United States Department of Agriculture

Agricultural Marketing Service

February 1999

Grain Transportation Prospects

USDA/STB Grain Logistics Task Force

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

United States Department of Agriculture

Agricultural Marketing Service

February 1999

Grain Transportation Prospects

USDA/STB Grain Logistics Task Force

The *Grain Transportation Prospects* is a product of the USDA/STB Grain Logistics Task Force (GLTF). The members of the GLTF working group are: Gerald A. Bange, Chairperson, World Agricultural Outlook Board, USDA; Melvin F. Clemens, Jr., Surface Transportation Board; Steve P. Gill, Farm Service Agency, USDA; Brian D. McKee, Grain Inspection, Packers and Stockyards Administration, USDA; Jerry D. Norton, Agricultural Marketing Service, USDA; Peter A. Riley, Economic Research Service, USDA; Robert Riemenschneider, Foreign Agricultural Service, USDA; Jim Schaub, Office of Chief Economist, USDA; and Frederic A. Vogel, National Agricultural Statistics Service, USDA.

Summary

January estimates put 1998/99 U.S. grain (excluding rice) and soybean production at 16,120 million bushels. This is up 4 percent from 1997/98 and only marginally below 1994/95's 16,147 million bushels. U.S. grain and soybean use for 1998/99 is projected at 15,484 million bushels, up 3 percent from last year and just 167 million bushels below the 1994/95 record. Domestic use is projected at an all-time high of 11,627 million bushels, while exports are expected to rise 4 percent from 1997/98 at 3,857 million bushels. Grain and soybean stocks, as of December 1, 1998, were reported at 12,868 million bushels, up 11 percent from a year earlier. This is the highest level of December 1 stocks since 1987 when stocks totaled 14,027 million bushels.

Responding to the growing need for storage capacity, farmers and grain facility operators expanded storage capacity during 1998. Grain storage capacity (on- and off-farm) increased by 219 million bushels, or just more than 1 percent. This was the first expansion in storage capacity since 1987. Even so, with 67 percent of available storage capacity in use, storage utilization on December 1 was at its highest level for that date in recent years. Despite this increase in storage capacity and the lack of widespread rail congestion and service problems during the fall shipping season, grain storage capacity was short in many areas during the past fall's harvest.

U.S. demand for rail grain transportation during the fourth quarter of 1998 (October-December) was its strongest since fourth quarter 1996. Grain carloadings for the fourth quarter were up 6 percent over fourth quarter 1997 and virtually even with grain carloadings in the fourth quarters of 1995 and 1996. Fourth quarter increases in total carloadings resulted from increased demand for domestic shipments on the western U.S. railroads. Export rail shipments, while up from the third quarter, were down compared to fourth quarter 1997. The year-to-year drop in fourth quarter export rail shipments is because of continuing weak demand for export grain in the Pacific Northwest, particularly corn.

Rail demand during the first quarter of 1999 should weaken, as it usually does following the harvest shipping season. The closing of the Upper Mississippi River System and the ending of the St. Lawrence Seaway shipping season in December have had little effect on traded freight rates. Guarantees for grain car service offered for the first months of 1999 by the major western railroads are going unsold or for bids at or marginally above base tariff rates. In the secondary market, grain car service guarantees are trading at discounts for the February-April period. The normal seasonal pattern for rail demand and the current soft rates in the rail and barge freight markets suggest a general softening in demand for grain transportation during the first months of this year. However, severe winter storms, heavy spring rains, or unanticipated regional increases in feeding or export demand, as well as changes in ocean freight rates, could still affect rail service and demand in the coming weeks. Wheat exports are also expected to increase in the coming months and remain strong because of shipments of donations to Russia and other needy countries.

This report is compiled by USDA's Agricultural Marketing Service. It contains information provided by the Surface Transportation Board and by USDA's Agricultural Marketing Service, Economic Research Service, Farm Service Agency, Foreign Agricultural Service, and National Agricultural Statistics Service. It is approved for release by the World Agricultural Outlook Board. For questions concerning this report, contact Jerry D. Norton, USDA-Agricultural Marketing Service, 202-690-1303, "jerry_d_norton@usda.gov". Unless otherwise referenced, information in the report is based on data from the January 12, 1999, *World Supply and Demand Estimates*, *Crop Production: 1998 Summary*, and *Grain Stocks* reports.

Grain Market Situation

Grain and Soybeans

Supplies. January estimates for 1998/99 U.S. corn, sorghum, barley, oat, wheat, rye, and soybean production put this year's grain (excluding rice) and soybean crop at 16,120 million bushels. This is up 4 percent from 1997/98 and 13 percent above the 5-year average. It also places this year's production second only to 1994/95 when grain and soybean production totaled 16,147 million bushels. With carry-in stocks totaling 2,473 million bushels and imports projected at 239 million bushels, 1998/99 available grain and soybean supplies are estimated at 18,831 million bushels, their highest level since 1987/88. Current projections put 1998/99 ending stocks at 3,349 million bushels, up 35 percent from last year and at the highest level since 1992/93. If these projections hold, this will be the third straight year in which ending stocks have grown. To find a similarly long period of stock building, it would be necessary to go back to the mid-1980's. Ending stocks, however, during those years were substantially larger, growing from 3,250 million bushels in 1983/84 to 8,370 million bushels in 1986/87.

Grain and soybean production was up in 1998/99 for each of the four major producing regions, which include the Eastern Corn Belt, Western Corn Belt, Central Plains, and Northern Plains (figure 1, table 1). For 1998/99, these four regions accounted for 84 percent of total grain and soybean production. The largest regional increase was in the Northern Plains, where this year's production was up 18 percent from last year. North Dakota and South Dakota led the Northern Plains with increases of 21 and 26 percent, respectively. Western Corn Belt production was up 8 percent, led by gains in Minnesota and Iowa of 18 and 7 percent. In the Central Plains, where production was up 7 percent, Colorado, Nebraska, and Kansas production was up 12, 9, and 2 percent, respectively, from 1997/98. In the Eastern Corn Belt, which accounts for the largest share of the U.S. grain and soybean crop, production was up 3 percent, with Illinois and Indiana production up 4 and 6 percent from last year. Ohio, coming off a record crop in 1997/98, only showed a small increase in production this year.

Use. U.S. grain and soybean use is projected at 15,484 million bushels for 1998/99, up 3 percent from last year and just 167 million bushels below the record in 1994/95. At a projected 11,627 million bushels, this year's domestic use will be an all-time record. Export use is projected at 3,857 million bushels, up 4 percent or 155 million bushels from 1997/98. Domestic use will account for 75 percent of total use this marketing year, virtually the same share as for 1997/98 but higher than the average for the 1980's and so far for the 1990's. Domestic use during the 1980's averaged 67 percent of total use. Domestic use during the 1990's has averaged 73 percent of total use.

December 1 Stocks. Grain and soybean stocks, as of December 1, 1998, were reported at 12,868 million bushels, up 11 percent from a year earlier and 17 percent above the 5-year average for December 1 stocks (table 2). This is the highest level of December 1 stocks since 1987 when December 1 stocks for corn, wheat, and soybeans totaled 14,027 million bushels. On-farm stocks accounted for 58 percent of the total, the same percentage share as for the previous year, but with the overall increase in stocks, this represents an increase of 708 million bushels in on-farm grain and soybean stocks.

December 1 stocks were up in all of the major producing regions with the largest increases in the Western Corn Belt and Northern Plains. In the Western Corn Belt, stocks were up 15 percent from last year and 22 percent above the 5-year average. Minnesota and Iowa led the way with increases of 18 and 15 percent over last year's levels. In the Northern Plains, stocks were up 13 percent over last year and 17 percent above the 5-year average. South Dakota and North Dakota led with stock increases of 20 and 10 percent over last year. In the Eastern Corn Belt, stocks were up 9 percent over last year and 13 percent above the 5-year average. Wisconsin led the region with an increase of 24 percent. Illinois and Indiana also had increases over last year of 12 and 10 percent. In the Central Plains, stocks were up 8 percent over last year and 20 percent above the 5-year average. Nebraska had the largest year-to-year increase at 10 percent. Kansas and Colorado also had increases of 6 percent each. Stocks in the Southern Plains were also up, with Oklahoma reporting a 33 percent increase over last year.

