,338	0	50,194
Lebanon	0	4,718	247	0	0	0	4,965
Malaysia	1,239	0	0	0	0	0	1,239
Malta	985	0	0	0	0	0	985
Mexico	0	36,362	10,492	0	0	0	46,854
Mongolia	787	0	0	0	0	0	787
Morocco	0	1,600	369	0	0	4,661	6,630
Mozambique	3,366	2,103	0	0	0	0	5,469
Netherlands	0	0	0	0	0	347	347
Netherlands Antilles	102	104	69	0	0	0	275
New Zealand	0	0	0	0	202	0	202
Nicaragua	2,609	147	239	0	0	0	2,995
Nigeria	558	43,605	3,987	0	0	142	48,292
Norway	1,011	808	0	0	0	0	1,819
Pakistan	0	0	0	0	45,251	0	45,251
Panama	2,458	0	1,247	0	0	320	4,025
Peru	2,350	20,033	1,783	0	485	849	25,500
Philippines	38,488	0	709	0	25,068	0	64,265
Poland	0	0	0	0	0	1,169	1,169
Portugal	1,322	0	0	0	0	0	1,322
Rep. of South Africa	1,385	0	325	0	0	485	2,195
Rwanda	294	0	0	0	0	0	294
Saint Vincent	913	0	0	0	0	0	913
Singapore	707	0	0	0	629	0	1,336
Spain	9,879	0	0	0	0	1,575	11,454
Sri Lanka	0	3,677	13,444	0	0	0	17,121
Sudan	0	1,975	0	0	0	0	1,975
Suriname	310	0	0	0	0	0	310
Swaziland	368	0	0	0	0	0	368
Sweden	294	0	0	0	0	0	294
Tanzania	367	0	0	0	0	0	367
Thailand	6,109	1,855	0	0	3,018	0	10,982
Togo	834	0	0	0	0	0	834
Trinidad	1,943	1,256	1,895	0	0	0	5,094
Turkey	649	174	0	0	0	906	1,729
Uganda	0	248	0	0	0	0	248
United Arab Emirates	107	0	245	0	391	0	743
United Kingdom	5,007	0	0	0	0	0	5,007
Venezuela	12,046	3,423	4,021	0	3	3,184	22,677
Vietnam	61	40	0	0	303	0	404
Yemen	0	0	0	0	11,900	0	11,900
Zaire	0	1,778	0	0	0	0	1,778
Zimbabwe	2,659	0	0	0	0	0	2,659
Other	126	12,856	1,940	0	888	0	15,810
Total	249,039	455,275	98,699	580	211,507	36,579	1,051,679

1/ Prior to May 1, 1990, all hard and soft white wheat varieties were classified as white wheat.

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

Appendix table 15--Wheat farm programs and participation, 1976-99

Crop year	Target price	Loan rate	Programs			Deficiency/ contract payment rate 1/	Diversion payment rate 2/	AMTA plus payment rate	Partici-pation rate 3/	Program acres idled by			Area planted	Program yield
			Set-aside	Diversion	PIK, 0-50/92-85					Set-aside	Diversion	PIK, 0-50/92		
	$/bushel			Percent		$/bushel			Percent	---1,000 acres---			Mil. acres	Bu/acre
1976	2.29	2.25	---	---	---	---	---	---	---	0.0	0.0	---	80.4	33.1
1977	2.90	2.25	---	---	---	0.65	---	---	---	0.0	0.0	---	75.4	32.0
1978	3.40	2.35	20.0	4/ 20	---	0.52	---	---	63	8,400.0	1,200.0	---	66.0	31.3
1979	3.40	2.50	20.0	4/ 15	---	---	---	---	51	7,300.0	900.0	---	71.4	32.4
1980	5/ 3.63/3.08	3.00	---	---	---	---	---	---	---	0.0	0.0	---	80.8	33.7
1981	3.81	3.20	---	---	---	0.15	---	---	---	0.0	0.0	0.0	88.3	34.6
1982	4.05	3.55	15.0	---		0.50	---	---	48	5,800.0	0.0	0.0	86.2	32.5
1983	4.30	3.65	15.0	5	6/ 10-30	0.65	2.70/95	---	78	8,770.5	3,503.4	17,742.7	76.4	33.3
1984	4.38	3.30	20.0	10	10-20	1.00	2.70/85	---	60	9,326.0	5,655.4	3,625.0	79.2	33.0
1985	4.38	3.30	20.0	10		1.08	2.70	---	73	11,911.8	6,879.3	0.0	75.5	35.0
1986	4.38	2.40	22.5	7/ 2.5	8/ 50-92	1.98	1.10/2.00	---	85	15,799.3	3,939.6	1,275.3	72.0	9/ 35.0
1987	4.38	2.28	27.5	---	8/ 50-92	1.81	---	---	88	20,210.3	0.0	3,721.4	65.8	9/ 35.0
1988	4.23	2.21	27.5	---	10/ 0-92	0.69	---	---	86	19,216.6	0.0	3,246.3	65.5	34.0
1989	4.10	2.06	10.0	---	10/ 0-92	0.32	---	---	78	6,119.7	0.0	3,460.8	76.6	33.8
1990	4.00	1.95	11/ 5.0	---	10/ 0-92	1.28	---	---	83	3,216.2	0.0	5,304.4	77.0	34.1
1991	4.00	2.04	15.0	---	10/ 0-92	12/ 1.25/1.35	---	---	85	10,111.1	0.0	5,813.2	69.9	34.4
1992	4.00	2.21	5.0	---	10/ 0-92	0.81	---	---	83	3,280.5	0.0	4,041.0	72.2	34.4
1993	4.00	2.45	0.0	---	10/ 0-92	1.03	---	---	88	0.0	0.0	5,696.7	72.2	34.4
1994	4.00	2.58	0.0	---	10/ 0-85	0.61	---	---	87	0.0	0.0	5,194.7	70.3	34.4
1995	4.00	2.58	0.0	---	10/ 0-85	0.00	---	---	85	0.0	0.0	6,129.2	69.0	34.4
1996	13/ NA	2.58	13/ NA	13/ NA	13/ NA	0.87	---	---	99	13/ NA	13/ NA	13/ NA	75.1	34.7
1997	13/ NA	2.58	13/ NA	13/ NA	13/ NA	0.63	---	---	14/	13/ NA	13/ NA	13/ NA	70.4	34.7
1998	13/ NA	2.58	13/ NA	13/ NA	13/ NA	0.66	---	0.33	14/	13/ NA	13/ NA	13/ NA	65.8	34.5
1999	13/ NA	2.58	13/ NA	13/ NA	13/ NA	0.64	---	0.64	14/	13/ NA	13/ NA	13/ NA	62.8	34.5

1/ Prior to 1996/97 Deficiency paymant rate; 1996/97 contract rate. 2/ For 1978, payment rate per bushel on the normal production from planted acres. For 1983 and 1984, first figure denotes diversion payment rate and the second number is PIK payment percentage. 3/ In years with dashes all producers were eligible for program benefits. For 1978 and 1979 participation = program acreage on complying farms as a percentage of total planted acreage. For 1982 and subsequent years participation = acreage base on complying farms as a percent of total base. 4/ Voluntary set-aside requirement applies to previous year's plantings. 5/ The first entry is the target price applicable to those producers who planted within the farm NCA; the second is for those who planted in excess of the farm NCA. 6/ An alternative for the farmer is withdrawing the whole base from production, with the producer bidding the percentage of program yield up to a maximum of 95 percent. However, bids would not be accepted if they would cause the combined acreage taken out of production under the acreage reduction, cash diversion, and PIK programs to exceed 45 percent of the county's total acreage. 7/ Winter wheat producers have the option of an additional 5 to 10 percent paid land diversion, with a rate of $2.00. 8/ Under the 50-92 rule, growers who plant between 50 and 92 percent of the permitted acreage to feed grains and devote the remaining permitted acres to a conserving use are eligible to receive deficiency payments on 92 percent of the permitted acreage. 9/ Average of the program payment yields for 1981-85 crops, excluding high and low years. 10/ Under the 0-92 rule, growers who plant between 0 and 92 percent of the permitted acreage to wheat and devote the remaining permitted acres to a conserving use are eligible to receive deficiency payments on 92 percent of the permitted acreage. Beginning in 1994, the standard program is a 0-85 program. 11/ Also offered wheat modified programs whereby participants could plant up to 105 percent of their base. 12/ The first entry is the deficiency payment rate for the 1991 winter wheat option; the second entry is for the 1991 standard wheat program. 13/ The 1996 farm legislation eliminated target prices, deficiency payments and annual acreage programs including ARP and 0-85. 14/ All base was terminated after 1996 sign-up for Production Flexibility Contracts.

Source: Farm Service Agency, USDA.

Appendix table 16--World wheat production, consumption, trade, and ending stocks, 1960/61-1999/2000

Crop year 1/	Area harvested	Yield	Production	Consumption	Trade 1/	Ending stocks 2/	Stocks-to-consumption
	Million hectares	Tons per hectare		---Million metric tons---			Percent
1960/61	202.2	1.15	233.5	230.9	41.9	82.8	35.8
1961/62	203.5	1.08	220.1	233.1	46.8	69.9	29.9
1962/63	206.9	1.19	246.8	240.8	44.3	75.8	31.5
1963/64	206.3	1.12	230.4	235.9	56.0	70.3	29.8
1964/65	215.9	1.23	264.9	256.8	52.0	78.5	30.6
1965/66	215.5	1.20	259.3	277.1	61.0	60.7	21.9
1966/67	213.8	1.41	300.7	273.8	56.0	87.6	32.0
1967/68	219.2	1.33	291.9	281.9	51.0	97.7	34.6
1968/69	223.9	1.45	323.8	300.1	45.0	121.3	40.4
1969/70	217.8	1.40	304.0	321.8	50.0	103.5	32.2
1970/71	207.0	1.48	306.5	329.5	55.0	80.5	24.4
1971/72	212.7	1.62	344.1	335.4	52.0	89.2	26.6
1972/73	210.9	1.60	337.5	351.8	69.7	74.9	21.3
1973/74	217.0	1.69	366.1	358.3	63.0	82.7	23.1
1974/75	220.0	1.61	355.2	356.6	64.3	81.4	22.8
1975/76	225.3	1.56	352.6	347.3	66.7	86.7	25.0
1976/77	233.1	1.78	414.3	373.8	63.3	127.3	34.1
1977/78	227.2	1.66	377.8	396.0	72.8	109.2	27.6
1978/79	228.9	1.92	438.9	413.3	72.0	134.8	32.6
1979/80	228.5	1.83	418.3	432.0	86.0	121.2	28.0
1980/81	237.1	1.84	436.3	444.0	94.1	113.9	25.6
1981/82	239.0	1.86	445.1	445.2	101.3	113.7	25.5
1982/83	237.7	1.99	472.8	455.6	98.9	131.1	28.8
1983/84	229.3	2.11	484.4	468.8	103.8	146.6	31.3
1984/85	231.7	2.20	509.0	489.4	106.2	166.2	34.0
1985/86	229.9	2.15	494.9	490.4	84.7	170.6	34.8
1986/87	227.9	2.30	524.1	515.6	90.7	179.1	34.7
1987/88	219.7	2.26	496.0	527.2	115.6	147.8	28.0
1988/89	217.4	2.28	495.0	524.5	104.3	118.4	22.6
1989/90	225.8	2.36	533.2	532.7	103.8	118.9	22.3
1990/91	231.4	2.54	588.0	561.9	101.1	145.0	25.8
1991/92	222.5	2.44	542.9	555.5	111.2	132.5	23.8
1992/93	222.9	2.52	562.4	550.3	113.0	144.5	26.3
1993/94	222.0	2.52	558.8	561.6	101.7	141.7	25.2
1994/95	214.5	2.44	524.0	547.0	101.5	118.7	21.7
1995/96	219.2	2.46	538.5	549.3	99.5	107.9	19.6
1996/97	230.3	2.53	582.8	577.1	103.6	113.5	19.7
1997/98	227.9	2.67	609.4	584.6	103.3	138.3	23.7
1998/99 3/	224.4	2.62	588.8	591.5	100.5	135.6	22.9
1999/00 4/	216.6	2.70	585.6	594.3	104.3	126.9	21.3

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

Source: USDA.

Appendix table 17--Wheat production, trade, and ending stocks, world and United States, 1965-99

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	9,528	1,283	13.47	2,244	852	37.97	2,232	660	29.57
1966	11,047	1,315	11.90	2,146	771	35.93	3,220	513	15.93
1967	10,727	1,507	14.05	1,968	765	38.88	3,589	630	17.56
1968	11,897	1,557	13.09	1,847	544	29.45	4,457	904	20.28
1969	11,171	1,443	12.92	2,051	603	29.40	3,805	983	25.84
1970	11,263	1,352	12.00	2,075	741	35.71	2,959	823	27.81
1971	12,644	1,619	12.80	2,060	599	29.10	3,279	985	30.04
1972	12,400	1,546	12.47	2,631	1,116	42.43	2,753	597	21.68
1973	13,451	1,711	12.72	2,682	1,217	45.37	3,040	340	11.18
1974	13,052	1,782	13.65	2,514	1,018	40.51	2,989	435	14.55
1975	12,958	2,127	16.41	2,718	1,173	43.16	3,186	666	20.89
1976	15,225	2,149	14.11	2,602	950	36.50	4,678	1,113	23.80
1977	13,883	2,046	14.73	2,775	1,124	40.50	4,013	1,178	29.35
1978	16,128	1,776	11.01	3,087	1,194	38.68	4,955	924	18.65
1979	15,372	2,134	13.88	3,428	1,375	40.12	4,452	902	20.26
1980	16,029	2,381	14.85	3,561	1,514	42.51	4,183	989	23.64
1981	16,353	2,785	17.03	3,961	1,771	44.71	4,177	1,159	27.76
1982	17,372	2,765	15.92	3,960	1,509	38.10	4,816	1,515	31.46
1983	17,797	2,420	13.60	4,049	1,426	35.23	5,386	1,399	25.97
1984	18,701	2,595	13.87	4,230	1,421	33.60	6,105	1,425	23.35
1985	18,183	2,424	13.33	3,525	909	25.79	6,269	1,905	30.39
1986	19,259	2,091	10.86	3,758	999	26.57	6,581	1,821	27.67
1987	18,224	2,108	11.57	4,654	1,588	34.12	5,425	1,261	23.24
1988	18,189	1,812	9.96	4,285	1,415	33.02	4,351	702	16.13
1989	19,591	2,037	10.40	4,264	1,232	28.89	4,370	536	12.28
1990	21,606	2,730	12.63	4,309	1,069	24.82	5,329	868	16.29
1991	19,949	1,980	9.93	4,547	1,282	28.20	4,867	475	9.76
1992	20,665	2,467	11.94	4,569	1,354	29.63	5,311	531	9.99
1993	20,531	2,396	11.67	4,397	1,228	27.92	5,205	568	10.92
1994	19,254	2,321	12.05	4,176	1,188	28.45	4,360	507	11.62
1995	19,788	2,183	11.03	4,345	1,241	28.56	3,964	376	9.49
1996	21,412	2,277	10.64	4,667	1,002	21.46	4,170	444	10.64
1997	22,390	2,481	11.08	4,595	1,040	22.64	5,081	722	14.22
1998	21,634	2,547	11.77	4,441	1,042	23.47	4,981	946	18.99
1999 2/	21,517	2,547	11.84	4,606	1,042	22.63	4,661	946	20.29

1/ Includes intra-EU trade. 2/ Preliminary.

Source: USDA.