Storage Capacity and Utilization. Despite the lack of widespread rail congestion and service problems that slowed grain shipments during the 1997 harvest, grain storage capacity was short in many growing regions during the 1998 harvest. During the peak of the fall storage and transportation crunch in 1997, USDA's Farm Service Agency (FSA) reported requests for emergency storage in 13 States totaling 93.7 million bushels from facilities that were part of the Uniform Grain and Rice Storage Agreement (UGRSA). Even though the rail service problems that some shippers had feared coming into the 1998 fall harvest failed to materialize, storage capacity was even more in demand this

Figure 1—U.S. grain production regions

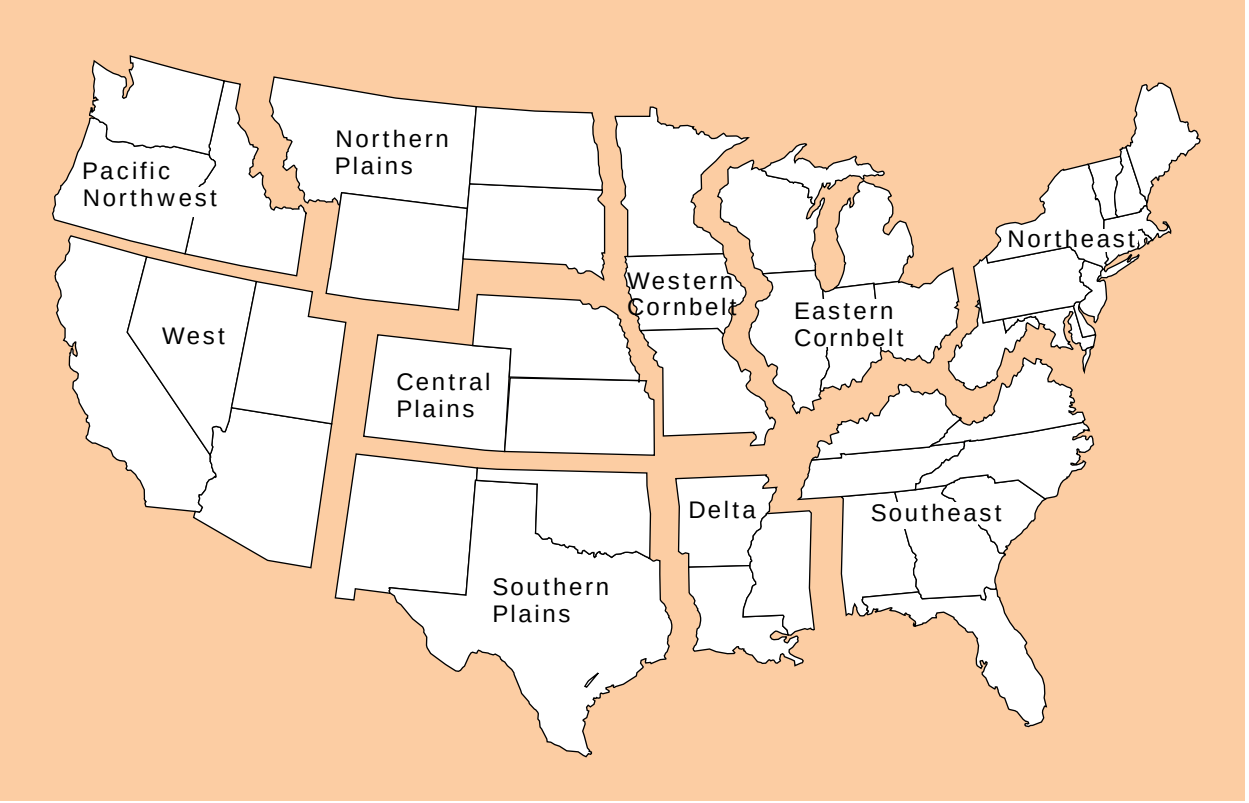


Table 1—U.S. grain and soybean production by region, 1993/94-1998/99

Region	Marketing year						Percent of 1997/98	Percent of 5-yr. avg.
	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99		
	Million bushels							
Northeast	304	375	326	394	341	361	106	104
Southeast	573	795	642	770	703	584	83	84
Delta	286	360	291	475	403	338	84	93
Eastern Corn Belt	3,909	4,999	3,804	4,035	4,493	4,614	103	109
Western Corn Belt	2,095	4,200	3,304	3,981	3,934	4,264	108	122
Southern Plains	722	692	597	649	828	717	87	103
Central Plains	2,087	2,745	2,078	2,767	2,898	3,087	107	123
Northern Plains	1,181	1,448	1,154	1,522	1,325	1,557	118	117
Pacific Northwest	476	405	441	497	478	459	96	100
West	120	128	110	150	143	139	97	107
United States	11,753	16,147	12,747	15,240	15,546	16,120	104	113

Source: USDA-NASS

Table 2—U.S. grain and soybean stocks, December 1, 1993-98

Region	1993	1994	1995	1996	1997	1998	Percent of 1997	Percent of 5-yr. avg.
				Million bushels				
Northeast	156	177	145	164	142	139	98	89
Southeast	287	356	286	296	276	249	90	83
Delta	153	183	146	138	163	146	89	93
Eastern Corn Belt	3,339	4,032	3,149	3,166	3,574	3,902	109	113
Western Corn Belt	2,424	3,691	2,966	3,143	3,285	3,778	115	122
Southern Plains	398	377	311	276	433	451	104	126
Central Plains	1,691	2,072	1,568	2,004	2,088	2,262	108	120
Northern Plains	986	1,099	846	1,017	1,032	1,169	113	117
Pacific Northwest	330	243	250	273	298	291	98	105
West	44	42	38	41	46	57	123	134
Unallocated	261	297	269	268	291	424	145	153
United States	10,069	12,567	9,974	10,786	11,628	12,868	111	117

Source: USDA-NASS

year than last. As recently as the first of January 1999, FSA reported requests for emergency storage in 19 States totaling 213 million bushels for UGRSA facilities.

During 1998, farmers and grain facility operators responded to increasing demand for grain storage. Reported on- and off-farm capacity both showed increases between December 1, 1997 and 1998. During 1998, on-farm storage capacity expanded by 175 million bushels, or 1.6 percent, and off-farm storage capacity expanded by 44 million bushels, or 0.6 percent. Together, total U.S. grain storage capacity increased by 219 million bushels during 1998. This is the first expansion in off-farm capacity since 1987. It also marks the first year on-farm storage capacity has increased after well over a decade of decline.

Overall U.S. grain storage capacity (on- and off-farm) increased by 1 percent during the past year to a total 19,131 million bushels as of December 1, 1998 (table 3). Even with this increase, storage capacity still remains less than that reported as recently as December 1, 1995. Capacity increased in all the major growing regions, as well as in the Delta region. The largest percentage increase was in the Northern Plains where capacity expanded by 3 percent. The largest bushel increase, however, was in the Eastern Corn Belt where capacity increased by 113 million bushels.

Storage utilization, as calculated using the December 1 grain and soybean stocks and reported storage capacity, indicates that the amount of capacity in use nationwide, as of the first of December, was at its highest level in recent years at 67 percent (table 4). As would be expected, the regions with the largest corn production and, subsequently, stocks had the highest amount of capacity in use December 1. The Eastern Corn Belt, Western Corn Belt, and Central plains had utilizations of 77, 76, and 72 percent. Of the three, only the Eastern Corn Belt experienced a higher December 1 utilization during the 5 previous years. In December 1994, Eastern Corn Belt utilization hit 79 percent as the result of the record 1994/95 corn crop.

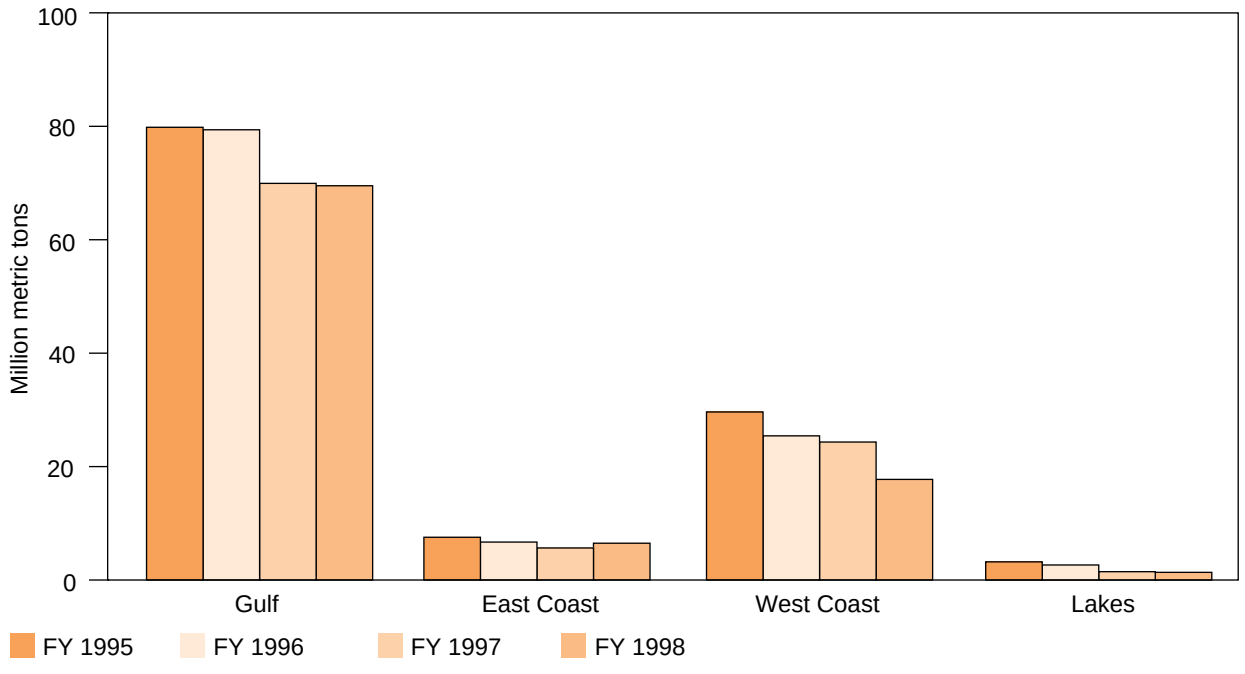
Grain Exports by Region. Over the last several months, sales of major bulk commodities have been modest, with declining export volumes affecting almost all major export points (figure 2). The one notable exception has been in the level of shipments (principally corn) to Mexico. However, large export volumes have not caused transportation bottlenecks at U.S.-Mexico border crossings. Similarly large volumes, combined with border interchange problems in March and April of 1998, resulted in Union Pacific Railroad's (UP) embargo of grain shipments to Mexico through Laredo, Texas.

Table 3—U.S. grain storage capacity, December 1, 1993-98

Region	1993	1994	1995	1996	1997	1998	Percent of 1997	Percent of 5-yr. avg.
				Million bushels				
Northeast	431	399	394	377	378	375	99	95
Southeast	936	915	883	865	841	823	98	93
Delta	564	559	540	531	532	549	103	101
Eastern Corn Belt	5,129	5,115	5,025	4,988	4,986	5,099	102	101
Western Corn Belt	5,143	5,062	5,003	4,891	4,895	4,943	101	99
Southern Plains	1,439	1,368	1,319	1,177	1,098	1,053	96	82
Central Plains	3,214	3,267	3,196	3,134	3,102	3,161	102	99
Northern Plains	2,112	2,091	2,033	2,033	2,015	2,070	103	101
Pacific Northwest	661	645	652	636	633	630	100	98
West	152	142	140	139	140	137	98	96
Unallocated	331	311	281	271	291	291	100	98
United States	20,112	19,874	19,466	19,042	18,911	19,131	101	98

Source: USDA-NASS

Figure 2—U.S. corn, wheat, soybean, and soybean meal fiscal year exports by region



Source: USDA-FAS
Note: Gulf includes Louisiana and Texas ports and overland shipments to Mexico

Table 4—U.S. grain storage capacity utilization, December 1, 1993-98

Region	1993	1994	1995	1996	1997	1998
			Percent			
Northeast	36	44	37	43	37	37
Southeast	31	39	32	34	33	30
Delta	27	33	27	26	31	27
Eastern Corn Belt	65	79	63	63	72	77
Western Corn Belt	47	73	59	64	67	76
Southern Plains	28	28	24	23	39	43
Central Plains	53	63	49	64	67	72
Northern Plains	47	53	42	50	51	56
Pacific Northwest	50	38	38	43	47	46
West	29	29	27	29	33	41
United States	50	63	51	57	61	67

Source: USDA-NASS

Bulk commodity shipments off the West Coast for Fiscal Year 1998 (October-September) were down by one-third from 1997. Exports from East Coast and Great Lakes ports were also down significantly. Shipments from Gulf ports, while below average, were about equal to the previous year. These trends have continued into early 1999.

Exports in coming months are not expected to cause congestion at any of the major export points. Historical buying patterns, however, suggest a significant increase in corn exports to Mexico by rail during March and April. Southern hemisphere corn and soybean harvests will increase competition for U.S. exports by April and May.

Wheat exports are expected to increase in coming months and remain strong because of shipments of donation wheat to Russia and other needy countries. In particular, wheat shipments from Gulf ports should be on the rise, with donation shipments being composed mainly of Hard Red Winter (HRW) wheat, usually exported via Texas ports.

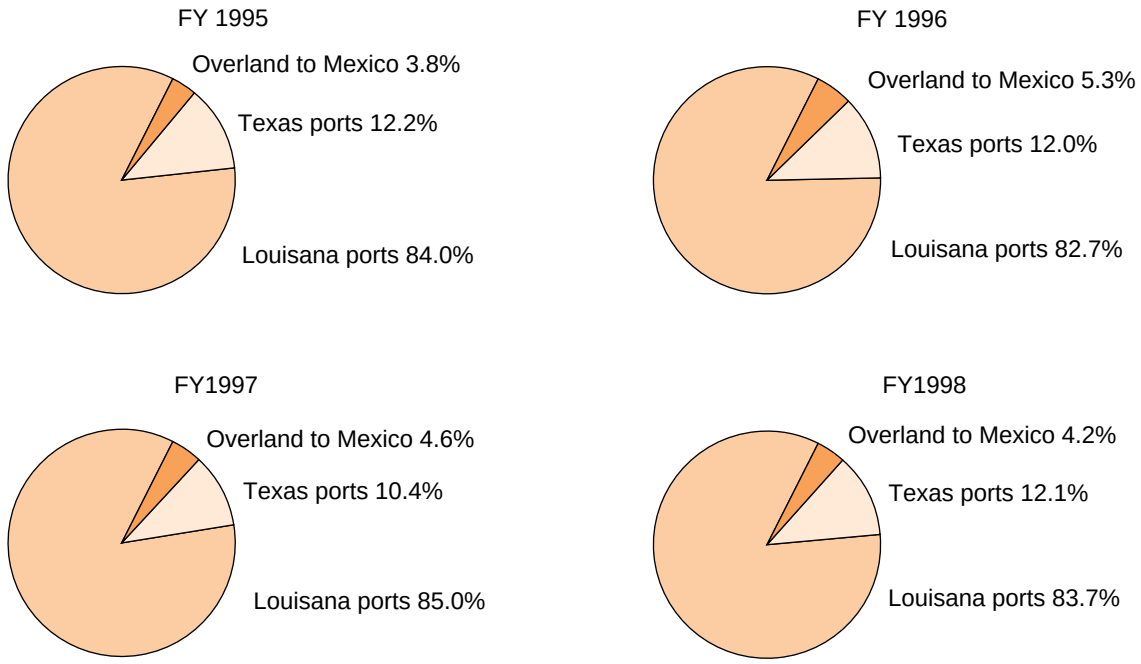
Breakdowns of fiscal year exports of corn, wheat, soybeans, and soybean meal from the Gulf region and to Mexico are provided below for recent years (figures 3-4).

Corn

Supplies. January estimates put U.S. corn production for 1998/99 at 9,761 million bushels, up 6 percent from 1997/98 and just 289 million bushels short of the record 1994 crop, revised this past December to 10,051 million bushels. With beginning stocks (September 1) reported at 1,308 million bushels and imports projected at 10 million bushels, available supplies for 1998/99 are projected at 11,079 million bushels, up 10 percent from 1997/98. Ending year stocks for 1998/99 are projected at 1,809 million bushels, up 38 percent from a year earlier. At the current projected levels, this year's ending stocks will be the largest since 1992/93 and result in the third straight year of stock building from a low of 426 million bushels at the end of the 1995/96 marketing year.

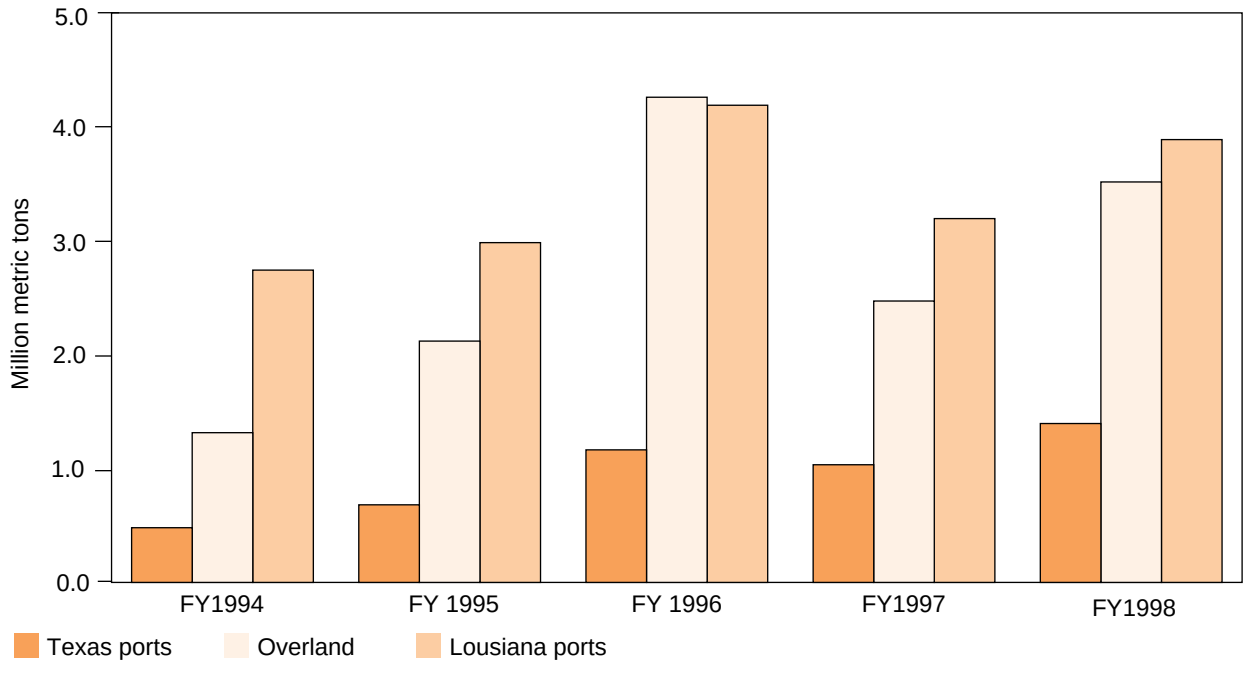
Drought and heat damage reduced this year's corn crops in the Southeast, Delta, and Southern Plains regions (figure 5, table 5). Production, however, was up throughout the Corn Belt and the Central and Northern Plains. Eastern Corn Belt production for 1998/99 was up 2 percent over last year and up 7 percent over the 5-year average. Indiana had the largest percentage increase in production for the region with an 8-percent increase over 1997/98. Illinois production was up 3 percent, while production in Michigan and Ohio was down 11 and 1 percent. Western Corn Belt production was up 11 percent from last year and up 24 percent from the 5-year average. Production in Minnesota and Iowa was up 21 and 8 percent. Central Plains production was up 10 percent from 1997/98 and 26 percent above the 5-year average. Kansas, Nebraska, and Colorado all had increases in corn production (13, 9, and 8 percent). The Northern Plains corn crop was also larger for 1998/99, up 34 percent from the previous year and 58 percent above the region's 5-year average. North Dakota had the largest percentage increase at 51 percent. South Dakota also had a large increase in production amounting to 32 percent. With increases in

Figure 3—U.S. corn, wheat, soybean, and soybean fiscal year meal exports from the gulf