Appendix table 18--Wheat: Production and exports, major foreign exporters, and total foreign, 1965-99

Year	Australia		Canada		Argentina		EU-15		Total foreign 1/	
	Production	Exports	Production	Exports	Production	Exports	Production	Exports 2/	Production	Exports
					Million bushels					
1965	260	172	649	585	223	205	1,722	262	8,245	1,392
1966	467	312	827	515	230	82	1,510	222	9,732	1,375
1967	277	208	593	336	269	81	1,797	283	9,220	1,203
1968	544	234	650	306	211	92	1,815	355	10,340	1,303
1969	387	296	671	346	258	85	1,721	398	9,728	1,448
1970	290	336	332	435	181	36	1,675	230	9,911	1,334
1971	316	286	530	504	209	60	1,956	344	11,026	1,461
1972	242	157	533	577	254	117	1,970	471	10,854	1,515
1973	440	258	594	419	241	58	1,958	453	11,740	1,465
1974	417	315	489	395	219	66	2,183	499	11,270	1,496
1975	440	318	628	450	315	116	1,868	568	10,831	1,545
1976	434	349	867	494	404	217	1,945	444	13,076	1,652
1977	344	298	730	588	209	65	1,848	504	11,838	1,651
1978	665	430	777	480	298	150	2,248	590	14,353	1,893
1979	595	485	631	584	298	175	2,145	675	13,238	2,053
1980	399	352	709	598	286	141	2,476	826	13,649	2,047
1981	601	404	911	678	305	134	2,329	849	13,567	2,190
1982	326	295	982	785	551	363	2,593	849	14,607	2,451
1983	809	501	972	800	468	288	2,610	878	15,377	2,623
1984	686	516	779	645	485	346	3,336	1,102	16,107	2,809
1985	594	589	891	650	312	158	2,901	1,069	15,759	2,616
1986	592	572	1,152	764	328	163	2,936	1,081	17,168	2,759
1987	454	362	953	864	323	136	2,895	1,119	16,116	3,067
1988	517	415	585	457	309	148	2,995	1,220	16,377	2,870
1989	522	396	911	620	373	223	3,148	1,284	17,554	3,032
1990	554	432	1,179	798	401	205	3,274	1,311	18,877	3,240
1991	388	261	1,174	900	363	212	3,443	1,350	17,969	3,265
1992	595	362	1,098	724	360	215	3,223	1,404	18,198	3,215
1993	605	504	1,001	702	356	184	3,047	1,326	18,134	3,169
1994	327	233	850	766	415	269	3,106	1,198	16,933	2,988
1995	606	489	920	600	316	165	3,166	1,176	17,605	3,104
1996	871	706	1,095	717	584	375	3,619	1,406	19,135	3,665
1997	713	564	892	740	544	392	3,461	1,324	19,909	3,554
1998	812	588	885	540	441	301	3,787	1,320	19,086	3,399
1999 3/	900	680	987	680	533	367	3,562	1,340	19,214	3,556

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

2/ Includes intra-EU trade. 3/ Projected.

Source: USDA.

Appendix table 19--Wheat and wheat flour: World trade, production, stocks, and use, 1992/93-1999/2000 1/

Country or region	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99 11/	1999/00 12/
				Million metric tons				
Exports:								
Canada	21.8	18.7	21.8	17.1	18.2	21.3	14.5	14.5
Australia	9.5	12.8	7.8	12.1	18.2	15.4	14.5	14.5
Argentina	7.3	4.5	7.9	4.4	10.1	9.6	7.5	7.5
EU 2/	38.2	36.1	32.6	32.0	38.3	36.0	34.1	34.1
Former USSR 3/	6.8	6.5	4.2	5.9	3.6	4.6	5.1	5.1
All others	6.7	5.7	9.5	12.3	6.4	7.4	9.0	9.0
Total non-U.S.	90.3	84.3	83.8	83.8	94.7	94.3	84.7	84.7
U.S. 4/	37.1	33.1	32.5	33.7	27.0	28.1	29.0	29.0
World total	127.5	117.4	116.3	117.5	121.7	122.4	113.7	113.7
Imports:								
EU 2/	15.9	17.4	17.3	21.5	22.9	25.8	20.8	20.8
Former USSR 3/	24.5	13.4	8.3	10.7	6.9	5.9	6.8	6.8
Japan	6.0	6.0	6.3	6.1	6.3	6.2	6.2	6.2
E. Europe 5/	3.6	2.6	2.9	2.5	5.1	1.8	1.4	1.4
China	6.7	4.3	10.3	12.5	2.7	1.9	1.5	1.5
Algeria	3.6	4.8	5.8	3.8	3.6	5.2	4.0	4.0
Brazil	5.8	5.8	6.6	5.5	5.6	5.7	6.1	6.1
Egypt	6.0	5.9	5.9	5.9	6.9	7.2	7.2	7.2
South Korea	4.0	5.6	4.3	2.6	3.5	3.9	4.4	4.4
Morocco	2.8	2.4	1.3	2.3	1.5	2.5	1.8	1.8
Indonesia	2.7	2.9	3.9	3.6	4.2	3.7	2.2	2.2
Iran	3.0	3.5	3.3	2.8	7.0	3.6	3.0	3.0
Philippines	2.0	2.2	2.1	2.0	2.2	2.0	2.0	2.0
U.S.	1.9	3.2	2.4	1.7	2.6	2.5	2.6	2.6
All others	35.2	34.7	34.6	32.5	39.5	42.5	41.8	41.8
World total	123.7	114.7	115.2	116.1	120.4	120.2	111.8	111.8
Production: 6/								
Canada	29.9	27.2	23.1	25.0	29.8	24.3	24.4	24.4
Australia	16.2	16.5	8.9	16.5	23.7	19.4	21.0	21.0
Argentina	9.8	9.7	11.3	8.6	15.9	14.8	10.8	10.8
EU 2/	87.7	82.9	84.5	86.2	98.5	94.2	103.5	103.5
Former USSR 7/	89.8	83.5	60.4	60.4	64.4	81.9	58.0	58.0
E. Europe	26.5	30.1	33.8	35.0	26.1	34.4	34.1	34.1
China	101.6	106.4	99.3	102.2	110.6	123.3	110.0	110.0
India	55.7	57.2	59.8	65.5	62.1	69.3	66.0	66.0
All other foreign	78.1	80.1	80.4	79.8	89.7	80.9	89.4	89.4
U.S.	67.1	65.2	63.2	59.4	62.0	67.5	69.4	69.4
World total	562.4	559.0	524.8	538.6	582.8	610.0	586.6	586.6
Utilization: 8/								
U.S.	30.7	33.7	35.0	31.0	35.4	34.2	37.1	37.1
Former USSR 9/	102.2	89.4	76.7	73.9	71.9	73.6	69.3	69.3
China	109.0	110.2	110.2	111.7	112.4	114.9	116.0	116.0
All others	308.4	328.6	325.7	334.0	357.0	362.3	374.7	374.7
World total	550.3	561.9	547.6	550.6	576.7	584.9	597.1	597.1
Stocks, ending: 10/	144.5	141.5	118.7	106.7	112.8	137.9	127.4	127.4

1/ July-June years. 2/ European Union (formerly EC) includes former East Germany. 3/ Includes intra-trade among the individual FSU countries. 4/ Includes transshipments through Canadian ports; excludes products other than flour. 5/ Excludes former East Germany. 6/ Production data include all harvests occurring within the July-June year shown, except that small-grain crops from the early-harvesting areas of the Northern Hemisphere are moved forward; i.e., the May 1993 harvests in areas such as India, North Africa, and southern United States are actually included in 1993/94 accounting period, which begins July 1, 1993. 7/ "Clean-weight" basis; discounted for excess moisture and foreign material. 8/ 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. 9/ Use data adjusted for "clean-weight" basis. 10/ 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. 11/ Estimate as of March 2000. 12/ Projected as of March 2000.

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

Appendix table 20--Wheat farm prices for leading classes in U.S. regions, 1981/82-1999/2000

Crop year	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb. 1/	Mar.	Apr.	May	Average	Loan rate
							$/60-pound bushel							
							Central and So. Plains (winter) 2/							
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	3.31	3.36	3.42	3.62	3.72	3.74	3.90	3.93	3.93	4.04	4.03	4.02	3.75	2.21
1989/90	3.84	3.80	3.74	3.74	3.77	3.79	3.84	3.82	3.58	3.50	3.55	3.31	3.69	2.04
1990/91	3.02	2.75	2.53	2.45	2.40	2.34	2.37	2.36	2.37	2.52	2.56	2.62	2.52	1.94
1991/92	2.58	2.54	2.69	2.87	3.16	3.29	3.49	3.63	3.93	3.84	3.67	3.47	3.26	2.00
1992/93	3.43	3.13	2.90	3.07	3.21	3.31	3.37	3.46	3.38	3.34	3.24	2.94	3.23	2.20
1993/94	2.72	2.80	2.82	2.88	3.02	3.29	3.57	3.45	3.47	3.23	3.20	3.10	3.13	2.43
1994/95	3.09	3.04	3.26	3.55	3.76	3.63	3.68	3.64	3.60	3.43	3.40	3.65	3.48	2.57
1995/96	3.84	4.16	4.24	4.51	4.82	4.85	4.80	4.74	5.13	5.21	5.61	5.74	4.80	2.58
1996/97	5.26	4.83	4.54	4.15	4.09	4.10	4.07	4.08	4.00	4.04	4.23	4.01	4.28	2.57
1997/98	3.41	3.17	3.39	3.42	3.35	3.24	3.19	3.14	3.15	3.13	2.92	2.89	3.20	2.57
1998/99	2.73	2.55	2.28	2.35	2.62	2.69	2.65	2.66	2.41	2.49	2.39	2.34	2.51	2.57
1999/00	2.33	2.13	2.26	2.31	2.19	2.11	2.09	2.28	2.43					
							Corn Belt (soft red winter) 3/							
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	3.97	4.06	4.13	4.10	4.14	4.00	3.93	3.84	2.33
1989/90	3.80	3.75	3.76	3.82	3.87	3.95	4.01	3.99	3.85	3.73	3.62	3.53	3.81	2.14
1990/91	3.04	2.85	2.66	2.45	2.39	2.34	2.42	2.38	2.36	2.52	2.63	2.68	2.56	2.00
1991/92	2.52	2.37	2.69	2.86	3.12	3.35	3.51	3.50	3.74	3.57	3.40	3.40	3.17	2.09
1992/93	3.41	3.16	2.86	3.07	3.16	3.34	3.44	3.52	3.49	3.48	3.49	3.06	3.29	2.32
1993/94	2.67	2.67	2.72	2.63	2.79	3.04	3.31	3.42	3.35	3.20	3.09	2.96	2.99	2.51
1994/95	2.94	2.87	3.13	3.31	3.56	3.51	3.67	3.69	3.50	3.39	3.34	3.44	3.36	2.53
1995/96	3.62	3.81	3.99	4.08	4.25	4.51	4.66	4.66	4.71	4.44	5.18	5.60	4.36	2.54
1996/97	4.48	4.14	4.10	4.08	3.81	3.58	3.60	3.74	3.49	3.60	3.91	3.67	3.85	2.53
1997/98	3.15	3.12	3.29	3.38	3.27	3.24	3.17	3.15	3.07	3.05	2.75	2.67	3.11	2.53
1998/99	2.50	2.33	2.17	2.08	2.24	2.44	2.34	2.30	2.16	2.27	2.24	2.15	2.27	2.53
1999/00	2.11	1.97	2.12	2.14	2.11	2.10	2.11	2.22	2.31					
							Northern Plains (spring) 4/							
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	2.56	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	3.51	3.47	3.49	3.49	3.61	2.06
1990/91	3.33	2.96	2.58	2.46	2.44	2.40	2.43	2.45	2.44	2.52	2.60	2.65	2.61	1.95
1991/92	2.57	2.49	2.56	2.76	3.03	3.26	3.44	3.56	3.83	3.79	3.82	3.86	3.25	2.04
1992/93	3.87	3.63	3.12	3.19	3.18	3.28	3.24	3.33	3.34	3.32	3.34	3.19	3.34	2.21
1993/94	3.21	3.50	3.51	3.37	3.50	3.67	3.75	3.69	3.67	3.66	3.68	3.63	3.57	2.45
1994/95	3.51	3.28	3.19	3.38	3.52	3.51	3.56	3.50	3.39	3.38	3.35	3.54	3.43	2.58
1995/96	3.78	4.26	4.19	4.27	4.46	4.62	4.73	4.66	4.81	4.87	5.20	5.68	4.63	2.58
1996/97	5.50	5.28	4.63	4.41	4.21	4.07	4.03	3.95	3.80	3.84	4.03	3.99	4.31	2.58
1997/98	3.75	3.66	3.74	3.64	3.50	3.55	3.51	3.44	3.33	3.43	3.37	3.31	3.52	2.58
1998/99	3.22	3.08	2.69	2.62	3.04	3.23	3.19	3.12	3.09	3.01	2.95	2.93	3.01	2.58
1999/00	3.01	2.93	2.85	2.86	2.80	2.95	2.87	2.80	2.81					

See footnotes at end of table.

Continued--

Appendix table 20--Wheat farm prices for leading classes in U.S. regions, 1981/82-1999/2000--Continued