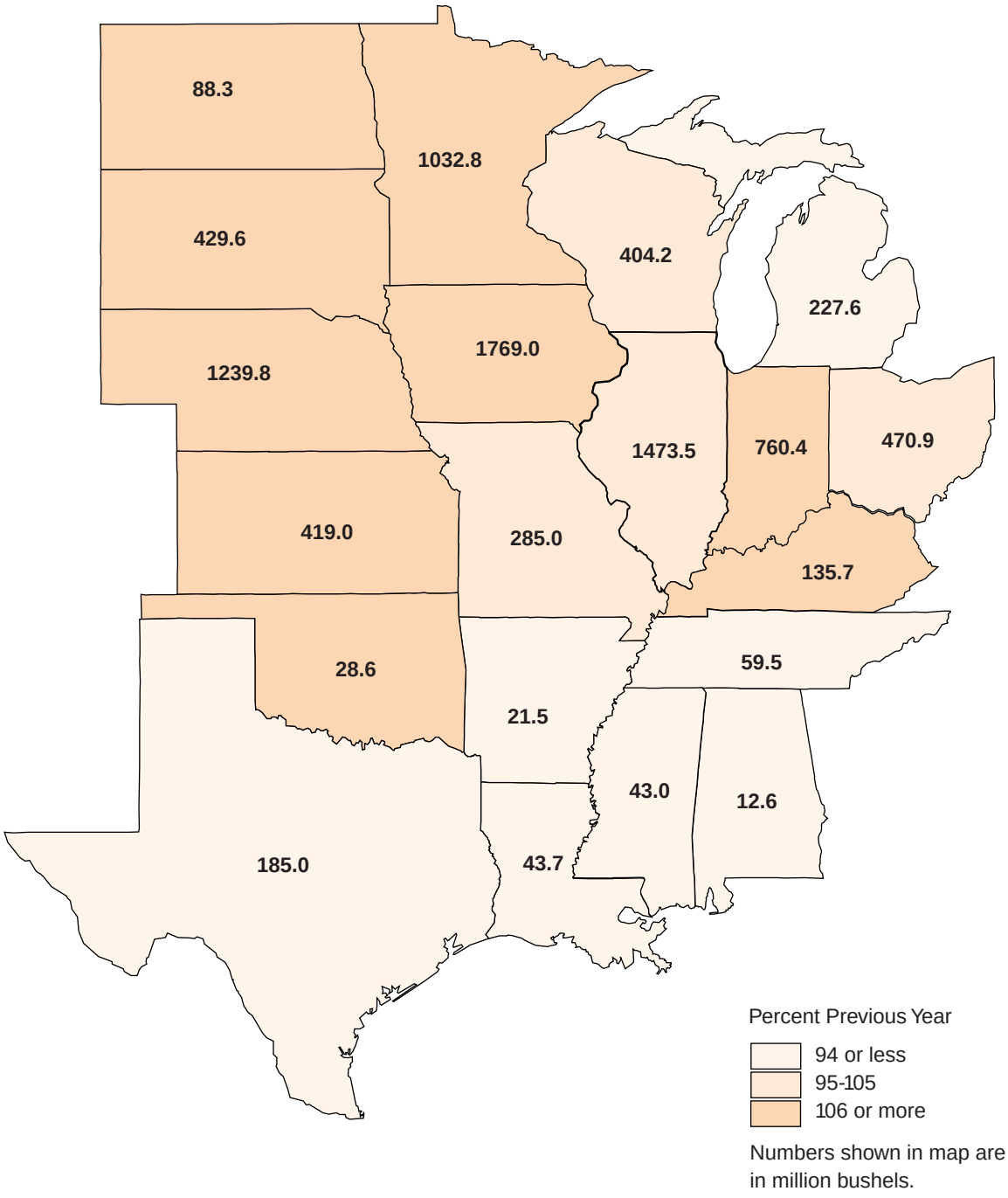
Source: USDA-FAS

Figure 4—U.S. corn, wheat, soybean, and soybean meal fiscal year exports to Mexico



Source: USDA-FAS

Figure 5—U.S. 1998/99 corn production for selected States



Source: USDA-NASS

Table 5—U.S. corn production by region, 1993/94-1998/99

Region	Marketing year						Percent of 1997/98	Percent of 5-yr. avg.
	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99		
	Million bushels							
Northeast	208	268	228	295	232	254	109	103
Southeast	314	457	370	461	395	324	82	81
Delta	43	72	59	155	118	108	92	121
Eastern Corn Belt	2,814	3,824	2,700	2,994	3,260	3,335	102	107
Western Corn Belt	1,369	3,102	2,308	2,920	2,793	3,087	111	124
Southern Plains	242	269	245	238	280	228	81	89
Central Plains	1,108	1,573	1,191	1,663	1,650	1,814	110	126
Northern Plains	183	422	241	428	394	528	134	158
Pacific Northwest	24	28	28	34	30	33	110	116
West	33	36	30	45	55	50	92	127
United States	6,338	10,051	7,400	9,233	9,207	9,761	106	116

Source: USDA-NASS

Montana and Wyoming as well, corn production in the Northern Plains continues to demonstrate the westward and northward expansion of the U.S. corn-growing area.

Use. Total corn use for 1998/99 is projected at 9,270 million bushels, up 5 percent from 1997/98 and just 82 million bushels short of the record in 1994/95 when total use reached 9,352 million bushels. For the first quarter (September-November), corn use totaled 3,022 million bushels, up 177 million bushels from first quarter 1997/98 and 166 million bushels larger than the previous record during the first quarter of 1995/96. Annual domestic use is projected at a record 7,570 million bushels, up 4 percent from last year. During the first quarter both major categories of domestic use, feed and residual use and food, seed, and industrial (FSI) use, were at record levels. Feed use during 1998/99 is expected to remain strong, projected up 4 percent over 1997/98. This increase is expected because of reduced sorghum feeding and lower anticipated wheat feeding in the June-August 1999 quarter. FSI use for 1998/99 is also projected up 5 percent over 1997/98. Export corn use, for the current marketing year, is projected at 1,700 million bushels, up 13 percent from 1997/98. Even at this level, expected exports remain more than 20 percent below their levels in 1994/95 and 1995/96. Outstanding export sales (sold but unshipped) of corn for the current and next marketing years totaled 319.9 million bushels as of January 21, 1999, up 28 percent from last year at this time.

December 1 Stocks. Corn stocks in all positions were reported at 8,050 million bushels for December 1, 1998. This is up 11 percent from a year earlier and 17 percent above the 5-year average (table 6). On-farm stocks accounted for 66 percent of the total, the same percentage share as for the previous year, but with the total increase in corn stocks, this represents an increase of 498 million bushels in on-farm stocks.

Large increases in corn stocks were reported in all of the major growing regions, including the Eastern and Western Corn Belts and the Central and Northern Plains. Together, these four regions accounted for 92 percent of all corn stocks as of December 1. In the Eastern Corn Belt, December 1 stocks were up 7 percent over 1997 and 10 percent above the 5-year average. Wisconsin had the largest percentage increase in December 1 corn stocks with an increase of 19 percent. Illinois and Indiana had increases of 11 and 6 percent. December 1 stocks in Ohio were down 11 percent from a year ago. In the Western Corn Belt, December 1 stocks were up 17 percent over last year and 23 percent above the 5-year average for the region. Minnesota had a 22-percent increase in stocks over last year and Iowa had a 17-percent increase. December 1 stocks in the Central Plains were up 9 percent over 1997 and 24 percent above the 5-year average. Stocks in Colorado, Kansas, and Nebraska were all up 13, 10, and 9 percent over year-ago levels. Northern Plains corn stocks for December 1 were also up 25 percent over last year and 42 percent above the 5-year average. North Dakota and South Dakota had increases of 42 and 22 percent over 1997 levels.

Table 6—U.S. corn stocks, December 1, 1993-98

Region	1993	1994	1995	1996	1997	1998	Percent of 1997	Percent of 5-yr. avg.
				Million bushels				
Northeast	110	128	100	127	91	98	108	89
Southeast	150	186	150	161	142	152	107	97
Delta	23	16	17	15	29	35	120	174
Eastern Corn Belt	2,537	3,080	2,301	2,378	2,688	2,868	107	110
Western Corn Belt	1,673	2,718	2,077	2,300	2,338	2,741	117	123
Southern Plains	122	126	119	104	149	122	82	99
Central Plains	947	1,274	936	1,309	1,311	1,433	109	124
Northern Plains	190	326	209	313	306	382	125	142
Pacific Northwest	13	10	13	10	12	12	100	105
West	10	12	11	13	14	16	107	127
Unallocated	162	204	173	173	167	191	115	109
United States	5,937	8,080	6,106	6,903	7,247	8,050	111	117

Source: USDA-NASS

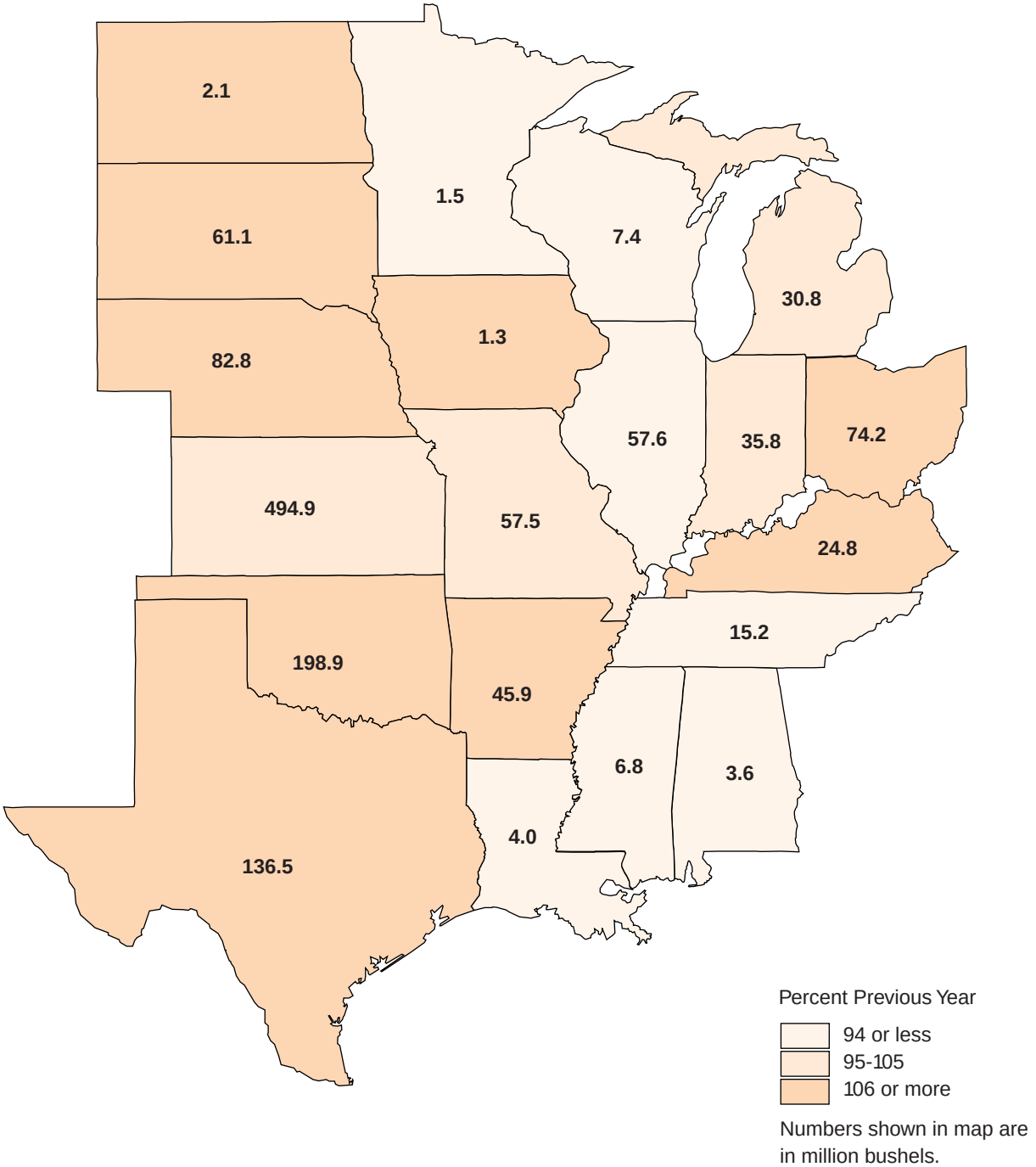
Wheat

Supplies. U.S. production of all wheat, based on the January crop production estimates, totaled 2,550 million bushels for 1998/99. This is up 3 percent from 1997/98 and the largest wheat crop since 1990/91 when production totaled 2,730 million bushels. Beginning stocks (June 1) for 1998/99 were 722 million bushels, up 63 percent from 1997/98 and the largest since 1991/92. With imports projected at 90 million bushels, wheat supply for 1998/99 will total 3,363 million bushels, up 11 percent from 1997/98 and at the highest level since 1987/88. Ending stocks for 1998/99 are projected to grow for the third straight year. At 900 million bushels, this year's ending stocks will be the highest since 1987/88 when ending stocks reached 1,261 million bushels.

HRW wheat production for 1998/99 totaled 1,182 million bushels, up 8 percent from 1997/98. Large carry-in stocks push this year's HRW supplies to 1,490 million bushels, 20 percent above the previous year's level. SRW wheat production for 1998/99 totaled 443 million bushels, down 6 percent from 1997/98. With larger beginning stocks, however, SRW supplies, at 523 million bushels, are actually up from the previous year by 1 percent. White wheat (winter and spring) production was 298 million bushels for 1998/99, down 10 percent from a year earlier. Beginning stocks offset much of this decline in production, leaving available supplies at 396 million bushels, down less than 1 percent from 1997/98. Hard red spring (HRS) wheat production totaled 487 million bushels for 1998/99, down less than 1 percent from the previous year. The smaller crop, however, is more than offset by large carryover stocks. Total HRS supplies for 1998/99 are 762 million bushels, up 7 percent from 1997/98. Durum wheat production for 1998/99 totaled 141 million bushels, up 6 percent from 1997/98. Carry-in stocks for durum were down for 1998/99, but the larger crop put supplies at 193 million bushels, up 30 percent from last year.

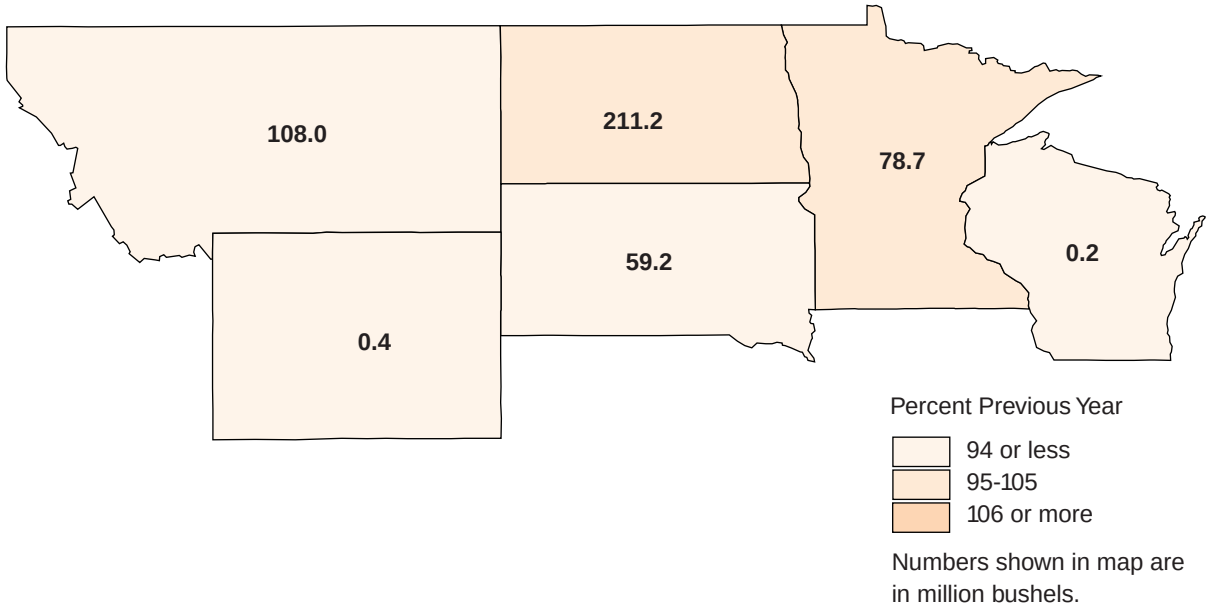
Wheat production for 1998/99 was up throughout the Plains regions (figures 6-7, table 7). The largest increase was in the Southern Plains where 1998/99 production was up 15 percent over 1997/98 and 47 percent above the 5-year average. In the region, Oklahoma and Texas experienced increases of 17 and 15 percent over last year's wheat crops. In the Central Plains, wheat production was up 3 percent over 1997/98 and 27 percent above the 5-year average. Colorado and Nebraska production was up 15 and 18 percent from year-ago levels, while Kansas production fell by 1 percent. Despite an 8-percent reduction in spring wheat in the Northern Plains, total wheat production in that region increased by 9 percent over 1997/98 but fell 4 percent below the 5-year average. Increased production of winter wheat and durum in the Northern Plains, up 21 and 67 percent, respectively, led to the larger wheat crop. The increase in the region's winter wheat production was the result of a 77-percent increase in the South Dakota winter wheat crop. The increase in the region's durum production resulted from a 68-percent increase in the North Dakota durum crop. South Dakota's spring

Figure 6—U.S. 1998/99 winter wheat production for selected States



Source: USDA-NASS

Figure 7—U.S. 1998/99 spring wheat production for selected States



Source: USDA-NASS

Table 7—U.S. wheat production by region, 1993/94-1998/99

Region	Marketing year						Percent of 1997/98	Percent of 5-yr. avg.
	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99		
	Million bushels							
Northeast	28	32	38	34	39	34	88	100
Southeast	99	128	110	117	125	101	81	87
Delta	51	49	56	84	51	57	111	97
Eastern Corn Belt	182	196	227	150	212	206	97	106
Western Corn Belt	125	124	121	157	137	139	102	105
Southern Plains	281	224	188	173	298	343	115	147
Central Plains	559	584	477	404	663	682	103	127
Northern Plains	660	628	595	714	556	607	109	96
Pacific Northwest	353	293	318	367	339	317	94	95
West	58	63	53	77	61	64	106	103
United States	2,396	2,321	2,183	2,277	2,481	2,550	103	109

Source: USDA-NASS

wheat crop, however, was down by 29 percent from 1997/98. Wheat production for 1998/99 was down in both the Eastern Corn Belt and the Pacific Northwest (3 and 4 percent), with production 6 percent above the 5-year average in the Eastern Corn Belt and 5 percent below the 5-year average in the Pacific Northwest.