Crop year	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb. 1/	Mar.	Apr.	May	Average	Loan rate
							$/60-pound bushel							
							Pacific Northwest (white) 5/							
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	3.43	3.71	3.78	3.97	4.13	4.20	4.34	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	3.37	3.37	3.88	2.17
1990/91	3.26	3.04	2.82	2.69	2.48	2.47	2.51	2.56	2.62	2.78	2.86	2.94	2.75	2.06
1991/92	2.98	2.98	3.06	3.23	3.47	3.81	4.01	3.95	4.19	4.09	4.00	4.02	3.65	2.14
1992/93	3.94	3.76	3.61	3.82	3.85	3.80	3.81	3.86	3.70	3.52	3.40	3.25	3.69	2.37
1993/94	3.13	3.13	3.07	2.99	2.99	3.06	3.16	3.17	3.15	3.13	3.19	3.22	3.12	2.69
1994/95	3.33	3.22	3.31	3.83	4.15	4.11	4.03	3.92	3.81	3.72	3.68	3.93	3.75	2.71
1995/96	4.26	4.37	4.06	4.39	4.62	4.77	4.87	4.89	5.02	4.96	5.21	5.42	4.74	2.76
1996/97	5.56	5.01	4.67	4.47	4.03	3.91	3.99	3.91	3.72	3.78	4.02	4.19	4.26	2.71
1997/98	3.96	3.75	3.65	3.66	3.55	3.49	3.34	3.30	3.20	3.15	2.95	2.92	3.41	2.71
1998/99	2.59	2.48	2.20	2.21	2.68	2.75	2.70	2.79	2.81	2.77	2.82	2.82	2.64	2.71
1999/00	2.86	2.73	2.82	2.84	2.80	2.82	2.68	2.72	2.65					
							Durum 6/							
1981/82	4.52	3.91	3.52	3.41	3.51	3.55	3.47	3.60	3.67	3.52	3.54	3.52	3.72	NA
1982/83	3.50	3.36	3.10	3.09	3.19	3.25	3.16	3.40	3.22	3.47	3.82	3.96	3.66	NA
1983/84	4.01	3.96	4.11	4.07	4.04	3.97	3.83	3.84	3.67	3.88	3.91	4.07	4.01	3.68
1984/85	3.96	3.73	3.84	3.78	3.75	3.77	3.69	3.63	3.61	3.55	3.60	3.55	3.75	3.34
1985/86	3.53	3.34	3.18	3.08	3.01	3.07	3.16	3.17	3.17	3.21	3.29	3.41	3.22	3.34
1986/87	3.30	2.38	2.24	2.29	2.36	2.54	2.65	2.89	2.93	3.04	3.12	3.14	2.70	2.40
1987/88	3.15	3.02	2.87	3.19	3.29	3.33	3.20	3.21	3.27	2.93	3.22	3.40	3.18	2.28
1988/89	4.61	5.18	5.28	5.21	4.99	4.93	4.72	4.31	4.61	4.44	3.78	4.19	4.70	2.21
1989/90	3.83	3.65	3.48	3.25	3.31	3.27	3.36	3.33	3.31	3.34	3.44	3.50	3.46	2.06
1990/91	3.36	3.11	2.53	2.39	2.44	2.44	2.47	2.61	2.55	2.62	2.61	2.61	2.63	1.95
1991/92	2.55	2.44	2.24	2.36	2.62	2.68	2.75	2.98	3.34	3.24	3.33	3.40	2.82	2.04
1992/93	3.31	3.03	2.75	2.96	2.92	3.04	3.00	3.00	3.08	3.09	3.10	3.26	3.05	2.21
1993/94	3.18	3.26	3.43	3.92	4.23	4.91	4.92	4.97	5.41	5.75	5.73	5.06	4.48	2.45
1994/95	4.59	4.32	4.30	4.51	4.89	4.88	4.67	4.61	4.68	4.59	4.51	4.76	4.62	2.58
1995/96	5.20	5.29	5.33	5.87	5.80	5.78	5.75	5.63	5.61	5.75	5.59	5.76	5.65	2.58
1996/97	5.56	5.10	4.97	4.67	4.78	4.48	4.53	4.44	4.32	4.33	4.38	4.37	4.45	2.58
1997/98	4.20	4.61	5.23	5.35	5.14	5.29	5.16	5.02	4.69	4.70	4.60	4.28	4.92	2.58
1998/99	3.98	3.37	3.23	3.03	3.04	3.08	3.05	3.20	2.84	2.81	2.80	2.84	3.15	2.58
1999/00	2.93	2.89	2.74	2.30	2.17	2.62	2.96	2.89	2.98					
							U.S. average 7/							
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	3.25	3.44	3.54	3.78	3.72	3.65	3.64	3.00	2.04
1992/93	3.43	3.15	3.01	3.20	3.22	3.29	3.31	3.37	3.33	3.30	3.26	3.11	3.24	2.21
1993/94	2.84	2.85	2.96	3.10	3.25	3.47	3.63	3.58	3.60	3.70	3.56	3.43	3.26	2.45
1994/95	3.21	3.04	3.25	3.57	3.76	3.75	3.74	3.69	3.61	3.52	3.48	3.67	3.45	2.58
1995/96	3.84	4.10	4.26	4.53	4.72	4.81	4.88	4.83	4.98	5.07	5.32	5.75	4.55	2.58
1996/97	5.25	4.73	4.57	4.37	4.17	4.10	4.06	4.02	3.89	3.93	4.10	4.08	4.30	2.58
1997/98	3.52	3.23	3.56	3.66	3.58	3.54	3.44	3.32	3.27	3.33	3.18	3.06	3.38	2.58
1998/99	2.77	2.56	2.38	2.39	2.77	2.95	2.86	2.84	2.73	2.65	2.62	2.49	2.65	2.58
1999/00	2.50	2.23	2.52	2.57	2.58	2.66	2.52	2.50	2.58					

1/ March 2000 data are preliminary. 2/ Kansas, Nebraska, Texas, Oklahoma, and Arkansas. 3/ Ohio, Indiana, Illinois, and Missouri. 4/ Reflects average prices for other spring wheat for the entire United States. 5/ Washington, Oregon, and Idaho. 6/ Season average price for U.S. durum wheat. Data for June 1977 to May 1981 are not available. 7/ Season-average prices do not include an allowance for unredeemed loans and purchases beginning 1979/80.
NA = Not available.

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

Appendix table 21--Wheat cash prices for leading classes at major markets, 1960/61-1999/2000

Year	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
							$/bushel						
							KANSAS CITY, NO. 1 HARD RED WINTER (ORDINARY PROTEIN)						
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	4.66	4.51	4.33	4.02	3.90	3.77
1992/93	3.91	3.52	3.27	3.56	3.60	3.78	3.81	3.97	3.75	3.74	3.59	3.51	3.67
1993/94	3.33	3.38	3.34	3.37	3.52	3.39	4.15	4.00	3.80	3.64	3.63	3.65	3.60
1994/95	3.60	3.48	3.70	4.05	4.31	4.24	4.27	4.06	3.98	3.87	3.86	4.22	3.97
1995/96	4.72	4.98	4.76	5.00	5.28	5.34	5.51	5.40	5.67	5.63	6.60	7.02	5.49
1996/97	6.12	5.34	5.01	4.70	4.76	4.78	4.70	4.61	4.52	4.58	4.78	4.61	4.88
1997/98	4.08	3.57	3.84	3.86	3.88	3.87	3.72	3.61	3.64	3.61	3.39	3.41	3.71
1998/99	3.16	3.02	2.74	2.81	3.30	3.42	3.31	3.27	3.05	3.02	2.94	2.89	3.08
1999/00	2.93	2.68	2.85	2.92	2.80	2.89	2.81	2.90	2.94				
							KANSAS CITY, NO. 1 HARD RED WINTER (13 % PROTEIN)						
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

See footnotes at end of table.

Continued--

Appendix table 21--Wheat cash prices for leading classes at major markets, 1960/61-1999/2000--Continued

Year	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
							$/bushel						
						KANSAS CITY, NO. 1 HARD RED WINTER (13 % PROTEIN)							
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	4.36	4.53	4.34	4.10	3.95	3.77
1992/93	4.03	3.68	3.41	3.64	3.72	3.49	3.94	4.05	3.82	3.83	3.68	3.58	3.74
1993/94	3.60	3.89	3.88	4.23	4.58	4.98	5.11	4.69	4.54	4.39	4.42	4.46	4.40
1994/95	3.85	3.63	3.78	4.12	4.37	4.31	4.32	4.07	4.01	3.91	3.95	4.35	4.06
1995/96	4.90	5.24	5.01	5.26	5.59	5.60	5.71	5.62	5.81	5.67	6.71	7.16	5.69
1996/97	6.20	5.35	5.04	4.71	4.75	4.78	4.72	4.63	4.57	4.67	4.85	4.76	4.92
1997/98	4.19	3.80	4.11	4.07	4.09	4.09	4.01	3.80	3.86	3.94	3.82	3.75	3.96
1998/99	3.57	3.57	3.12	3.17	3.67	3.89	3.74	3.61	3.35	3.34	3.34	3.28	3.47
1999/00	3.22	3.39	3.42	3.52	3.40	3.54	3.44	3.46	3.37				
						CHICAGO, NO. 2 SOFT RED WINTER 1/							
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	3.34	3.36	3.35	3.18	2.98	3.33	3.23	3.32	3.40	3.36	3.51	3.55	3.33
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	3.56
1984/85	3.51	3.44	3.49	3.47	3.51	3.62	3.49	3.51	3.55	3.55	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	2.41	2.52	2.50	2.53	2.76	2.80	2.83	2.73
1991/92	2.86	2.79	2.97	3.24	3.50	3.57	3.79	4.12	4.15	3.71	3.53	3.68	3.49
1992/93	3.60	3.39	3.09	3.24	3.39	3.60	3.59	3.77	3.67	3.58	3.72	3.19	3.49
1993/94	2.82	3.03	3.12	2.99	3.09	3.29	3.53	3.67	3.48	3.28	3.19	3.15	3.22
1994/95	3.21	3.14	3.37	3.75	3.83	3.63	3.76	3.68	3.55	3.39	3.40	3.56	3.52
1995/96	3.91	4.41	4.28	4.53	4.72	4.85	5.04	4.92	5.10	4.99	5.65	5.57	4.83
1996/97	4.94	4.64	4.49	4.33	3.96	3.57	3.54	3.47	3.29	3.49	3.77	3.57	3.92
1997/98	3.38	3.30	3.52	3.49	3.51	3.44	3.31	3.27	3.26	3.25	2.91	2.87	3.29
1998/99	2.72	2.51	2.39	2.32	2.56	2.58	2.49	2.46	2.28	2.63	2.31	2.24	2.46
1999/00	2.20	1.94	2.09	2.12	1.98	1.96	2.12	2.34	2.38				

See footnotes at end of table.

Continued--

Appendix table 21--Wheat cash prices for leading classes at major markets, 1960/61-1999/2000--Continued

Year	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
							$/bushel						
							ST. LOUIS, NO. 2 SOFT RED WINTER						
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	3.83	3.94	3.81	3.53	3.57	3.32
1992/93	3.55	3.39	3.09	3.19	3.34	3.71	3.74	3.99	3.85	3.98	3.73	2.93	3.54
1993/94	2.83	2.94	2.98	2.75	2.93	3.33	3.62	3.83	3.61	3.36	3.29	3.24	3.23
1994/95	3.22	3.11	3.31	3.69	3.89	3.84	4.00	3.83	3.74	3.59	3.55	3.62	3.62
1995/96	3.90	4.35	4.13	4.56	4.92	5.07	5.14	4.84	4.83	4.79	5.65	5.61	4.82
1996/97	4.84	4.72	4.62	4.38	4.02	3.85	3.90	3.78	3.55	3.71	3.99	3.80	4.10
1997/98	3.46	3.34	3.64	3.62	3.58	3.57	3.53	3.87	3.32	3.24	3.05	2.89	3.43
1998/99	2.66	2.43	2.26	2.12	2.23	2.41	2.54	2.51	2.33	2.44	2.44	2.45	2.40
1999/00	2.31	NA	2.22	2.48	2.31	2.50	2.26	2.38	2.51				
							TOLEDO, NO. 2 SOFT RED WINTER						
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	2.02
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

See footnotes at end of table.

Continued--

Appendix table 21--Wheat cash prices for leading classes at major markets, 1960/61-1999/2000--Continued

Year	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
							$/bushel						
							TOLEDO, NO. 2 SOFT RED WINTER						
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	4.36
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	2.37	2.52	2.72	2.75	2.77	2.68
1991/92	2.82	2.78	3.01	3.25	3.51	3.58	3.93	4.28	4.26	3.75	3.56	3.55	3.52
1992/93	3.54	3.30	3.03	3.16	3.24	3.42	3.44	3.63	3.56	3.45	3.38	3.02	3.35
1993/94	2.77	2.95	3.05	3.02	3.16	3.36	3.57	3.70	3.57	3.24	3.15	3.13	3.22
1994/95	3.15	3.05	3.20	3.52	3.66	3.46	3.66	3.62	3.59	3.44	3.41	3.52	3.44
1995/96	3.87	4.35	4.18	4.40	4.78	4.80	4.99	4.90	5.04	4.87	5.67	5.67	4.79
1996/97	4.85	4.55	4.48	4.25	3.56	3.34	3.93	3.87	3.58	3.75	3.99	3.79	4.00
1997/98	3.38	3.29	3.50	3.44	3.41	3.30	3.22	3.16	3.20	3.17	2.86	2.77	3.23
1998/99	2.57	2.41	2.23	2.24	NQ	NQ	2.42	2.40	2.26	2.37	2.28	2.22	2.34
1999/00	2.18	2.02	2.24	2.23	2.12	2.06	2.00	2.23	2.26				
							TOLEDO, NO. 2 SOFT WHITE						
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	2.40	2.61	2.67	2.68	2.59
1991/92	2.69	2.62	2.86	3.09	3.32	3.41	3.73	4.07	4.15	4.09	3.44	3.43	3.41
1992/93	3.37	3.11	2.86	3.02	3.12	3.30	3.26	3.43	3.34	3.09	3.13	NQ	3.18
1993/94	2.61	2.83	2.91	2.94	3.11	3.30	3.51	3.66	3.56	3.24	3.16	3.09	3.16
1994/95	3.11	3.02	3.13	3.42	3.61	3.43	3.67	3.59	3.45	3.24	3.33	3.44	3.37
1995/96	3.77	4.22	3.96	4.17	NQ	4.62	4.79	4.68	4.80	4.64	NQ	NQ	4.41
1996/97	NQ	4.44	4.22	3.98	3.40	3.20	3.69	3.58	3.32	3.55	3.81	3.60	3.71
1997/98	3.19	3.17	3.40	3.37	3.31	3.20	3.12	3.04	3.14	3.06	2.75	2.67	3.12
1998/99	2.49	2.32	2.13	2.12	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	2.27
1999/00	NQ	NQ	NQ	2.00	1.78	1.76	1.78	2.02	2.04				

See footnotes at end of table.

Continued--

Appendix table 21--Wheat cash prices for leading classes at major markets, 1960/61-1999/2000--Continued

Year	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
							$/bushel						
							PORTLAND, NO. 1 SOFT WHITE						
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	2.12
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	4.45
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	4.57	4.76	4.52	4.39	4.37	4.11
1992/93	4.46	4.19	3.99	4.33	4.34	4.21	4.20	4.34	4.05	3.85	3.77	3.53	4.11
1993/94	3.46	3.57	3.44	3.42	3.42	3.47	3.61	3.63	3.52	3.46	3.58	3.74	3.53
1994/95	3.64	3.52	3.71	4.32	4.61	4.54	4.49	4.33	4.23	3.98	4.08	4.45	4.16
1995/96	4.65	4.94	4.65	4.96	5.17	5.35	5.50	5.44	5.59	5.38	5.66	6.00	5.27
1996/97	5.55	4.96	5.02	4.79	4.28	4.10	4.06	4.10	4.13	4.25	4.54	4.70	4.54
1997/98	4.20	4.20	4.10	4.12	3.98	3.88	3.79	3.67	3.58	3.56	3.34	3.28	3.81
1998/99	2.93	2.72	2.66	2.69	3.15	3.15	3.12	3.15	3.10	3.22	3.23	3.17	3.02
1999/00	3.17	3.06	3.14	3.25	3.24	3.09	2.83	2.91	2.88				
							MINNEAPOLIS, DARK NO. 1 SPRING (13% PROTEIN)						
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

See footnotes at end of table.

Continued--

Appendix table 21--Wheat cash prices for leading classes at major markets, 1960/61-1999/2000--Continued

Year	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
							$/bushel						
							MINNEAPOLIS, DARK NO. 1 SPRING (13% PROTEIN)						
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	2.97	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	3.11	3.19	3.68	3.76	4.12	4.36	4.56	4.35	4.28	4.44	3.82
1992/93	4.42	4.03	3.49	3.51	3.55	3.68	3.72	3.90	3.75	3.75	3.67	3.47	3.75
1993/94	3.49	4.08	3.84	4.23	4.54	4.68	4.82	4.77	4.56	4.23	4.50	4.44	4.35
1994/95	3.92	3.82	3.88	4.14	4.29	4.28	4.28	4.13	4.06	4.04	4.10	4.40	4.11
1995/96	4.70	5.40	4.98	5.22	5.45	5.56	5.70	5.54	5.75	5.72	6.34	7.31	5.64
1996/97	6.63	5.91	5.13	4.60	4.57	4.62	4.46	4.57	4.40	4.53	4.71	4.52	4.89
1997/98	4.31	4.08	4.34	4.33	4.32	4.30	4.18	4.03	4.05	4.19	4.19	4.06	4.20
1998/99	3.91	3.83	3.46	3.39	3.87	3.98	3.86	3.72	3.67	3.75	3.55	3.53	3.71
1999/00	3.65	3.46	3.29	3.32	3.23	3.42	3.38	3.19	3.37				
							MINNEAPOLIS, DARK NO. 1 SPRING (15% PROTEIN)						
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	4.22	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	3.23	3.30	3.76	3.84	4.18	4.40	4.59	4.45	4.36	4.52	3.91
1992/93	4.71	4.18	4.33	5.18	5.12	5.05	4.64	4.92	4.69	4.81	4.58	4.59	4.73
1993/94	4.97	5.75	6.06	5.87	6.60	7.19	6.61	6.30	6.28	5.96	5.91	5.87	6.11
1994/95	4.81	4.72	4.24	4.96	5.00	5.15	5.04	4.39	4.36	4.48	4.60	4.98	4.73
1995/96	5.26	5.91	5.30	5.42	5.82	5.87	6.00	5.82	5.98	6.00	6.63	7.27	5.94
1996/97	6.85	6.28	5.76	5.40	5.66	5.21	4.95	4.95	4.70	4.93	5.14	5.04	5.41
1997/98	4.82	4.82	4.67	4.22	4.50	4.61	4.28	4.41	4.35	4.39	4.37	4.41	4.49
1998/99	4.23	4.18	3.84	3.92	4.32	4.42	4.18	4.24	4.07	4.05	3.99	3.90	4.11
1999/00	4.03	4.02	4.10	4.07	4.17	4.22	3.89	3.99	3.94				

See footnotes at end of table.

Continued--

Appendix table 21--Wheat cash prices for leading classes at major markets, 1960/61-1999/2000--Continued

Year	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
							$/bushel						
							MINNEAPOLIS: NO. 1 DARK NORTHERN SPRING (14% PROTEIN) 2/						
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	4.36	4.56	4.36	4.28	4.44	3.82
1992/93	4.42	4.04	3.65	3.79	3.85	3.94	3.88	4.05	3.87	3.87	3.80	3.71	3.91
1993/94	3.96	4.80	4.88	4.90	5.17	5.50	5.45	5.32	5.29	4.94	4.99	5.05	5.02
1994/95	4.20	4.14	4.00	4.27	4.40	4.41	4.37	4.21	4.09	4.11	4.30	4.61	4.26
1995/96	4.89	5.52	5.06	5.27	5.52	5.63	5.80	5.62	5.82	5.81	6.53	7.14	5.72
1996/97	6.73	6.04	5.29	4.63	4.69	4.64	4.51	4.62	4.45	4.62	4.78	4.58	4.97
1997/98	4.44	4.36	4.49	4.36	4.35	4.42	4.27	4.12	4.15	4.26	4.29	4.24	4.31
1998/99	4.01	3.89	3.58	3.53	4.03	4.15	3.97	3.92	3.78	3.79	3.65	3.61	3.83
1999/00	3.73	3.68	3.58	3.55	3.70	3.78	3.64	3.37	3.59				
							MINNEAPOLIS, NO. 1 HARD AMBER DURUM 2/						
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	3.66	3.93	4.21	3.99	4.14	4.08	3.61
1992/93	3.96	3.71	3.52	3.86	3.81	3.92	3.91	3.93	4.06	3.99	4.01	3.90	3.88
1993/94	3.84	4.05	4.41	5.06	5.73	6.38	6.57	6.56	6.78	7.06	6.45	6.17	5.76
1994/95	5.76	5.19	5.30	6.16	6.64	6.61	5.99	6.23	5.91	5.87	5.64	6.47	5.98
1995/96	7.16	7.49	6.35	7.26	6.76	7.23	7.11	6.95	6.86	6.97	7.01	7.22	7.03
1996/97	6.57	6.18	5.77	5.47	5.41	5.56	5.57	5.42	5.25	5.18	5.35	5.38	5.59
1997/98	5.38	5.93	6.39	6.69	6.52	6.38	6.55	5.60	5.64	5.75	5.63	5.15	5.97
1998/99	5.00	4.59	4.20	3.78	4.04	4.15	4.05	3.91	3.67	3.65	3.61	NQ	4.06
1999/00	NQ	3.92	3.73	4.14	4.46	4.80	NQ	NQ	4.40				

NA = Not available. NQ = No quote.

1/ Chicago (Mills) price June 1955 to May 1972, starting June 1972 to the present the price is Chicago terminal. 2/ Data from 1955/56 to 1971/72 are not available.

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

Appendix table 22--Domestic and foreign wheat prices, 1980-2000

Year and month	United States					Foreign		
	Farm 1/	Kansas City 2/	Gulf ports 3/	Gulf ports 4/	Rotterdam 5/	Argentina 6/	Canada 7/	Australia 8/
	$/metric ton							
Calendar year:								
1980	143	159	176	NA	213	203	192	176
1981	142	160	176	NA	210	190	194	175
1982	129	147	161	NA	187	166	165	160
1983	132	145	158	NA	185	138	169	161
1984	127	140	153	NA	180	135	166	153
1985	117	125	137	NA	169	106	173	141
1986	100	107	117	NA	148	88	161	120
1987	94	104	114	NA	141	90	134	115
1988	122	134	146	NA	176	127	177	150
1989	142	160	171	163	190	155	202	176
1990	110	126	137	120	164	129	158	144
1991	101	117	129	127	154	99	141	137
1992	125	144	152	146	173	125	177	165
1993	118	132	141	138	200	131	192	154
1994	129	142	150	142	210	131	199	162
1995	150	170	177	169	221	178	204	198
1996	175	201	207	188	235	218	230	229
1997	136	150	160	146	166	157	181	192
1998	107	116	126	113	132	120	163	154
1999	95	107	112	98	NA	114	152	145
1988:								
January	101	118	130	NA	158	95	148	127
February	103	120	132	NA	155	97	151	135
March	101	114	126	NA	149	106	143	131
April	103	115	128	NA	156	107	145	133
May	109	118	130	NA	159	110	152	131
June	124	140	151	NA	191	123	166	158
July	129	139	151	142	200	138	209	157
August	133	139	151	148	193	143	206	154
September	137	148	160	156	190	151	202	160
October	141	152	162	164	190	148	202	169
November	143	154	165	164	185	150	202	171
December	145	156	167	170	189	153	206	173
1989:								
January	148	162	175	174	205	161	213	179
February	148	161	173	167	207	160	212	178
March	150	166	179	169	192	156	210	183
April	148	164	176	163	192	156	207	179
May	147	167	177	167	193	160	209	182
June	141	161	170	153	187	158	204	178
July	139	157	168	153	185	156	204	175
August	137	155	165	154	181	154	196	170
September	137	153	164	157	180	148	188	171
October	138	156	165	161	183	149	190	172
November	137	159	168	166	183	151	191	174
December	139	161	170	167	191	148	194	176
1990:								
January	136	158	169	164	193	145	193	174
February	131	152	162	157	186	151	189	165
March	128	148	157	150	178	151	191	161
April	128	152	162	141	182	145	179	165
May	125	144	151	133	179	148	171	159
June	113	132	136	131	171	148	165	149
July	103	114	125	120	152	141	148	134
August	95	106	118	116	143	140	139	127
September	90	104	115	109	142	140	130	125
October	89	103	116	105	144	83	128	125
November	88	102	114	109	144	82	126	124
December	88	102	114	109	150	75	132	124

See footnotes at end of table.

Continued--

Appendix table 22--Domestic and foreign wheat prices, 1980-2000--Continued

Year and month	United States					Foreign		
	Farm 1/	Kansas City 2/	Gulf ports 3/	Gulf ports 4/	Rotterdam 5/	Argentina 6/	Canada 7/	Australia 8/
	$/metric ton							
1991:								
January	89	100	112	107	143	75	132	120
February	89	102	115	107	143	74	134	121
March	93	108	121	115	136	84	136	127
April	96	109	122	118	143	95	137	130
May	97	112	123	118	143	108	136	133
June	94	110	121	119	147	107	135	132
July	92	107	118	116	146	107	130	127
August	97	114	126	128	149	106	137	133
September	103	122	133	137	158	107	146	141
October	113	134	147	146	171	106	156	153
November	119	138	150	150	177	107	160	158
December	126	149	162	160	186	108	157	168
1992:								
January	130	171	171	162	193	115	183	176
February	139	166	177	172	197	124	190	186
March	137	159	170	163	194	128	184	178
April	134	148	160	150	195	118	179	171
May	134	143	150	140	197	117	184	165
June	126	144	148	141	183	129	186	164
July	116	129	137	132	181	129	167	155
August	111	120	129	121	173	130	150	145
September	118	131	139	132	NQ	129	165	157
October	118	132	141	138	181	131	174	160
November	121	139	148	150	188	127	179	164
December	122	140	148	149	188	119	181	162
1993:								
January	124	146	156	159	192	125	187	168
February	122	138	149	156	187	128	183	162
March	121	137	149	158	183	124	182	157
April	120	132	142	158	183	127	173	157
May	114	129	136	139	184	132	166	146
June	104	122	122	114	181	137	170	140
July	105	124	129	118	196	137	180	145
August	109	123	131	124	208	136	194	147
September	114	124	132	120	202	139	201	151
October	119	129	137	128	217	135	210	153
November	128	125	147	139	224	129	226	156
December	133	152	159	142	242	124	236	166
1994:								
January	132	147	155	155	252	119	224	165
February	132	140	147	149	244	114	218	157
March	136	134	141	136	226	115	210	148
April	131	133	141	134	223	122	206	148
May	126	134	140	134	218	129	216	152
June	118	132	139	127	186	131	201	153
July	112	128	138	122	170	130	183	149
August	119	136	148	131	184	128	175	160
September	131	149	159	148	196	140	185	172
October	138	158	167	160	205	153	191	180
November	138	156	162	154	204	154	188	178
December	137	157	165	158	208	136	188	181
1995:								
January	136	149	156	156	201	132	183	177
February	133	146	154	151	194	131	184	176
March	129	142	150	145	193	124	178	174
April	128	142	149	143	196	121	182	173
May	135	155	159	148	205	140	193	182
June	141	173	170	153	222	171	171	196
July	151	183	190	175	237	212	229	210
August	157	175	185	169	232	225	214	199
September	166	184	194	183	247	225	220	212
October	173	194	204	195	241	222	228	222
November	177	196	203	198	242	220	232	221
December	179	202	209	206	243	213	235	229

See footnotes at end of table.

Continued--

Appendix table 22--Domestic and foreign wheat prices, 1980-2000--Continued

Year and month	United States					Foreign		
	Farm 1/	Kansas City 2/	Gulf ports 3/	Gulf ports 4/	Rotterdam 5/	Argentina 6/	Canada 7/	Australia 8/
	$/metric ton							
1996:								
January	177	198	207	200	236	220	228	224
February	183	208	219	205	249	244	235	233
March	186	207	216	199	249	246	234	232
April	195	243	250	246	293	267	270	262
May	211	258	262	220	299	285	291	277
June	193	225	227	181	272	263	274	250
July	174	196	203	181	246	242	253	229
August	168	184	192	176	224	207	225	217
September	161	173	179	172	204	177	188	209
October	153	175	178	163	188	169	191	209
November	151	176	176	155	184	165	187	203
December	149	173	176	156	177	136	184	203
1997:								
January	148	166	176	157	175	140	188	201
February	143	164	172	146	167	148	183	202
March	144	166	177	155	174	167	189	203
April	151	174	183	164	185	182	195	213
May	150	166	173	150	173	184	187	210
June	129	147	148	133	161	167	180	184
July	119	129	140	129	155	164	173	165
August	131	139	152	144	164	162	180	176
September	134	139	150	145	165	154	181	177
October	132	139	153	146	163	149	177	NA
November	130	138	150	140	159	138	172	NA
December	126	134	145	138	156	133	172	NA
1998:								
January	122	129	139	132	149	125	164	164
February	120	130	140	129	149	124	169	168
March	122	128	139	128	149	122	173	170
April	117	120	130	119	141	123	168	159
May	112	118	129	114	137	126	167	155
June	102	112	121	108	132	119	162	151
July	94	105	118	100	125	116	159	142
August	88	97	109	95	117	108	151	135
September	89	99	108	100	116	110	149	139
October	103	116	126	112	124	131	159	154
November	109	121	131	114	124	126	165	157
December	105	117	126	106	117	115	168	157
1999:								
January	104	120	125	106	NA	114	167	156
February	100	112	116	98	NA	104	159	150
March	97	111	118	102	NA	107	155	151
April	96	108	114	101	NA	120	150	146
May	91	106	112	100	NA	122	146	140
June	92	108	111	97	NA	128	151	142
July	82	98	101	91	NA	126	147	136
August	93	105	110	96	NA	127	148	140
September	94	107	113	96	NA	130	150	NA
October	95	103	107	101	NA	112	148	NA
November	98	106	109	100	NA	95	150	NA
December	93	103	103	92	NA	88	147	NA
2000:								
January	92	107	106	99	NA	100	NA	NA
February	95	108	110	102	NA	102	NA	NA

NA = Not available. NQ = No quote

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/ No. 2, soft red winter, f.o.b. vessel. 5/ U.S. No. 2, dark northern spring, 14 percent protein, c.i.f. 6/ Calendar year 1980-1986 f.o.b.Buenos Aires; Argentine 2, f.o.b. Ports data starting January 1987. 7/ No. 1, Canadian western red spring, 13.5 percent in-store, St. Lawrence. 8/ Australian standard wheat, f.o.b. 9/ "Oil World Monthly" stopped reporting prices of U.S. wheat at Rotterdam. The publication now reports U.S. SRW, f.o.b. vessel.

Source: Compiled by Economic Research Service, USDA from various sources.

Appendix table 23--Wheat flour: Supply and disappearance, United States, 1964-99

Calendar year	Wheat ground	Millfeed production	Flour production 1/	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
1964	591,654	2,890	261,905	142	262,047	42,328	26	219,693	191.8	114.5
1965	564,724	4,645	250,591	145	250,736	30,597	194	219,945	194.2	113.3
1966	568,673	4,619	253,176	179	253,355	33,091	178	220,086	196.5	112.0
1967	549,801	4,423	245,390	222	245,612	21,056	16	224,540	198.6	113.1
1968	569,649	4,511	254,310	233	254,543	28,068	133	226,342	200.6	112.8
1969	567,956	4,458	254,194	274	254,468	26,333	158	227,977	202.6	112.5
1970	563,714	4,409	253,094	325	253,419	26,054	14	227,351	205.1	110.9
1971	555,092	4,279	249,810	341	250,151	20,685	15	229,451	207.7	110.5
1972	557,801	4,303	250,441	477	250,918	20,335	19	230,564	209.9	109.8
1973	567,287	4,395	254,661	550	255,211	16,107	26	239,078	211.9	112.8
1974	562,962	4,483	251,097	665	251,762	14,453	33	237,276	213.9	111.0
1975	582,675	4,701	258,985	621	259,606	12,364	22	247,220	216.0	114.5
1976	618,284	4,920	275,077	604	275,681	16,064	44	259,573	218.0	119.1
1977	618,125	4,787	275,784	604	276,388	22,053	37	254,298	220.2	115.5
1978	621,321	4,860	277,950	773	278,723	22,170	43	256,510	222.6	115.2
1979	636,375	4,945	284,051	823	284,874	22,927	86	261,861	225.1	116.4
1980	628,559	4,866	282,655	904	283,559	17,378	54	266,127	227.7	116.9
1981	634,381	5,045	283,996	1,166	285,162	18,655	84	266,423	230.0	115.9
1982	653,206	5,228	290,907	1,496	292,403	20,926	154	271,323	232.2	116.9
1983	698,951	5,655	311,587	1,590	313,177	37,315	150	275,712	324.3	85.0
1984	675,271	5,426	299,832	2,028	301,860	20,179	162	281,519	236.3	119.1
1985	700,151	5,556	313,815	2,087	315,902	18,614	143	297,146	238.5	124.6
1986	737,537	5,799	326,316	2,252	328,568	26,160	124	302,283	240.7	125.6
1987	767,507	6,260	341,565	2,663	344,228	28,880	144	315,204	242.8	129.8
1988	769,699	6,163	344,154	2,727	346,881	24,097	185	322,599	245.0	131.7
1989	761,021	6,072	342,762	3,176	345,938	24,893	201	320,844	247.3	129.7
1990	788,186	6,109	354,348	3,460	357,808	17,582	305	339,921	249.9	136.0
1991	808,966	6,436	362,311	3,891	366,202	19,611	557	346,034	252.6	137.0
1992	833,339	6,707	370,829	4,832	375,661	20,194	787	354,680	255.4	138.9
1993	871,408	6,963	387,419	5,975	393,394	22,731	687	369,976	258.1	143.4
1994	884,707	7,186	392,519	8,687	401,206	23,801	811	376,594	260.6	144.5
1995	869,296	7,144	388,689	8,918	397,607	23,615	857	373,135	263.0	141.9
1996	878,070	7,042	397,776	8,574	406,350	10,651	881	394,818	265.5	148.7
1997	885,843	6,886	404,143	8,684	412,827	11,038	1,167	400,622	268.0	149.5
1998	895,369	6,955	398,914	9,766	408,680	12,574	1,353	394,753	270.6	145.9
1999 3/	909,922	7,071	407,049	9,305	416,354	21,367	1,610	393,377	273.1	144.0

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), reporting methods changed in 1990. 3/ Preliminary.