Use. Total wheat use for 1998/99 is projected at 2,463 million bushels, up 7 percent from 1997/98. HRW use is projected to total 1,096 million bushels in 1998/99, up 17 percent. HRS use is projected to total 544 million bushels in 1998/99, up 10 percent from last year. Most of the year-to-year gain in HRW and HRS use is expected because of increased exports. HRW exports are projected up 38 percent, and HRS exports are projected up 17 percent for 1998/99. White wheat use is projected at 326 million bushels, up 6 percent from 1997/98. SRW wheat use is projected at 373 million bushels, down 21 percent from a year earlier because of a projected 58-percent drop in exports of SRW wheat during 1998/99.

Domestic use of all classes of wheat is projected at 1,363 million bushels, up 8 percent from 1997/98. Anticipated domestic use for the current marketing year is down from earlier forecasts because of lower than expected wheat feeding and reduced wheat seeding during the first 6 months of the marketing year (June-November). Feed and residual use, currently projected at 350 million bushels, is down from earlier projections but up 41 percent over last year. Domestic food use is projected up less than 1 percent for this year for a total of 925 million bushels.

Export wheat use is projected at 1,100 million bushels, up 6 percent over 1997/98. Increased world competition and the lowest level of world wheat trade in 12 years have combined to keep June-November exports 6 percent behind last year's pace. Despite the potential impact of Argentina's maturing wheat crop on competition in the world wheat market, U.S. exports of wheat are expected to be stronger in the final months of the marketing year. Food aid shipments to Russia and other needy countries are expected to move in the coming months. Outstanding export sales (sold but unshipped) of wheat for the current and next marketing years totaled 125.2 million bushels as of January 21, 1999, down 15 percent from last year at this time.

December 1 Stocks. December 1 wheat stocks in all positions were reported at 1,892 million bushels, up 17 percent from a year earlier and 30 percent above the 5-year average (table 8). On-farm stocks accounted for 36 percent of the total, down from 37 percent in 1997, but with the larger December 1 stocks, this still represents an increase of 76 million bushels in the amount of wheat stocks held on farms.

Increases in December 1 wheat stocks were reported in every region except the Pacific Northwest. The three plains regions, which accounted for 64 percent of all wheat production in 1998/99, also account for 64 percent of all wheat stocks as of December 1. The largest increase in stocks was in the Southern Plains where December 1 stocks were up 49 percent over the previous year and 93 percent over the 5-year average. December 1 wheat stocks in Oklahoma and Texas were up 50 and 47 percent over 1997. The Central and Northern Plains also had sizable gains in stocks over 1997 with increases of 17 and 12 percent, respectively. December 1 wheat stocks in the Central Plains were 41 percent above the 5-year average. December 1 stocks in the Northern Plains were 11 percent above the 5-year average. In the Central Plains, Colorado, Kansas, and Nebraska had increases in 1998 stocks of 15, 11, and 50 percent over 1997. In the Northern Plains, South Dakota had the largest increase in stocks with a 34-percent increase over the previous year's level. As a percentage, Eastern Corn Belt wheat stocks were also up substantially, 48 percent over a year ago and 64 percent over the 5-year average. All five States in the region had substantial percentage increases.

Winter Wheat Seedings. The area seeded for the 1999/2000 winter wheat crop is estimated at 43.4 million acres, down 7 percent from 1998/99 and the smallest seeded acreage since 1972. HRW wheat seeded area is estimated at 30.9 million acres, down 5 percent from a year ago. Of the traditional HRW States, Kansas and Oklahoma seeded acreage is estimated to be down 7 and 3 percent, while Nebraska and Texas acreage is estimated to be up 5 and 2 percent. SRW wheat seeded area is estimated at 9 million acres, down 12 percent from last year. Reductions in seeded acres were reported for Arkansas, Illinois, Indiana, Missouri, and Ohio. Reductions were also reported for SRW wheat seeding throughout the southeastern States. White winter (WW) wheat seeded area is also estimated down. At 3.48 million acres, seeded area is 11 percent smaller than last year. Seeded acreage for WW wheat is the lowest since 1962 for Idaho and the lowest since 1988 for Oregon and Washington.

Table 8—U.S. wheat stocks, December 1, 1993-98

Region	1993	1994	1995	1996	1997	1998	Percent of 1997	Percent of 5-yr. avg.
				Million bushels				
Northeast	20	21	24	15	27	27	102	126
Southeast	24	36	29	21	39	41	106	138
Delta	6	22	21	15	26	35	137	193
Eastern Corn Belt	97	127	120	65	116	172	148	164
Western Corn Belt	124	103	100	99	112	121	108	112
Southern Plains	146	155	114	79	173	258	149	193
Central Plains	332	319	278	187	353	414	117	141
Northern Plains	529	489	421	482	472	531	112	111
Pacific Northwest	249	178	189	214	232	220	95	103
West	21	18	19	18	23	35	156	179
Unallocated	38	23	23	24	46	38	83	125
United States	1,586	1,491	1,338	1,219	1,619	1,892	117	130

Source: USDA-NASS

Soybeans

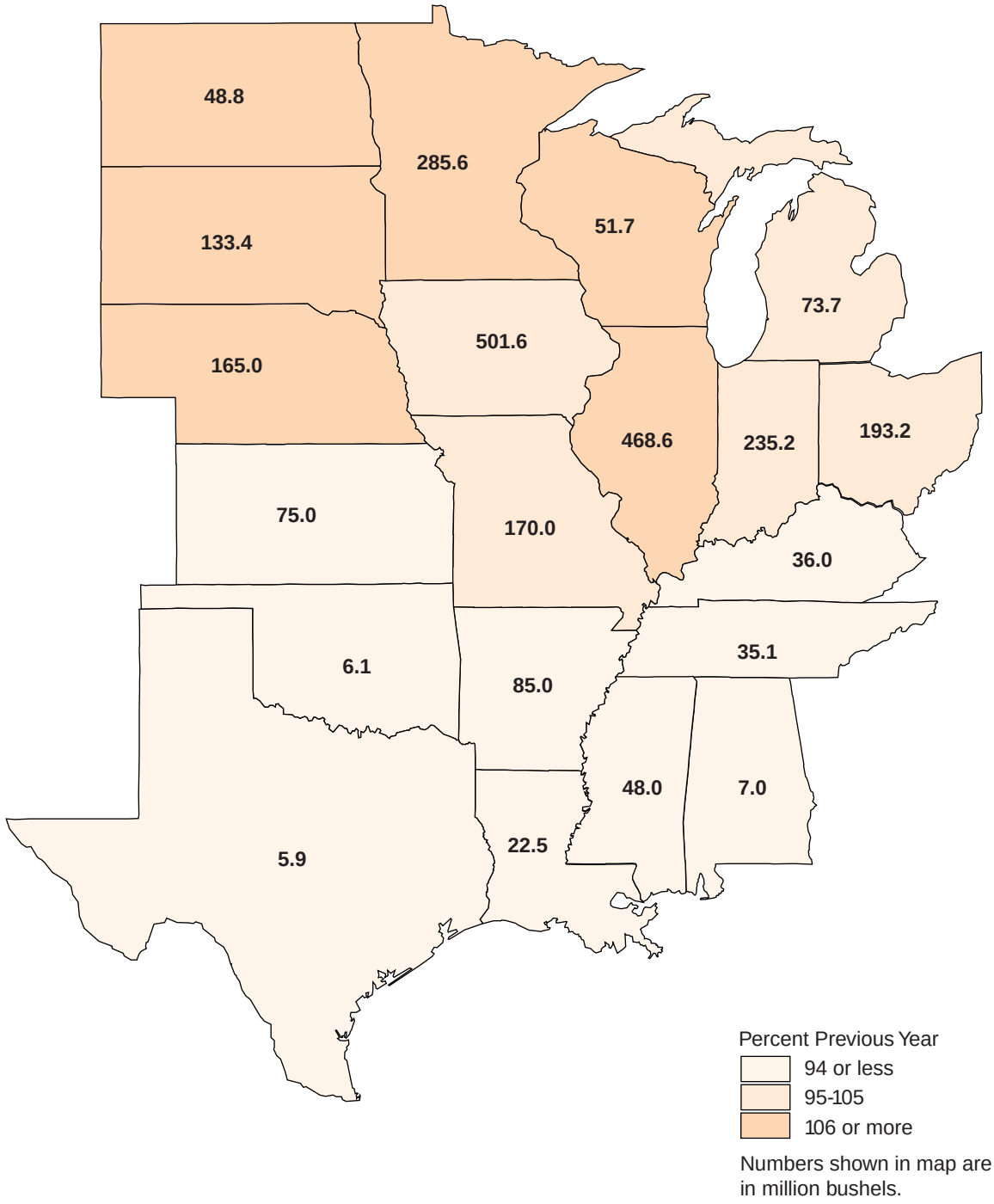
Supplies. U.S. soybean production for 1998/99 was a record 2,757 million bushels. This was a 3-percent increase over 1997/98 production, which was recently revised downward to 2,689 million bushels. With imports projected at 6 million bushels, available supplies for 1998/99 will be a record 2,963 million bushels, up 5 percent from 1997/98. Ending stocks for 1998/99 are projected at 390 million bushels, nearly double the 200 million bushels reported for 1997/98. At this level, soybean ending stocks for 1998/99 would be the largest since 1986/87.

Soybean production increased in all four of the major growing regions for 1998/99, with the largest percentage increases in the Northern Plains (figure 8, table 9). Soybean production for 1998/99 in the Northern plains was up 24 percent over 1997/98 and 77 percent over the 5-year average as soybean acreage, as with corn, continues its westward and northward expansion. Although still a relatively small producer, North Dakota increased its production by 45 percent over the previous year. In the Eastern Corn Belt, where production for 1998/99 was up 6 percent over 1997/98 and 17 percent above the 5-year average, Wisconsin increased its production by 18 percent over last year. Illinois also increased its 1998/99 production by 10 percent over the previous year. Production in the Western Corn Belt was up for 1998/99 by 5 percent and 26 percent above the 5-year average. Minnesota led the region with a 12-percent increase over the previous year. A 15 percent increase in production for Nebraska put Central Plains production up 4 percent from 1997/98 and 27 percent above the 5-year average, despite a 14-percent reduction in Kansas production for 1998/99.