Source: Bureau of the Census and Economic Research Service (estimates), USDA.

Appendix table 24--Wheat and flour price relationships at milling centers, annual and by periods, 1984/85-1999/2000

Year and period	At Kansas City					At Minneapolis				
	Cost of wheat to produce 100 lb. of flour 1/	Wholesale price of				Cost of wheat to produce 100 lb. of flour 1/	Wholesale price of			
		Bakery flour per 100 lb.2/	Byproducts obtained 100 lb. flour 3/	Total products			Bakery flour per 100 lb. 2/	Byproducts obtained 100 lb. flour 3/	Total products	
				Actual	Over cost of wheat				Actual	Over cost of wheat
	Dollars									
1984/85:										
June-Sep.	9.21	9.78	1.47	11.26	2.05	9.64	10.31	1.21	11.52	1.89
Oct.-Dec.	9.05	9.85	1.47	11.32	2.27	9.16	10.56	1.11	11.67	2.50
Jan.-Mar.	8.77	9.90	1.16	11.06	2.29	9.09	11.27	0.83	12.11	3.01
Apr.-May	8.62	9.58	1.16	10.74	2.12	9.34	11.22	0.88	12.11	2.77
Mkt. year	8.96	9.78	1.32	11.09	2.13	9.27	10.84	1.01	11.85	2.58
1985/86:										
June-Sep.	7.99	8.94	1.10	10.04	2.05	8.60	10.96	0.77	11.73	3.13
Oct.-Dec.	8.37	9.07	1.38	10.45	2.08	9.24	11.65	1.09	12.70	3.50
Jan.-Mar.	8.37	9.38	1.10	10.48	2.11	9.02	11.95	0.83	12.78	3.76
Apr.-May	8.38	9.73	1.21	10.94	2.56	9.35	11.05	0.95	12.00	2.65
Mkt. year	8.28	9.28	1.19	10.47	2.20	9.05	11.39	0.90	12.29	3.25
1986/87:										
June-Aug.	6.19	7.90	0.79	8.69	2.50	6.86	9.70	0.62	10.32	3.46
Sep.-Nov.	6.27	8.18	0.85	9.03	2.76	6.78	9.52	0.64	10.16	3.38
Dec.-Feb.	6.70	7.97	0.99	8.96	2.26	7.03	8.55	0.66	9.21	2.18
Mar.-May	7.00	8.18	0.74	8.92	1.92	7.30	9.10	0.58	9.68	2.38
Mkt. year	6.54	8.06	0.84	8.90	2.36	7.00	9.22	0.63	9.85	2.85
1987/88:										
June-Aug.	6.62	7.85	0.72	8.57	1.95	6.80	8.63	0.51	9.14	2.34
Sep.-Nov.	7.04	7.85	1.19	9.04	2.00	7.07	8.98	0.90	9.88	2.81
Dec.-Feb.	7.51	7.97	1.53	9.50	1.99	7.36	9.77	1.18	10.95	3.59
Mar.-May	7.43	8.18	1.12	9.30	1.87	7.50	10.17	0.98	11.15	3.65
Mkt. year	7.15	7.96	1.14	9.10	1.95	7.18	9.39	0.89	10.28	3.10
1988/89:										
Jun.-Aug.	8.83	9.57	1.57	11.13	2.30	9.72	11.00	1.48	12.48	2.76
Sep.-Nov.	9.34	9.88	1.76	11.64	2.30	9.78	9.80	1.67	11.47	1.69
Dec.-Feb.	9.93	10.37	1.81	12.18	2.24	9.96	10.05	1.70	11.75	1.79
Mar.-May	10.37	11.03	1.59	12.62	2.25	10.32	10.72	1.62	12.34	2.01
Mkt. year	9.62	10.21	1.68	11.89	2.27	9.94	10.39	1.62	12.01	2.07
1989/90:										
June-Aug.	9.86	11.07	1.14	12.21	2.35	9.84	10.63	1.15	11.78	1.94
Sep.-Nov.	9.67	10.33	1.64	11.97	2.30	9.36	9.70	1.51	11.21	1.86
Dec.-Feb.	9.68	10.35	1.58	11.93	2.25	9.50	9.92	1.47	11.38	1.88
Mar.-May	9.17	10.10	1.32	11.42	2.25	9.03	9.60	1.26	10.86	1.83
Mkt. year	9.58	10.41	1.45	11.86	2.28	9.48	10.00	1.36	11.36	1.89
1990/91:										
June-Aug.	7.46	8.62	1.29	9.91	2.45	8.03	8.85	1.21	10.06	2.03
Sep.-Nov.	6.53	7.25	1.42	8.67	2.14	6.45	7.18	1.35	8.54	2.08
Dec.-Feb.	6.54	7.32	1.34	8.66	2.12	6.46	7.17	1.26	8.42	1.96
Mar.-May	6.93	7.95	1.10	9.05	2.11	6.97	7.72	1.03	8.75	1.78
Mkt. year	6.86	7.78	1.29	9.07	2.21	6.98	7.73	1.21	8.94	1.96
1991/92:										
June-Aug.	6.86	8.02	1.05	9.07	2.21	6.90	7.72	1.00	8.71	1.81
Sep.-Nov.	8.21	9.07	1.34	10.41	2.20	8.11	8.75	1.23	9.98	1.87
Dec.-Feb.	9.85	10.65	1.45	12.10	2.25	9.90	10.48	1.24	11.72	1.82
Mar.-May	9.42	10.37	1.21	11.57	2.16	9.94	10.62	1.16	11.78	1.84
Mkt. year	8.58	9.53	1.26	10.79	2.21	8.71	9.39	1.16	10.55	1.84

See footnotes at end of table.

Continued--

Appendix table 24--Wheat and flour price relationships at milling centers, annual and by periods, 1984/85-1999/2000--Continued

Year and period	At Kansas City					At Minneapolis				
	Cost of wheat to produce 100 lb. of flour 1/	Wholesale price of				Cost of wheat to produce 100 lb. of flour 1/	Wholesale price of			
		Bakery flour per 100 lb.2/	Byproducts obtained 100 lb. flour 3/	Total products			Bakery flour per 100 lb. 2/	Byproducts obtained 100 lb. flour 3/	Total products	
				Actual	Over cost of wheat				Actual	Over cost of wheat
	Dollars									
1992/93:										
June-Aug.	8.45	9.48	1.10	10.58	2.13	9.20	10.00	1.06	11.06	1.85
Sep.-Nov.	8.25	9.47	1.44	10.90	2.66	8.80	9.98	1.41	11.39	2.59
Dec.-Feb.	8.98	9.87	1.46	11.32	2.35	8.97	10.18	1.23	11.41	2.44
Mar.-May	8.43	9.78	1.13	10.91	2.48	8.65	10.32	0.91	11.23	2.58
Mkt. year	8.53	9.65	1.28	10.93	2.40	8.91	10.12	1.15	11.27	2.37
1993/94:										
June-Aug.	8.64	9.80	1.09	10.89	2.25	10.37	11.73	1.01	12.75	2.38
Sep.-Nov.	10.48	10.47	1.56	12.02	1.54	11.83	12.53	1.41	13.94	2.11
Dec.-Feb.	10.90	10.83	1.79	12.62	1.72	12.21	13.17	1.46	14.63	2.42
Mar.-May	10.09	10.25	1.39	11.64	1.55	11.38	12.55	1.23	13.78	2.39
Mkt. year	10.03	10.34	1.46	11.79	1.77	11.45	12.50	1.28	13.77	2.33
1994/95:										
June-Aug.	8.56	9.72	1.27	10.99	2.43	9.38	10.82	1.14	11.95	2.57
Sep.-Nov.	9.73	10.80	1.29	12.09	2.36	9.94	11.13	1.11	12.24	2.30
Dec.-Feb.	9.42	10.63	1.19	11.82	2.40	9.63	10.85	0.94	11.79	2.16
Mar.-May	9.28	10.83	1.10	11.93	2.65	9.90	11.23	0.99	12.23	2.33
Mkt. year	9.25	10.50	1.21	11.71	2.46	9.71	11.01	1.04	12.05	2.34
1995/96:										
June-Aug.	11.51	12.45	1.21	13.66	2.15	11.76	12.70	1.06	13.76	2.00
Sep.-Nov.	12.50	12.88	1.79	14.68	2.18	12.48	13.07	1.57	14.63	2.15
Dec.-Feb.	13.03	13.07	2.31	15.38	2.35	13.10	13.17	1.97	15.14	2.04
Mar.-May	14.85	15.00	2.40	17.40	2.55	14.80	13.17	2.13	15.29	0.49
Mkt. year	12.97	13.35	1.93	15.28	2.31	13.04	13.03	1.68	14.71	1.67
1996/97:										
June-Aug.	12.61	13.35	2.19	15.54	2.93	13.73	13.98	2.23	16.21	2.49
Sep.-Nov.	10.82	11.30	1.96	13.26	2.44	10.61	10.88	1.91	12.79	2.19
Dec.-Feb.	10.58	11.08	1.92	13.00	2.42	10.32	10.52	1.75	12.26	1.94
Mar.-May	10.85	11.82	1.63	13.45	2.60	10.62	11.32	1.58	12.90	2.27
Mkt. year	11.22	11.89	1.92	13.81	2.60	11.32	11.68	1.87	13.54	2.22
1997/98:										
June-Aug.	9.20	10.42	1.20	11.62	2.42	10.10	10.98	1.28	12.27	2.17
Sep.-Nov.	9.31	10.00	1.66	11.66	2.35	9.98	10.50	1.50	12.00	2.02
Dec.-Feb.	8.87	9.65	1.65	11.30	2.43	9.53	10.27	1.44	11.71	2.18
Mar.-May	8.75	9.87	1.20	11.07	2.32	9.72	10.72	1.13	11.84	2.12
Mkt. year	9.03	9.98	1.43	11.41	2.38	9.83	10.62	1.34	11.96	2.12
1998/99:										
June-Aug.	7.80	8.93	1.10	10.03	2.23	8.72	9.97	1.00	10.97	2.24
Sep.-Nov.	8.15	9.43	0.94	10.37	2.22	9.05	10.03	0.92	10.95	1.90
Dec.-Feb.	8.13	9.10	1.29	10.39	2.26	8.87	9.72	1.17	10.88	2.02
Mar.-May	7.57	8.78	1.01	9.79	2.22	8.40	9.47	1.00	10.46	2.06
Mkt. Year	7.91	9.06	1.09	10.15	2.23	8.76	9.80	1.02	10.82	2.06
1999/00:										
June-Aug.	7.62	8.88	0.80	9.68	2.06	8.35	9.20	0.86	10.06	1.71
Sep.-Nov.	7.84	8.85	1.01	9.86	2.02	8.30	9.37	0.92	10.29	1.99
Dec.-Feb.	7.87	8.70	1.09	9.79	1.93	8.06	9.13	1.04	10.17	2.11
Mar.-May										
Mkt. Yr. 4/	7.78	8.81	0.97	9.78	2.00	8.24	9.23	0.94	10.17	1.94

1/ Based on 73-percent extraction rate, cost of 2.28 bushels: At Kansas City, No. 1 hard winter, 13-percent protein; and at Minneapolis, No. 1 dark northern spring, 14-percent protein. 2/ Quoted as mid-month bakers' standard patent at Kansas City and spring standard patent at Minneapolis, bulk basis. 3/ Assumed 50-50 millfeed distribution between bran and shorts or middlings, bulk basis. 4/ Preliminary.

Source: Compiled by Economic Research Service from reports of Agricultural Marketing Service, USDA and Milling and Baking News.

Table 25--U.S. wheat production: Cash costs and returns, 1979-2000

Item	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
						Dollars per planted acre					
Gross value of production (excluding direct government payments):											
Wheat	121.30	112.41	114.35	110.32	128.52	113.97	93.52	66.06	76.21	95.89	99.90
Wheat straw	3.56	4.07	4.61	4.37	4.45	4.48	2.48	2.06	2.18	3.78	3.45
Total, gross value of production	124.86	116.48	118.96	114.69	132.97	118.45	96.00	68.12	78.39	99.67	103.35
Cash expenses:											
Seed	5.01	6.51	7.19	6.65	6.37	6.48	7.59	7.29	6.62	6.69	7.68
Fertilizer, lime, and gypsum	10.06	13.86	17.61	17.56	18.36	18.37	15.91	14.53	13.07	15.34	16.70
Chemicals	2.08	2.23	2.41	3.16	3.27	3.19	4.26	4.06	3.82	3.82	5.02
Custom operations	2.68	2.94	4.54	5.86	6.02	6.04	4.17	4.12	4.12	3.89	4.11
Fuel, lube, and electricity	7.64	10.62	12.33	11.77	11.06	9.54	9.93	6.74	7.56	7.37	7.96
Repairs	6.47	7.23	7.80	7.18	7.77	7.49	6.56	6.17	6.32	6.41	6.39
Hired labor	2.68	2.88	3.00	3.02	3.21	3.15	2.43	2.54	2.53	2.59	4.95
Other variable cash expenses 1/	0.39	0.49	0.41	0.82	0.71	0.75	0.25	0.22	0.20	0.20	0.20
Total, variable cash expenses	37.01	46.76	55.29	56.02	56.77	55.01	51.10	45.67	44.24	46.31	53.01
General farm overhead	6.62	7.08	7.39	7.11	8.05	8.62	5.10	4.69	6.01	6.89	5.01
Taxes and insurance	5.95	7.33	7.39	6.90	7.69	7.86	7.44	7.92	8.11	8.19	8.72
Interest	13.40	14.58	19.81	18.45	21.86	22.98	12.69	9.08	10.09	9.57	8.77
Total, fixed cash expenses	25.97	28.99	34.59	32.46	37.60	39.46	25.23	21.69	24.21	24.65	22.50
Total, cash expenses	62.97	75.75	89.88	88.49	94.37	94.47	76.33	67.36	68.45	70.96	75.51
Gross value of production less cash expenses	61.89	40.73	29.08	26.20	38.60	23.98	19.67	0.76	9.94	28.71	27.84
Harvest-period price (dollars/bu.)	3.74	3.76	3.63	3.38	3.48	3.37	2.98	2.29	2.39	3.50	3.81
Yield (bu./planted acre)	32.40	29.87	31.47	32.64	36.89	33.79	31.41	28.79	31.87	27.42	26.22

Item	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999F	2000F
						Dollars per planted acre					
Gross value of production (excluding direct government payments):											
Wheat	94.27	72.68	112.12	99.21	105.54	130.23	146.94	125.29	104.73	NA	NA
Wheat straw	1.52	1.21	1.37	1.24	4.55	4.44	5.35	5.53	5.24	NA	NA
Total, gross value of production	95.79	73.89	113.49	100.45	110.09	134.67	152.29	130.82	109.97	NA	NA
Cash expenses:											
Seed	7.69	5.87	6.67	6.94	7.46	7.57	9.26	9.02	7.71	7.60	7.60
Fertilizer, lime, and gypsum	14.59	15.30	14.46	14.37	16.70	20.89	21.11	19.85	18.21	17.90	18.54
Chemicals	5.45	5.73	6.15	6.35	5.69	5.86	6.23	6.32	6.13	6.16	5.99
Custom operations	4.56	4.25	4.24	4.27	5.70	5.96	5.35	6.33	6.85	6.75	6.89
Fuel, lube, and electricity	8.72	8.96	8.81	8.90	8.55	8.47	9.71	10.20	9.07	9.69	10.63
Repairs	6.51	6.70	7.22	7.53	11.69	12.20	13.26	13.37	13.82	13.85	13.79
Hired labor	4.92	5.34	5.52	5.33	3.83	4.01	4.69	5.00	5.40	5.53	5.52
Other variable cash expenses 1/	0.20	0.18	0.20	0.20	0.36	0.38	0.40	0.40	0.40	0.39	0.40
Total, variable cash expenses	52.64	52.33	53.27	53.89	59.98	65.34	70.01	70.49	67.59	67.87	69.36
General farm overhead	6.47	5.15	4.97	6.04	5.36	7.00	5.80	6.78	5.35	5.41	5.48
Taxes and insurance	10.28	8.88	8.07	10.39	9.29	10.08	10.02	10.70	10.01	10.08	10.27
Interest	9.56	9.12	7.77	7.87	7.84	10.94	9.63	9.68	8.38	8.41	8.78
Total, fixed cash expenses	26.31	23.15	20.81	24.30	22.49	28.02	25.45	27.16	23.74	23.90	24.53
Total, cash expenses	78.95	75.48	74.08	78.19	82.47	93.36	95.46	97.65	91.33	91.77	93.89
Gross value of production less cash expenses	16.84	-1.59	39.41	22.26	27.62	41.31	56.83	33.17	18.64	NA	NA
Harvest-period price (dollars/bu.)	2.78	2.57	3.32	2.99	3.16	4.08	4.84	3.49	2.64	NA	NA
Yield (bu./planted acre)	33.91	28.28	33.77	33.18	33.40	31.92	30.36	35.90	39.67	NA	NA

1/ Cost of purchased irrigation water and baling. NA = Not available. F = Forecasts as of November 1999. Survey base changed on 1982, 1986, 1989, and 1994.

Source: Economic Research Service, USDA. Contact: Mir Ali, (202-694-5558) or Email: mirali@ers.usda.gov

Table 26--U.S. wheat production: Economic costs and returns, 1979-2000

Item	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
						Dollars per planted acre					
Gross value of production (excluding direct government payments):											
Wheat	121.30	112.41	114.35	110.32	128.52	113.97	93.52	66.06	76.21	95.89	99.90
Wheat straw	3.56	4.07	4.61	4.37	4.45	4.48	2.48	2.06	2.18	3.78	3.45
Total, gross value of production	124.86	116.48	118.96	114.69	132.97	118.45	96.00	68.12	78.39	99.67	103.35
Economic (full ownership) costs:											
Variable cash expenses	37.01	46.76	55.29	56.03	56.77	55.01	51.10	45.67	44.24	46.31	53.01
General farm overhead	6.62	7.08	7.39	7.11	8.05	8.62	5.10	4.69	6.01	6.89	5.01
Taxes and insurance	5.95	7.33	7.39	6.90	7.69	7.86	7.44	7.92	8.11	8.19	8.72
Capital replacement	16.87	18.15	19.30	19.41	21.02	20.48	19.63	19.90	20.33	20.67	9.66
Operating capital	1.95	2.83	3.91	3.09	2.51	2.72	2.11	1.38	1.46	1.78	2.12
Other nonland capital	3.68	3.64	3.46	3.24	3.19	3.84	3.67	3.66	3.69	4.33	9.67
Land	35.30	30.06	29.44	29.75	34.41	29.78	30.81	23.30	24.87	31.38	47.57
Unpaid labor	5.95	6.40	6.67	6.72	7.14	7.01	5.40	5.66	5.63	5.77	8.67
Total, economic costs	113.33	122.25	132.85	132.25	140.78	135.31	125.26	112.18	114.34	125.32	144.43
Residual returns to management and risk	11.53	-5.77	-13.89	-17.56	-7.81	-16.86	-29.26	-44.06	-35.95	-25.65	-41.08
Harvest-period price (dollars/bu.)	3.74	3.76	3.63	3.38	3.48	3.37	2.98	2.29	2.39	3.50	3.81
Yield (bu./planted acre)	32.40	29.87	31.47	32.64	36.89	33.79	31.41	28.79	31.87	27.42	26.22

Item	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999F	2000F
						Dollars per planted acre					
Gross value of production (excluding direct government payments):											
Wheat	94.27	72.68	112.12	99.21	105.54	130.23	146.94	125.29	104.73	NA	NA
Wheat straw	1.52	1.21	1.37	1.24	4.55	4.44	5.35	5.53	5.24	NA	NA
Total, gross value of production	95.79	73.89	113.49	100.45	110.09	134.67	152.29	130.82	109.97	NA	NA
Economic (full ownership) costs:											
Variable cash expenses	52.64	52.33	53.27	53.89	59.98	65.34	70.01	70.49	67.59	67.87	69.36
General farm overhead	6.47	5.15	4.97	6.04	5.36	7.00	5.80	6.78	5.35	5.41	5.48
Taxes and insurance	10.28	8.88	8.07	10.39	9.29	10.08	10.02	10.70	10.01	10.08	10.27
Capital replacement	9.89	10.60	10.93	11.38	21.87	22.81	24.95	24.98	25.81	25.86	25.76
Operating capital	1.97	1.42	0.95	0.84	1.40	1.83	1.78	1.83	1.64	1.57	1.83
Other nonland capital	10.67	12.18	13.30	13.84	11.52	11.95	12.16	12.40	11.45	11.49	11.42
Land	46.33	33.92	49.18	47.25	36.90	42.51	46.40	43.06	37.90	34.81	36.63
Unpaid labor	11.24	9.48	10.00	9.69	8.20	8.51	9.36	10.03	10.63	10.89	10.87
Total, economic costs	149.49	133.96	150.67	153.32	154.52	170.03	180.48	180.27	170.38	167.98	171.62
Residual returns to management and risk	-53.70	-60.07	-37.18	-52.87	-44.43	-35.36	-28.19	-49.45	-60.41	NA	NA
Harvest-period price (dollars/bu.)	2.78	2.57	3.32	2.99	3.16	4.08	4.84	3.49	2.64	NA	NA
Yield (bu./planted acre)	33.91	28.28	33.77	33.18	33.40	31.92	30.36	35.90	39.67	NA	NA

NA = Not available. F = Forecasts as of November, 1999. Survey base changed in 1982, 1986, 1989, and 1994.

Source: Economic Research Service, USDA. Contact: Mir Ali, (202-694-5558) or Email: mirali@ers.usda.gov

Appendix table 27--On-farm receipts of major crops, United States, 1986-2000 1/

Receipts 2/	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998 P	1999 F	2000 F
								Billion dollars							
Food grains	5.72	5.79	7.47	8.25	7.48	7.33	8.47	8.18	9.55	10.42	10.72	10.14	8.73	7.41	6.75
Rice	0.72	0.72	1.09	0.94	1.05	1.03	1.26	0.70	1.67	1.28	1.57	1.68	1.74	1.45	1.07
Rye	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	NA	NA
Wheat	4.98	5.04	6.36	7.29	6.41	6.28	7.19	7.46	7.86	9.12	9.13	8.44	6.97	5.94	5.65
Feed crops	16.99	14.63	14.28	17.05	18.67	19.33	20.10	20.20	20.31	24.52	27.18	27.10	22.93	20.55	19.45
Barley 3/	0.83	0.75	0.86	0.76	0.82	0.81	0.81	0.66	0.70	0.82	0.97	0.79	0.64	1.43	1.37
Corn	12.40	9.98	8.92	11.39	13.35	14.44	14.67	14.61	14.64	18.89	20.67	19.88	17.10	15.24	14.23
Hay	2.25	2.53	3.12	3.38	3.27	2.77	3.12	3.56	3.70	3.29	3.89	4.74	4.12	3.88	3.86
Oats	0.18	0.26	0.30	0.27	0.22	0.14	0.18	0.14	0.13	0.12	0.14	0.11	0.08	NA	NA
Sorghum grain	1.33	1.10	1.07	1.24	1.00	1.16	1.31	1.23	1.12	1.38	1.51	1.56	0.97	NA	NA
Silage	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	NA	NA
Cotton (incl. seed)	3.37	4.19	4.53	5.03	5.49	5.24	5.19	5.25	6.74	6.85	6.98	6.35	6.01	4.96	5.34
Tobacco	1.92	1.82	2.07	2.41	2.73	2.88	2.96	2.95	2.66	2.55	2.79	2.87	2.99	2.21	1.77
Oil crops 4/	10.61	11.28	13.50	11.87	12.26	12.70	13.29	13.22	14.65	15.49	16.34	19.67	17.20	14.57	14.29
Flaxseed	0.05	0.02	0.02	0.01	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.03	NA	NA
Peanuts	1.07	1.03	1.12	1.12	1.26	1.39	1.29	1.03	1.23	1.01	1.03	1.00	1.02	1.06	0.98
Soybeans	9.24	10.02	12.14	10.52	10.76	10.97	11.62	11.78	12.82	13.87	14.80	18.03	15.45	12.86	12.73
Sunflowerseed	0.25	0.21	0.22	0.21	0.22	0.27	0.30	0.30	0.46	0.47	0.37	0.45	0.48	NA	NA
Vegetables	8.86	9.89	9.79	11.56	11.46	11.62	11.81	13.67	14.19	15.04	14.44	14.96	15.34	15.07	15.66
Fruits/nuts	7.25	8.06	9.03	9.15	9.42	9.92	10.18	10.26	10.32	11.10	11.93	13.07	11.73	12.50	12.59
All other crops 5/	9.10	10.14	10.93	11.58	12.80	13.06	13.70	13.72	14.68	14.99	15.79	16.91	17.30	17.81	17.49
Total Crops	63.83	65.80	71.60	76.89	80.31	82.08	85.68	87.45	93.09	100.95	106.18	111.08	102.22	95.08	93.34

NA = Not available. P = Preliminary. F = Forecast.

1/ Includes proceeds from placement of commodities under Commodity Credit Corporation loans. 2/ Calendar year. 3/ 1999-2000 includes barley, oats & sorghum.

4/ Excludes cotton seeds. 5/ Includes sugar, seed, green house, nursery, and other miscellaneous crops.

Source: Economic Research Service, USDA. Contact: Larry Traub, (202-694-5593) or email: ltraub@ers.usda.gov

Appendix table 28--Schedule of wheat base acres to be released from existing CRP contracts, by year of expiration 1/

State	Total	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010+
						Acres						
Alabama	12,454.5	1,549.1	2,634.7	3,525.2	0.0	154.1	2,852.9	356.6	1,348.2	0.0	0.0	33.7
Arkansas	10,684.5	1,930.0	2,744.3	3,187.0	31.2	0.0	1,117.0	619.1	890.4	0.0	0.0	165.5
California	75.5	0.0	0.5	75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colorado	13,302.1	650.2	6,207.3	4,716.3	0.0	0.0	926.0	802.3	0.0	0.0	0.0	0.0
Delaware	4.9	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Florida	2,327.5	159.1	632.4	1,154.9	0.0	0.0	215.0	166.1	0.0	0.0	0.0	0.0
Georgia	13,681.2	2,682.7	3,668.9	4,778.5	0.0	0.0	2,228.4	322.7	0.0	0.0	0.0	0.0
Idaho	33,693.8	7,008.5	11,857.0	14,017.0	0.0	0.0	505.2	306.1	0.0	0.0	0.0	0.0
Illinois	44,164.2	4,889.8	16,136.1	14,013.7	173.9	27.0	4,897.9	2,630.0	836.1	0.0	0.0	559.7
Indiana	14,389.8	1,485.3	5,595.8	5,268.9	55.9	78.9	856.3	664.2	307.0	0.0	0.0	77.5
Iowa	5,848.6	832.2	1,677.7	1,997.2	34.8	6.8	927.6	334.7	30.9	0.0	0.0	6.7
Kansas	49,083.8	4,355.5	19,363.5	11,791.8	0.6	2.6	4,914.8	8,653.1	0.0	0.0	0.0	1.9
Kentucky	9,053.2	1,032.8	2,604.9	4,122.5	0.0	0.0	996.4	242.1	24.5	0.0	0.0	30.0
Louisiana	3,172.6	511.1	380.5	987.7	41.5	0.0	486.7	409.2	99.8	0.0	0.0	256.1
Maine	3.3	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maryland	588.4	162.7	134.6	158.8	0.0	0.0	117.9	12.5	0.0	0.0	0.0	1.9
Michigan	19,434.2	1,795.2	5,408.2	9,368.6	0.0	4.2	2,247.0	432.7	70.5	0.0	0.0	107.8
Minnesota	26,175.5	4,462.0	13,387.1	3,640.4	96.7	3.5	2,741.0	1,425.4	360.5	0.0	0.0	58.9
Mississippi	24,012.5	3,532.2	4,289.4	4,630.8	39.3	10.6	3,365.0	3,806.9	3,036.6	0.0	0.0	1,301.7
Missouri	65,698.0	6,452.2	19,569.2	21,244.1	95.8	37.1	11,065.5	5,826.4	664.8	0.0	0.0	742.9
Montana	86,315.8	19,979.3	19,644.5	19,624.2	0.0	0.0	15,228.6	11,839.2	0.0	0.0	0.0	0.0
Nebraska	18,080.1	1,224.3	9,351.4	3,786.1	3.6	3.0	2,295.5	1,416.2	0.0	0.0	0.0	0.0
New Jersey	1.5	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0
New Mexico	3,472.9	0.0	754.2	56.6	0.0	0.0	2,096.4	565.7	0.0	0.0	0.0	0.0
New York	542.7	135.3	139.8	88.6	0.0	0.0	171.5	7.4	0.1	0.0	0.0	0.0
North Carolina	2,504.2	441.0	1,038.0	629.3	0.0	0.0	365.4	30.5	0.0	0.0	0.0	0.0
North Dakota	24,359.9	4,639.2	6,609.1	3,307.7	51.1	26.0	5,408.3	4,307.9	0.0	0.0	0.0	10.6
Ohio	21,930.1	2,588.1	9,056.8	8,515.4	150.0	4.9	985.6	372.4	199.8	0.0	0.0	57.1
Oklahoma	33,099.7	2,688.2	14,442.6	6,070.8	1.9	0.0	3,902.4	5,801.0	162.0	0.0	0.0	30.8
Oregon	6,647.8	1,147.0	3,539.8	1,357.9	0.0	0.0	0.2	602.9	0.0	0.0	0.0	0.0
Pennsylvania	892.6	92.8	332.7	165.4	0.0	0.0	237.6	59.1	0.0	0.0	0.0	5.0
South Carolina	3,431.1	460.1	682.9	1,299.4	0.0	0.0	837.0	151.7	0.0	0.0	0.0	0.0
South Dakota	17,786.2	1,032.5	2,299.2	9,973.4	12.9	1.0	1,377.3	3,082.4	5.2	0.0	0.0	2.3
Tennessee	9,226.2	1,932.5	3,302.2	2,808.2	2.4	0.0	947.3	79.6	15.3	0.0	0.0	138.7
Texas	55,020.7	8,513.5	22,245.9	15,726.1	0.0	0.0	5,392.3	3,142.9	0.0	0.0	0.0	0.0
Utah	801.4	0.0	513.4	288.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Virginia	892.4	174.1	211.3	330.8	2.9	0.0	171.5	1.8	0.0	0.0	0.0	0.0
Washington	33,065.7	3,230.6	14,149.2	11,280.1	0.0	0.0	678.9	3,726.9	0.0	0.0	0.0	0.0
Wisconsin	4,071.6	612.2	886.7	1,350.9	67.5	28.3	500.5	309.7	234.5	0.0	0.0	81.3
Wyoming	343.3	0.0	0.0	0.0	0.0	0.0	343.3	0.0	0.0	0.0	0.0	0.0
Total U.S.	670,334.0	92,386.2	225,491.8	195,340.6	862.0	388.0	81,401.7	62,507.4	8,286.2	0.0	0.0	3,670.1

1/ As of March 2, 2000. Contracts expire on September 30 of year indicated.