Use. Total soybean use for 1998/99 is projected at 2,573 million bushels, down 2 percent from 1997/98. The 1998/99 domestic crush is projected at 1,595 million bushels, just slightly less than last year's crush of 1,597 million bushels. Despite strong crushing demand during the first 3 months of the marketing year (September-November), crushing demand is expected to weaken during the coming months because of lower meal prices and increased competition from Brazil and Argentina. Although reductions in the hog inventory will also contribute to weakening meal prices, animal numbers should be sufficient to keep domestic meal use growing. Soybean exports are projected at 830 million bushels, down 5 percent from 1997/98. With world soybean imports forecast down 3 percent for 1998/99, few foreign markets beyond China and Mexico are likely to import more soybeans this year than last. Outstanding export sales (sold but unshipped) of soybeans for the current and next marketing years totaled 148 million bushels as of January 21, 1999, down 11 percent from last year at this time.

December 1 Stocks. Soybean stocks in all positions were reported for December 1, 1998, at 2,187 million bushels, up 9 percent from a year earlier and 17 percent above the 5-year average (table 10). On-farm stocks accounted for 54 percent of total soybean stocks, up

Figure 8—U.S. 1998/99 soybean production for selected States



Source: USDA-NASS

Table 9—U.S. soybean production by region, 1993/94-1998/99

Region	Marketing year						Percent of 1997/98	Percent of 5-yr. avg.
	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99		
	Million bushels							
Northeast	36	46	29	41	40	44	111	116
Southeast	134	179	139	170	163	143	88	91
Delta	166	205	152	202	213	155	73	83
Eastern Corn Belt	842	911	821	839	966	1,023	106	117
Western Corn Belt	491	840	775	790	908	958	105	126
Southern Plains	10	16	12	14	21	12	57	82
Central Plains	143	208	152	209	231	240	104	127
Northern Plains	48	110	94	115	147	182	124	177
United States	1,870	2,515	2,174	2,380	2,689	2,757	103	119

Source: USDA-NASS

Table 10—U.S. soybean stocks, December 1, 1993-98

Region	1993	1994	1995	1996	1997	1998	Percent of 1997	Percent of 5-yr. avg.
	Million bushels							
Northeast	11	15	11	15	14	4	32	33
Southeast	109	132	105	112	93	54	58	49
Delta	115	137	104	104	102	73	71	65
Eastern Corn Belt	644	771	687	681	720	824	114	118
Western Corn Belt	495	739	679	646	739	821	111	124
Southern Plains	5	6	7	2	8	5	64	88
Central Plains	128	182	148	160	177	180	102	113
Northern Plains	41	79	65	65	96	91	95	132
Unallocated	26	41	27	40	50	135	271	367
United States	1,574	2,102	1,833	1,825	1,999	2,187	109	117

Source: USDA-NASS

from 52 percent in 1997, and at their highest percentage since 1986. It also represents a year-to-year increase in on-farm soybean stocks of 139 million bushels.

The largest increases in soybean stocks were in the Eastern and Western Corn Belts, which together accounted for 76 percent of total soybean stocks. In the Eastern Corn Belt, December 1 stocks were up 14 percent over 1997 and 18 percent above the 5-year average. Wisconsin and Michigan had the largest percentage increases in December 1 soybean stocks with increases of 42 and 21 percent. Illinois and Indiana had increases of 15 and 14 percent over December 1, 1997. In the Western Corn Belt, December 1 stocks were up 11 percent over last year and 24 percent above the 5-year average for the region. Minnesota had a 16-percent increase in stocks over last year, and Iowa had an 11-percent increase. December 1 stocks in the Central Plains were up 2 percent over 1997, with Nebraska stocks up 8 percent and Kansas stocks down 9 percent over year-ago figures.

Rail Situation

U.S. rail grain demand during the fourth quarter of calendar year 1998 (October-December) was its strongest since fourth quarter 1996. Grain loadings for the fourth quarter totaled 333,500 cars, up 6 percent over fourth quarter 1997 and virtually even with grain carloadings in the fourth quarters of 1995 and 1996. The increase in total fourth quarter carloadings resulted from increased demand for rail transportation on the western U.S. railroads. Fourth quarter grain carloadings on western railroads totaled 222,700, up 11 percent from those in the third quarter and 10 percent over those in fourth quarter 1997. Grain carloadings on the eastern railroads totaled 108,000, up 27 percent from those in the third quarter but virtually even with those from a year earlier. Although rail carloadings for export grain shipment were down from the fourth quarters of the last 3 years, they were only 2 percent below fourth quarter 1997. For 1998, fourth quarter export carloadings, at 88,800, were up 55 percent from those in the third quarter and virtually even with those in the first quarter.

Despite the strong fourth quarter, total grain carloadings for 1998 were down for the third straight year. Grain carloadings on U.S. Class I railroads totaled 1,195,700 during 1998. This was down 1 percent from 1997, 4 percent from 1996, and 12 percent from 1995. While domestic shipments increased for the first time since 1995, export rail shipments, at 286,700 carloads, were down 10 percent from 1997, 18 percent from 1996, and 37 percent from 1995.

Weaker export rail demand during 1998 was largely the result of weaker demand for export grain in the Pacific Northwest (PNW). While export rail shipments to Gulf ports were up substantially for 1998—18 percent for the Louisiana Gulf and 24 percent for the Texas Gulf—rail shipments to the PNW were down 29 percent on the year. Rail shipments to PNW facilities did show some increase during the fourth quarter. Fourth quarter PNW rail shipments were up 46 percent from those in the third quarter but down 35 percent from those during fourth quarter 1997. Weak demand for rail shipments to PNW ports has been driven by weak demand for hard spring wheats from the Northern Plains and corn from the Midwest. Corn export inspections at PNW facilities for 1998 were down 52 percent for the fourth quarter and 57 percent for the year when compared with 1997. Weak demand for export corn in the PNW is in strong contrast to that for U.S. export corn elsewhere. Overall, fourth quarter (October-December) U.S. corn export inspections were up 33 percent over fourth quarter 1997, and, for calendar year 1998, U.S. corn export inspections were down only 2 percent from 1997.

Rail demand for the first quarter of 1999, by all indications, should decline from its level during the fourth quarter fall harvest shipping period. Rail demand appears to have peaked during the first week of December when total weekly rail grain loadings hit 28,994 cars. This coincided with the peak for western railroads that same week at 19,896 carloads but came after the peak for eastern railroads at 9,878 carloads during the last week of October. Weekly grain carloadings for fourth quarter 1998 averaged 25,625. Average weekly grain loadings during the first quarter of 1999 should be down. During fourth quarter 1997, weekly grain loadings averaged 24,106 cars. The following quarter, first quarter 1998, weekly loadings dropped to 23,600. For the first 4 reporting weeks of 1999, grain carloadings averaged 22,944. This is down 10 percent from the fourth quarter 1998 weekly average and 4 percent below the weekly average during the same weeks in the beginning of 1998.

Freight market indicators also suggest rail demand will weaken, as it typically does, during the first quarter of 1999. The closing of the Upper Mississippi River System in early December and the ending of the St. Lawrence Seaway shipping season on December 18 appear to have had little effect on traded freight rates. Guarantees for car service offered by the Burlington Northern Santa Fe Railway (BNSF) and the Union Pacific Railroad (UP) for the first months of 1999 are going unsold in most instances or for bids at or marginally above base tariff rates. Similar guarantees for car service on BNSF, offered in the secondary market, are at discounts of $75-$76 per car for the February-April period. Guaranteed car service on UP in the secondary market is going at discounts of $8-$9 per car for the February-March period. Barge rates are also not showing much demand for early 1999. Southbound barge rates on those segments of the Mississippi and Illinois Rivers which remain open are trading in a range from the lower to middle100 percent of the 1976 benchmark "Tariff No. 7" rates for the February-April period. This, however, is up somewhat from a year ago at this time when southbound barge freight on the same parts of the two rivers was trading in the low 100's.

The normal seasonal pattern for rail demand and the current soft rates in the rail and barge freight markets suggest a general softening in demand for grain transportation during early 1999. Severe storms during the rest of the winter, floods during early spring, and unanticipated regional increases in feeding or export demand, as well as changes in ocean freight rates, could still affect rail service and demand in the coming

weeks. Increases in wheat exports as a result of donation shipments are also expected to add to rail demand.

Railroad Performance Reports. In late 1998, the six U.S. and two Canadian Class I railroads reached agreement with shipper groups to begin the issuance of rail industry performance reports by mid-January 1999. These reports, named "Railroad Performance Measures" (RPM), are a first for such reporting by the industry. RPM reporting began January 14, 1999, on an Association of American Railroads' Internet site (www.railroadpm.org) with links to that site from the sites of the participating railroads. The agreement between the railroads and shipper groups provided for the reporting of weekly information, by railroad, on the number of railcars on line by type of railcar; the average train speed by major category of traffic; the average terminal dwell time for cars in key yards or terminals; and the percentage of instances when movements originated without a bill of lading. In addition, the Surface Transportation Board (STB), in a December 22, 1998, decision terminating selective reporting for BNSF and UP, encouraged all Class I carriers to include grain loading information in their RPM reporting. Most have done so. This new reporting should greatly improve the type and quality of information available to shippers and should ensure that information reported by the various railroads is comparable.