Source: Farm Service Agency, USDA.

Appendix table 29--Wheat: Supply and disappearance, United States, 1910/11-1999/2000

Marketing year 1/	Acreage harvested	Yield per harvested acre	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

See footnotes at end of table.

Continued--

Appendix table 29--Wheat: Supply and disappearance, United States, 1910/11-1999/2000--Continued

Marketing year 1/	Acreage harvested	Yield per harvested acre	Production	Domestic use 2/	Exports	Ending stocks	Season-average farm price	Stocks-to-use ratio
	Million acres	Bushels		---Million bu.---			$/bu.	Percent
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	836.9	1,194.2	924.1	2.97	45.5
1979/80	62.5	34.2	2,134.1	783.0	1,375.3	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	1,096.0	1,587.9	1,260.8	2.57	47.0
1988/89	53.2	34.1	1,812.2	979.2	1,414.9	701.6	3.72	29.3
1989/90	62.2	32.7	2,036.6	992.3	1,232.0	536.5	3.72	24.1
1990/91	69.1	39.5	2,729.8	1,365.1	1,069.5	868.1	2.61	35.7
1991/92	57.8	34.3	1,980.1	1,131.6	1,282.3	475.0	3.00	19.7
1992/93	62.8	39.3	2,466.8	1,127.6	1,353.6	530.7	3.24	21.4
1993/94	62.7	38.2	2,396.4	1,239.7	1,227.8	568.5	3.26	23.0
1994/95	61.8	37.6	2,321.0	1,286.6	1,188.3	506.6	3.45	20.5
1995/96	61.0	35.8	2,182.7	1,140.1	1,241.1	376.0	4.55	15.8
1996/97	62.8	36.3	2,277.4	1,300.6	1,001.5	443.6	4.30	19.3
1997/98	62.8	39.5	2,481.5	1,257.1	1,040.4	722.5	3.38	31.4
1998/99 3/	59.0	43.2	2,547.3	1,384.5	1,042.4	945.9	2.65	39.0
1999/00 4/	53.9	42.7	2,302.4	1,296.0	1,050.0	997.4	2.45-2.55	42.5

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

Source: Economic Research Sevice, USDA.

Appendix table 30--Quarterly government stock activity for wheat, 1994/95-1999/2000

	1994/95				1995/96				1996/97			
	June-Aug.	Sep.-Nov.	Dec.-Feb.	Mar.-May	June-Aug.	Sep.-Nov.	Dec.-Feb.	Mar.-May	June-Aug.	Sep.-Nov.	Dec.-Feb.	Mar.-May
	Million bushels											
9-month loans:												
Carryin outstanding	67.2	147.8	155.3	110.7	63.7	56.7	86.4	42.6	13.0	42.0	131.2	130.3
Loans made	122.0	67.0	29.5	12.6	46.2	55.3	11.1	1.4	40.8	101.5	45.8	6.2
Certificate exchange	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash redemption	41.2	59.4	74.1	59.6	53.2	25.6	54.9	31.0	11.8	12.3	46.7	64.3
CCC collateral acquired	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reserve conversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Carryout outstanding	147.8	155.3	110.7	63.7	56.7	86.4	42.6	13.0	42.0	131.2	130.3	72.2
FOR loans:												
Carryin FOR	5.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reserve conversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash redemption	5.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCC collateral acquired	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Certificate exchange	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Carryout FOR	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCC owned:												
Carryin CCC	150.3	146.4	142.8	142.3	142.1	141.5	141.2	137.5	118.2	109.5	96.1	95.3
CCC collateral acquired	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Certificate exchange	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other 1/	4.1	3.7	0.5	0.2	0.6	0.3	3.7	19.3	8.7	13.4	0.8	2.3
Carryout CCC	146.4	142.8	142.3	142.1	141.5	141.2	137.5	118.2	109.5	96.1	95.3	93.0
Unencumbered carryin	345.4	1,775.1	1,193.0	716.1	300.8	1,682.9	1,110.7	643.4	244.8	1,572.7	991.5	596.2
Total carryin stocks	568.5	2,069.5	1,491.1	969.1	506.6	1,881.1	1,338.3	823.5	376.0	1,724.2	1,218.8	821.8

See footnotes at end of table.

Continued--

Appendix table 30--Quarterly government stock activity for wheat, 1994/95-1999/2000--Continued

	1997/98				1998/99				1999/2000			
	June-Aug.	Sep.-Nov.	Dec.-Feb.	Mar.-May	June-Aug.	Sep.-Nov.	Dec.-Feb.	Mar.-May	June-Aug.	Sep.-Nov.	Dec.-Feb.	Mar.-May
	Million bushels											
9-month loans:												
Carryin outstanding	72.2	101.0	169.1	191.3	133.9	236.4	246.1	242.2	140.0	101.4	117.4	105.0
Loans made	82.8	96.9	65.5	17.5	200.3	89.9	43.3	26.9	65.4	57.3	25.1	NA
Certificate exchange	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
Cash redemption	54.0	28.8	43.3	73.4	92.4	72.6	44.3	114.8	87.5	35.7	34.1	NA
CCC collateral acquired	0.0	0.0	0.0	1.5	5.4	7.6	2.9	14.3	16.5	5.6	3.4	NA
Reserve conversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
Carryout outstanding	101.0	169.1	191.3	133.9	236.4	246.1	242.2	140.0	101.4	117.4	105.0	NA
FOR loans:												
Carryin FOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
Reserve conversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
Cash redemption	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
CCC collateral acquired	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
Certificate exchange	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
Carryout FOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
CCC owned:												
Carryin CCC	93.0	93.2	93.1	93.0	94.2	99.8	126.6	124.2	127.9	132.2	115.0	109.3
CCC collateral acquired	0.0	0.0	0.0	1.5	5.4	7.6	2.9	14.3	16.5	5.6	3.4	NA
Certificate exchange	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
Other 1/	-0.2	0.1	0.1	0.3	-0.2	-19.2	5.3	10.6	12.2	22.8	9.1	NA
Carryout CCC	93.2	93.1	93.0	94.2	99.8	126.6	124.2	127.9	132.2	115.0	109.3	NA
Unencumbered carryin	278.4	1,882.1	1,357.0	882.3	494.4	2,049.3	1,523.1	1,084.0	678.0	1,211.4	NA	NA
Total carryin stocks	443.6	2,076.3	1,619.2	1,166.6	722.5	2,385.5	1,895.8	1,450.4	945.9	1,445.0	NA	NA

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

Source: Farm Service Agency, USDA.

Appendix table 31--U.S. wheat exports: By selected program, 1978/79-1998/99

Fiscal year	P.L. 480	Section 416	Food for Progress	AID 1/	Total concessional	CCC export credit	Export Enhancement Program	Total U.S. wheat exports 2/	Total concessional, CCC export credit, and EEP exports divided by total exports 3/
				1,000 metric tons					Percent
1978/79	3,234	0	--	7	3,241	2,684	0	31,340	19
1979/80	2,785	0	--	44	2,829	1,945	0	36,066	13
1980/81	2,537	0	--	4	2,541	3,261	0	42,246	14
1981/82	2,978	0	--	0	2,978	3,725	0	44,607	15
1982/83	3,340	0	--	123	3,463	8,597	0	36,701	33
1983/84	3,442	0	--	0	3,442	11,406	0	41,699	36
1984/85	4,392	0	--	74	4,466	8,221	0	28,524	44
1985/86	4,685	76	--	513	5,274	7,740	4,916	24,626	59
1986/87	3,927	406	--	1	4,334	8,125	12,214	28,204	67
1987/88	3,321	1,186	--	292	4,799	9,273	26,679	40,523	80
1988/89	3,020	137	--	806	3,963	8,897	17,906	37,660	68
1989/90	2,985	0	52	28	3,065	7,759	12,806	28,064	70
1990/91	3,067	0	92	0	3,159	8,339	15,150	26,792	78
1991/92	2,286	0	130	0	2,416	13,334	21,111	34,322	76
1992/93	2,043	891	1,067	NA	4,001	8,538	21,806	36,081	79
1993/94	2,801	0	726	NA	3,527	5,874	18,157	31,145	75
1994/95	1,491	0	457	NA	1,948	4,202	18,073	32,088	68
1995/96	1,530	0	0	NA	1,530	5,662	570	33,708	23
1996/97 4/	1,009	0	146	NA	1,155	4,844	0	24,526	24
1997/98 4/	1,453	0	274	NA	1,727	4,550	0	25,791	24
1998/99 4/	556	4,682	95	NA	5,333	3,500	0	28,806	31

1/ U.S. Agency for International Development Commodity Import Program. 2/ Excludes exports of seed wheat for sowing. 3/ Shares of wheat exports take into consideration the overlap between sales under the EEP and export credit guarantee programs. 4/ 1997, 1998, and 1999 P.L. 480 data are planned shipments of bulk wheat. -- = Not applicable. NA = Not available.

Sources: P.L. 480 shipment data for 1979-96 are from USDA, ERS as of 2/19/97; FY 1996/97-1998/99 planned food aid shipments are from USDA, FAS, annual reports of planned shipments; export credit guarantee and EEP data are from USDA, FAS, Export Credits Division; export data are from USDA, ERS, Foreign Agricultural Trade of the United States.

Appendix table 32--Rye: Supply, disappearance, area, and price, 1988/89-1999/2000

Item	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99 1/	1999/00 2/
						1,000 acres						
Area:												
Planted	2,374	2,014	1,625	1,671	1,542	1,493	1,613	1,602	1,457	1,400	1,566	1,582
Harvested	595	484	375	395	391	381	407	385	345	316	418	383
						Bushels per acre						
Yield	24.7	28.2	27.1	24.6	29.3	27.1	27.9	26.1	25.9	25.7	29.1	28.7
						Million bushels						
Supply:												
Beginning stocks	18.9	10.3	5.6	3.3	1.5	1.6	1.0	1.5	0.9	0.8	0.8	2.4
Production	14.7	13.6	10.2	9.7	11.4	10.3	11.3	10.1	8.9	8.1	12.2	11.0
Imports	0.2	0.0	3.9	4.5	3.1	4.6	4.4	3.8	4.3	5.6	3.3	4.0
Total supply	33.8	24.0	19.7	17.6	16.1	16.5	16.7	15.3	14.2	14.4	16.2	17.4
Disappearance:												
Food	3.5	3.5	3.5	3.5	3.4	3.5	3.3	3.3	3.5	3.3	3.6	3.3
Feed and residual	11.4	9.1	7.7	7.5	6.1	7.0	6.9	6.0	4.9	5.3	4.1	5.9
Seed	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0
Industry	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0
Total domestic	20.1	17.6	16.2	16.0	14.5	15.5	15.2	14.3	13.4	13.6	13.8	15.2
Exports	3.4	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3
Total disappearance	23.5	18.4	16.4	16.1	14.5	15.5	15.2	14.4	13.4	13.7	13.8	15.5
Ending stocks	10.3	5.6	3.3	1.5	1.6	1.0	1.5	0.9	0.8	0.8	2.4	1.9
						$/bushel						
Prices:												
Loan rate	1.50	1.40	1.38	1.33	1.46	1.46	1.61	1.61	0.00	0.00	0.00	0.00
Season-average price	2.52	2.06	2.09	2.20	2.38	2.55	2.70	2.90	3.70	3.75	2.49	2.28
						$1,000						
Value of production	37,006	28,099	21,298	21,448	27,227	26,367	30,621	28,948	33,118	30,120	30,404	25,054

1/ Preliminary. 2/ Projected.

Source: Economic Research Service, USDA.

Appendix table 33--Rye: Production by major States, 1988-99

State	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
						1,000 bushels						
Georgia	1,890	1,610	1,320	1,300	1,560	1,380	1,890	1,155	1,820	1,430	1,050	1,050
Indiana	210	204	124	100	156	150	120	116	44	64	76	70
Michigan	650	660	580	360	496	420	442	544	351	450	420	756
Minnesota	920	1,088	868	648	720	667	810	609	480	400	837	775
Nebraska	1,375	600	750	1,000	702	500	546	480	323	240	288	360
N. Jersey	310	182	144	192	259	182	190	304	81	175	165	120
N. York	396	480	260	264	288	216	248	315	224	231	525	570
N. Carolina	780	525	345	500	360	750	650	500	500	420	440	644
N. Dakota	1,350	1,064	780	992	1,394	1,050	700	726	528	513	2,562	1,517
Oklahoma	720	532	342	665	798	660	945	810	975	1,080	1,540	1,045
Pennsylvania	684	576	496	270	648	340	320	330	216	400	495	600
S. Carolina	720	644	594	630	675	380	600	440	520	250	400	500
S. Dakota	2,250	3,240	1,870	1,152	1,666	1,600	1,485	1,650	1,476	728	1,400	1,012
Virginia	560	264	256	264	288	165	252	175	264	200	175	272

Source: National Agricultural Statistics Service, USDA.

Appendix table 34--NIS 1/ and the Baltics (former Soviet Union) wheat: Supply and disappearance, 1970/71-1999/2000

Year	Supply						Disappearance					
Beginning	Area			Beginning			Domestic use				Total	Ending
July 1	harvested	Yield	Production	stocks	Imports	Total	Feed	Nonfeed	Total	Exports	disappearance	stocks
	1,000 ha	Mt/ha	1,000 metric tons									
1970/71	65,230	1.42	92,601	NA	484	93,085	43,478	50,404	93,882	7,203	101,085	NA
1971/72	64,035	1.44	91,933	NA	3,525	95,458	41,394	45,236	86,630	5,828	92,458	NA
1972/73	58,492	1.36	79,571	NA	15,590	95,161	45,241	46,620	91,861	1,300	93,161	NA
1973/74	63,155	1.62	102,051	NA	4,508	106,559	35,927	52,632	88,559	5,000	93,559	NA
1974/75	59,676	1.31	78,272	NA	2,500	80,772	38,111	49,661	87,772	4,000	91,772	NA
1975/76	61,985	1.00	61,826	NA	10,100	71,926	33,478	47,948	81,426	500	81,926	NA
1976/77	59,467	1.51	90,097	NA	4,600	94,697	33,078	52,619	85,697	1,000	86,697	NA
1977/78	62,030	1.39	86,078	NA	6,649	92,727	47,899	53,828	101,727	1,000	102,727	NA
1978/79	62,898	1.80	112,948	NA	5,142	118,090	49,626	48,964	98,590	1,500	100,090	NA
1979/80	57,682	1.45	83,760	NA	12,125	95,885	57,384	50,001	107,385	500	107,885	NA
1980/81	61,475	1.49	91,485	NA	16,000	107,485	53,085	52,900	105,985	500	106,485	NA
1981/82	59,232	1.28	75,816	NA	20,300	96,116	51,248	48,368	99,616	500	100,116	NA
1982/83	57,278	1.38	78,886	NA	20,800	99,686	47,702	47,484	95,186	500	95,686	NA
1983/84	50,800	1.42	72,241	NA	20,500	92,741	39,041	48,700	87,741	500	88,241	NA
1984/85	51,061	1.26	64,175	NA	28,100	92,275	38,507	48,268	86,775	500	87,275	NA
1985/86	50,265	1.44	72,575	NA	15,700	88,275	39,447	46,628	86,075	500	86,575	NA
1986/87	48,728	1.76	85,998	NA	16,000	101,998	49,575	46,923	96,498	500	96,998	NA
1987/88	46,683	1.66	77,321	NA	31,025	108,346	48,196	50,320	98,516	9,425	107,941	24,605
1988/89	48,056	1.64	78,817	24,605	23,275	126,697	45,301	49,540	94,841	7,925	102,766	23,931
1989/90	47,678	1.83	87,151	23,931	21,540	132,622	50,793	49,905	100,698	7,140	107,838	24,784
1990/91	48,180	2.11	101,891	24,784	22,924	149,599	60,454	50,598	111,052	8,275	119,327	30,272
1991/92	45,919	1.57	72,014	30,272	24,175	126,461	49,052	49,554	98,606	2,180	100,786	25,675
1992/93	47,197	1.90	89,825	25,675	24,507	140,007	52,573	49,673	102,246	6,800	109,046	30,961
1993/94	46,396	1.80	83,534	30,961	13,350	127,845	40,952	48,352	89,304	6,620	95,924	31,921
1994/95	42,523	1.42	60,435	31,921	8,292	100,648	30,298	46,016	76,314	4,323	80,637	20,011
1995/96	45,800	1.32	60,434	20,011	9,662	90,107	26,690	45,000	71,690	6,025	77,715	12,392
1996/97	48,046	1.34	64,412	12,392	6,798	83,602	23,057	47,174	70,231	4,563	74,794	8,808
1997/98	48,829	1.68	81,886	8,808	6,528	97,222	25,092	48,218	73,310	6,139	79,449	17,773
1998/99	45,221	1.27	57,537	17,773	5,607	80,917	17,615	48,824	66,439	8,205	74,644	6,273
1999/00 2/	43,044	1.54	66,101	6,273	8,545	80,919	17,920	48,980	66,900	7,150	74,050	6,869

NA = Not available.

1/ New Independent States (NIS) refers to the 12 countries, excluding the three Baltic nations of Estonia, Latvia, and Lithuania, that comprised the former Soviet Union. 2/ Projected.

Source: Foreign Agricultural Service, USDA.

Appendix table 35--China's wheat: Supply and disappearance, 1970/71-1999/2000

Year	Supply						Disappearance					
Beginning	Area			Beginning			Domestic use				Total	Ending
July 1	harvested	Yield	Production	stocks	Imports	Total	Feed	Nonfeed	Total	Exports	disappearance	stocks
	1,000 ha	Mt/ha	1,000 metric tons									
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	1.85	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	27,955	2.45	68,470	25,700	13,000	107,170	1,700	77,770	79,470	0	79,470	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	87,815	35,700	7,400	130,915	2,100	90,115	92,215	0	92,215	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	8,817	129,557	2,400	99,140	101,540	0	101,540	28,017
1987/88	28,798	2.98	85,840	28,017	15,327	129,184	2,500	100,340	102,840	0	102,840	26,344
1988/89	28,785	2.97	85,432	26,344	15,384	127,160	2,600	101,760	104,360	0	104,360	22,800
1989/90	29,841	3.04	90,807	22,800	12,800	126,407	2,600	101,900	104,500	0	104,500	21,907
1990/91	30,753	3.19	98,229	21,907	9,409	129,545	2,700	103,324	106,024	8	106,032	23,513
1991/92	30,948	3.10	96,000	23,513	15,863	135,376	5,000	106,676	111,676	10	111,686	23,690
1992/93	30,500	3.33	101,590	23,690	6,728	132,008	2,750	106,221	108,971	184	109,155	22,853
1993/94	30,240	3.52	106,390	22,853	4,320	133,563	2,700	107,502	110,202	631	110,833	22,730
1994/95	28,981	3.43	99,300	22,730	10,256	132,286	3,000	107,160	110,160	411	110,571	21,715
1995/96	28,860	3.54	102,215	21,715	12,531	136,461	3,200	108,513	111,713	496	112,209	24,252
1996/97	29,610	3.73	110,570	24,252	2,705	137,527	3,400	108,992	112,392	969	113,361	24,166
1997/98	30,057	4.11	123,389	24,166	1,916	149,471	5,000	109,854	114,854	1,162	116,016	33,455
1998/99	29,774	3.69	109,726	33,455	822	144,003	5,000	110,638	115,638	444	116,082	27,921
1999/00 1/	29,000	3.97	115,000	27,921	700	143,621	5,000	112,000	117,000	500	117,500	26,121

1/ Projected.

Source: Foreign Agricultural Service, USDA.

Appendix table 36--European Union wheat: Supply and disappearance, 1970/71-1999/2000 1/

Year	Supply						Disappearance					
Beginning	Area			Beginning			Domestic use				Total	Ending
August 1	harvested	Yield	Production	stocks	Imports 2/	Total	Feed	Nonfeed	Total	Exports 2/	disappearance	stocks
	1,000 ha	Mt/ha	1,000 metric tons									
1970/71	17,581	2.59	45,598	7,477	14,882	67,957	16,872	37,659	54,531	6,249	60,780	7,177
1971/72	17,667	3.01	53,231	7,177	13,353	73,761	16,337	38,579	54,916	9,362	64,278	9,483
1972/73	17,439	3.07	53,608	9,483	14,385	77,476	18,478	38,216	56,694	12,806	69,500	7,976
1973/74	16,757	3.18	53,278	7,976	14,048	75,302	15,243	37,540	52,783	12,329	65,112	10,190
1974/75	17,337	3.43	59,407	10,190	11,675	81,272	15,927	38,997	54,924	13,594	68,518	12,754
1975/76	15,982	3.18	50,844	12,754	13,438	77,036	12,567	38,320	50,887	15,470	66,357	10,679
1976/77	17,091	3.10	52,938	10,679	11,900	75,517	13,436	39,020	52,456	12,075	64,531	10,986
1977/78	15,472	3.25	50,296	10,986	14,491	75,773	13,400	40,355	53,755	13,710	67,465	8,308
1978/79	16,438	3.72	61,190	8,308	12,725	82,223	14,670	39,243	53,913	16,057	69,970	12,253
1979/80	16,131	3.62	58,376	12,253	13,159	83,788	15,201	39,592	54,793	18,384	73,177	10,611
1980/81	16,995	3.96	67,390	10,611	12,172	90,173	15,740	39,368	55,108	22,485	77,593	12,580
1981/82	16,932	3.74	63,372	12,580	13,383	89,335	16,560	38,865	55,425	23,116	78,541	10,794
1982/83	17,330	4.07	70,561	10,794	10,988	92,343	17,995	37,928	55,923	23,111	79,034	13,309
1983/84	17,621	4.03	71,028	13,309	11,755	96,092	24,025	38,328	62,353	23,907	86,260	9,832
1984/85	17,748	5.12	90,792	9,832	13,512	114,136	26,360	39,920	66,280	29,981	96,261	17,875
1985/86	16,783	4.70	78,959	17,875	15,931	112,765	26,939	38,693	65,632	29,082	94,714	18,051
1986/87	17,274	4.63	79,902	18,051	14,467	112,420	25,085	38,946	64,031	29,409	93,440	18,980
1987/88	17,414	4.52	78,776	18,980	15,552	113,308	25,579	39,830	65,409	30,448	95,857	17,451
1988/89	16,915	4.82	81,516	17,451	14,228	113,195	25,829	40,893	66,722	33,190	99,912	13,283
1989/90	17,682	4.84	85,667	13,283	14,382	113,332	24,774	39,506	64,280	34,946	99,226	14,106
1990/91	17,310	5.15	89,095	14,106	15,508	118,709	26,668	38,432	65,100	35,673	100,773	17,936
1991/92	17,519	5.35	93,709	17,936	16,228	127,873	25,583	41,524	67,107	36,731	103,838	24,035
1992/93	17,431	5.03	87,719	24,035	15,856	127,610	24,537	40,730	65,267	38,209	103,476	24,134
1993/94	15,742	5.27	82,930	24,134	17,412	124,476	30,337	41,837	72,174	36,084	108,258	16,218
1994/95	15,786	5.36	84,541	16,218	17,342	118,101	32,594	41,186	73,780	32,615	106,395	11,706
1995/96	16,161	5.33	86,161	11,706	21,505	119,372	35,390	41,250	76,640	32,003	108,643	10,729
1996/97	16,737	5.89	98,506	10,729	22,904	132,139	38,462	41,655	80,117	38,258	118,375	13,764
1997/98	17,133	5.50	94,181	13,764	25,781	133,726	41,481	41,712	83,193	36,033	119,226	14,500
1998/99	17,095	6.03	103,074	14,500	25,174	142,748	45,305	42,494	87,799	35,927	123,726	19,022
1999/00 3/	17,130	5.66	96,932	19,022	24,950	140,904	46,952	41,948	88,900	36,475	125,375	15,529

1/ Formerly European Community. Data include all 15 members of the European Union including East Germany and the new members; Austria, Finland, and Sweden for all years regardless of membership in a given year. 2/ Includes intra-EU trade. 3/ Projected.

Source: Foreign Agricultural Service, USDA.

Appendix table 37--Canada's wheat: Supply and disappearance, 1970/71-1999/2000

Year	Supply						Disappearance					
Beginning	Area			Beginning			Domestic use				Total	Ending
August 1	harvested	Yield	Production	stocks	Imports	Total	Feed	Nonfeed	Total	Exports	disappearance	stocks
	1,000 ha	Mt/ha	1,000 metric tons									
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	1.84	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	2	30,380	1,982	3,257	5,239	17,543	22,782	7,598
1985/86	13,729	1.77	24,252	7,598	14	31,864	2,060	3,538	5,598	17,697	23,295	8,569
1986/87	14,229	2.20	31,359	8,569	38	39,966	2,838	3,614	6,452	20,783	27,235	12,731
1987/88	13,458	1.93	25,945	12,731	34	38,710	4,438	3,449	7,887	23,518	31,405	7,305
1988/89	12,944	1.23	15,913	7,305	46	23,264	2,260	3,543	5,803	12,429	18,232	5,032
1989/90	13,718	1.81	24,796	5,032	36	29,864	2,164	4,373	6,537	16,885	23,422	6,442
1990/91	14,098	2.28	32,098	6,442	52	38,592	2,919	3,657	6,576	21,731	28,307	10,285
1991/92	14,160	2.26	31,946	10,285	95	42,326	4,170	3,609	7,779	24,481	32,260	10,066
1992/93	13,830	2.16	29,871	10,066	113	40,050	4,435	3,713	8,148	19,709	27,857	12,193
1993/94	12,377	2.20	27,232	12,193	151	39,576	5,732	3,627	9,359	19,100	28,459	11,117
1994/95	10,838	2.13	23,122	11,117	136	34,375	4,035	3,810	7,845	20,851	28,696	5,679
1995/96	11,141	2.25	25,037	5,679	158	30,874	3,900	3,904	7,804	16,342	24,146	6,728
1996/97	12,262	2.43	29,801	6,728	241	36,770	4,389	3,833	8,222	19,501	27,723	9,047
1997/98	11,410	2.13	24,280	9,047	132	33,459	3,350	3,966	7,316	20,134	27,450	6,009
1998/99	10,769	2.24	24,076	6,009	147	30,232	4,215	3,947	8,162	14,705	22,867	7,365
1999/00 1/	10,364	2.59	26,850	7,365	150	34,365	4,500	3,950	8,450	18,500	26,950	7,415

1/ Projected.

Source: Foreign Agricultural Service, USDA.

Appendix table 38--Australia's wheat: Supply and disappearance, 1970/71-1999/2000

Year Beginning October 1	Supply						Disappearance					
	Area harvested	Yield	Production	Beginning stocks	Imports	Total	Domestic use			Exports	Total disappearance	Ending stocks
							Feed	Nonfeed	Total			
	1,000 ha	Mt/ha	1,000 metric tons									
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	1.76	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	885	3,326	8,041	11,367	2,285
1983/84	12,931	1.70	22,016	2,285	0	24,301	1,258	1,885	3,143	13,640	16,783	7,518
1984/85	12,078	1.54	18,666	7,518	0	26,184	1,400	2,168	3,568	14,032	17,600	8,584
1985/86	11,736	1.38	16,167	8,584	0	24,751	1,350	1,514	2,864	16,022	18,886	5,865
1986/87	11,135	1.45	16,119	5,865	7	21,991	1,500	1,157	2,657	15,562	18,219	3,772
1987/88	9,063	1.37	12,369	3,772	11	16,152	1,865	1,687	3,552	9,850	13,402	2,750
1988/89	8,903	1.58	14,060	2,750	14	16,824	950	1,979	2,929	11,295	14,224	2,600
1989/90	9,004	1.58	14,214	2,600	11	16,825	1,000	2,023	3,023	10,767	13,790	3,035
1990/91	9,218	1.63	15,066	3,035	18	18,119	1,500	2,036	3,536	11,760	15,296	2,823
1991/92	7,183	1.47	10,557	2,823	22	13,402	1,366	2,063	3,429	7,103	10,532	2,870
1992/93	9,101	1.78	16,184	2,870	28	19,082	1,894	2,318	4,212	9,853	14,065	5,017
1993/94	8,383	1.97	16,479	5,017	29	21,525	1,760	2,348	4,108	13,707	17,815	3,710
1994/95	8,003	1.11	8,903	3,710	53	12,666	1,633	2,274	3,907	6,354	10,261	2,405
1995/96	9,721	1.70	16,504	2,405	46	18,955	1,778	2,391	4,169	13,311	17,480	1,475
1996/97	11,337	2.09	23,702	1,475	52	25,229	1,178	2,431	3,609	19,225	22,834	2,395
1997/98	10,311	1.88	19,417	2,395	45	21,857	2,757	2,409	5,166	15,343	20,509	1,348
1998/99	11,583	1.91	22,108	1,348	55	23,511	2,788	2,323	5,111	16,000	21,111	2,400
1999/00 1/	12,000	2.04	24,500	2,400	50	26,950	3,300	2,325	5,625	18,500	24,125	2,825

1/ Projected.

Source: Foreign Agricultural Service, USDA.

Appendix table 39--Argentina's wheat: Supply and disappearance, 1970/71-1999/2000

Year Beginning December 1	Supply						Disappearance					
	Area harvested	Yield	Production	Beginning stocks	Imports	Total	Domestic use			Exports	Total disappearance	Ending stocks
							Feed	Nonfeed	Total			
	1,000 ha	Mt/ha	1,000 metric tons									
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	13	9,194	0	4,539	4,539	4,435	8,974	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	1.91	10,900	31	13	10,944	200	4,330	4,530	5,592	10,122	822
1991/92	4,550	2.17	9,880	822	1	10,703	50	4,528	4,578	5,780	10,358	345
1992/93	4,200	2.33	9,800	345	15	10,160	50	4,215	4,265	5,850	10,115	45
1993/94	4,800	2.02	9,700	45	11	9,756	150	4,148	4,298	5,009	9,307	449
1994/95	5,100	2.22	11,300	449	33	11,782	150	4,164	4,314	7,318	11,632	150
1995/96	4,500	1.91	8,600	150	48	8,798	150	4,015	4,165	4,483	8,648	150
1996/97	7,100	2.24	15,900	150	42	16,092	450	4,644	5,094	10,198	15,292	800
1997/98	5,700	2.60	14,800	800	34	15,634	350	4,198	4,548	10,666	15,214	420
1998/99	5,133	2.34	12,000	420	25	12,445	100	3,845	3,945	8,200	12,145	300
1999/00 1/	5,800	2.50	14,500	300	25	14,825	300	4,200	4,500	10,000	14,500	325

1/ Projected.

Source: Foreign Agricultural Service, USDA.