Western Railroads

Rail service in the Western United States has improved markedly since late summer. On July 31, 1998, STB determined that it would not issue further emergency service orders requiring UP to give up traffic to other railroads in and around Houston, Texas. Citing significant improvements in rail service in the Houston area, STB determined it had no basis for continuing the emergency service order initially issued October 31, 1997. STB, however, did require UP to continue reporting data that would allow monitoring of system performance and service conditions on the railroad and BNSF to continue to report on its grain loadings.

Grain shippers, during the past fall, appear not to have been affected by any significant rail transportation problems. Ground piling of grain during the fall was not the result of transportation shortages or congestion but, rather, the result of large crops, worldwide economic problems, and increased competition for U.S. grain in world markets. On December 22, 1998, STB determined that rail service in the West had again improved significantly subsequent to the termination of its emergency service order at the end of July. As a result of this, and the decision by U.S. and Canadian Class I railroads to voluntarily issue weekly performance reports via the RPM system starting in January 1999, STB discontinued its reporting requirements on UP and BNSF with the submission of their final reports in January 1999.

Key RPM data related to rail grain transportation were selected for inclusion in this report. That information is summarized below for the western railroads (tables 11-12). At the time of publication, baseline measures for comparison were not being reported; however, the tables list the selected measures for the 2 most recent weeks.

Burlington Northern Santa Fe Railway. Grain carloadings on BNSF were up 7 percent during the fourth quarter of 1998 as compared to the same period in 1997. Grain carloadings for the fourth quarter averaged 9,148 cars per week, up from an average of 8,152 cars per week during the third quarter. Grain transportation demand was especially strong on BNSF during the first 3 weeks of December when grain carloadings averaged 10,507. BNSF grain demand for 1998 peaked during the first week of December when carloadings hit 11,473. For the 2-week period ending January 15, 1999, BNSF reported its grain loadings up from the previous 2-week period, which included the Christmas and New Years holidays, but still down from early December. Nebraska accounted for the largest share of BNSF grain loadings with 19 percent of the total, followed by North Dakota with 15 percent, Montana with 13 percent, South Dakota with 12 percent, Minnesota with 11 percent, and Kansas with 9 percent.

As of January 23, BNSF reported its active grain fleet at 33,153 cars, with 18,603 (56 percent) loaded and in the "pipeline." This is down 3 percent from October 18, 1998, when BNSF reported its active grain fleet at 34,105 cars, with 19,635 (58 percent) loaded and in the "pipeline." It is also down from BNSF's peak fourth quarter fleet of 34,888 covered hoppers reported for the week ending December 12, 1998. Requests for grain cars under all service programs totaled 41,987 for January, down 14 percent from December and 22 percent from October when all requests totaled 53,955 cars. BNSF reports its systemwide total cycle time for grain cars at 20.90 days for the week ending January 23. This is up from 18.30 days for the week ending December 12, 1998, during the peak of its shipping demand. It is down substantially, however, from the 29.18 days reported November 21, 1997, during the western rail service problems. As of January 26, BNSF reported past-due car orders totaling 3,026 cars, with

Table 11—Rail freight cars on line and train speeds for western railroads

	Burlington Northern Santa Fe Railway		Kansas City Southern Lines		Union Pacific Railroad	
	Jan. 22, 1999	Jan. 15, 1999	Jan. 22, 1999	Jan. 15, 1999	Jan. 22, 1999	Jan. 15, 1999
	number of railcars					
Railcars on line:						
Covered hoppers	65,375	65,735	7,303	5,353	102,966	103,526
All railcars	210,793	212,204	34,526	33,755	313,231	316,697
	miles per hour					
Average train speed:						
Grain trains	20.2	20.1	20.1	20.7	23.1	22.9
All trains	24.2	23.7	24.8	- n.a. -	25.0	24.3

Notes: The number of cars on line is a weekly average of the inventory of railroad and privately owned freight cars on each railroad's system. Average train speed is calculated by dividing train-miles by hours operated for the line-haul portion of the movement and excludes time spent in terminals (dwell time). For additional information or specific definitions for individual railroads see www.railroadpm.org. "n.a." indicates data were not available.
Source: Association of American Railroads, Railroad Performance Measures

Table 12—Average dwell times for selected terminals on western railroads

Selected terminal/ City and State	Burlington Northern Santa Fe Railway		Kansas City Southern Lines		Union Pacific Railroad	
	Jan. 22, 1999	Jan. 15, 1999	Jan. 22, 1999	Jan. 15, 1999	Jan. 22, 1999	Jan. 15, 1999
	hours					
Barstow, California	28.0	30.0				
Fort Worth, Texas	25.0	23.0				
Fort Worth-Centennial, Texas					37.8	39.7
Houston, Texas	16.0	15.0				
Houston-Englewood, Texas					43.4	39.4
Houston-Settegast, Texas					37.5	35.0
Kansas City, Kansas			16.0	17.0		
Kansas City-Argentine, Kansas	28.0	33.0				
Kansas City-Neff, Missouri					29.5	36.8
Minn./St. Paul-Northtown, Minnesota	33.0	37.0				
North Platte-East, Nebraska					35.1	37.9
North Platte-West, Nebraska					25.8	31.6
Pasco, Washington	24.0	25.0				
Roseville, California					30.2	28.6
Shreveport, Louisiana			30.0	27.0		

Notes: Dwell time is the total time, on average, that a car spends at a terminal location. A terminal can be a single or multiple yard facility. Terminal locations are unique to each railroad, subsequently dwell times for each facility exist only for that operating railroad. For information on additional terminals and specific definitions for individual railroads see www.railroadpm.org.
Source: Association of American Railroads, Railroad Performance Measures

the average past-due order 6.3 days late. This is down from 1 month earlier (December 22) when past-due car orders totaled 6,313 cars, with the average past-due order 6.2 days late. Past-due orders, since the beginning of September, peaked during the week ending October 20, 1998, at 15,876 cars, with the average past-due order 9.1 days late. The substantial drop in car orders over the past 3 months, along with the large decline in past-due orders, has allowed BNSF to reduce its grain car fleet and grain car velocities without adversely affecting service.

Kansas City Southern Lines. Fourth quarter 1998 grain carloadings on the Kansas City Southern Lines (KCS) were virtually even with those during fourth quarter 1997 and up substantially from fourth quarter 1996 and 1995 (13 and 43 percent). Weekly grain carloadings averaged 721 cars during the fourth quarter. Fourth quarter grain demand peaked on KCS during October when loadings averaged 800 per week, falling to an average of 647 per week during the first 3 weeks of December. KCS reports its grain car fleet at 3,609 covered hoppers, as of January 25, 1999. Of this fleet, 600 cars were reported in service to processors and 2,396 cars in guaranteed service programs. Outstanding orders for grain cars totaled 3,358 for the 4-week period beginning January 18, up from 4 weeks earlier when grain car orders totaled 774.

Union Pacific Railroad. Grain carloadings on UP were up 15 percent for the fourth quarter, compared to the fourth quarter of 1997. This increase is the result of service improvements on UP during the last half of 1998. It is also the result of the substantial decreases in traffic experienced by UP during the last half of 1997 when UP's takeover of Southern Pacific Railroad (SP) operations brought rail traffic in the Western United States practically to a standstill. Fourth quarter grain carloadings on the combined systems of the UP and SP during fourth quarter 1995 and 1996 were 10 and 21 percent higher, respectively, than during fourth quarter 1998. Weekly grain carloadings on UP for fourth quarter 1998 averaged 7,256 cars per week, up 9 percent from the third quarter. For the week ending January 15, 1999, UP reported its highest weekly grain carloadings since early December with 28 percent in Nebraska, 22 percent in Iowa, and 20 percent in Kansas.

For the week ending January 15, UP reported its grain car velocity for Nebraska to the PNW at 5.7 days and for Kansas to the Texas Gulf at 7.0 days. Shipment times for grain moving to the PNW and Texas Gulf for the same week in 1998 were 10.6 and 14.0 days. During the peak of the service problems in early October 1997, UP reported shipment times to the PNW and Texas Gulf at 15.5 and 14.8 days.

Eastern Railroads

The biggest issue facing eastern rail shippers and railroads in the coming months is the pending "carve-up" of Conrail (CR) by CSX Transportation (CSX) and Norfolk Southern (NS). The merger of CR operations into the two acquiring railroads is expected to occur on June 1, 1999. Overall, the CR breakup should bring some important long-term changes in the way agricultural products are sourced and routed for the southeastern feeding and processing markets. Midwest farmers and grain processors in areas formerly served only by CR will have an expanded reach into southern markets for their grain and grain products. The expanded operations of CSX and NS will also provide new opportunities for single-line service, potentially reducing transit times and service variability for many agricultural shippers.

The transition that will occur as CR operations are divided among CSX and NS will be interesting, particularly in terms of how it will affect rail service during the switchover phase of the merger. In addition to the reporting requirements placed on CSX and NS by STB as a condition of the merger's approval, the new rail industry performance reports will provide shippers with a useful system to track potential service issues that may arise during the switchover. A selected summary of RPM data for the eastern railroads is provided below (tables 13-14).

CSX Transportation. Fourth quarter 1998 grain carloadings on CSX were up 3 percent, compared to fourth quarter 1997. Weekly fourth quarter carloadings averaged 2,976, up from an average of 1,958 cars per week during the third quarter. Grain demand on CSX was the strongest in October and early November when loadings averaged more than 3,300 cars per week. Since weekly loadings peaked November 7, 1998, at 3,731 carloads—the highest level since November 1990—grain demand appears to have weakened on CSX.

As of January 18, 1999, CSX reported its fleet of cars in grain service at 5,600, or 65 percent of its jumbo covered hopper fleet. Its grain fleet peaked in November at 6,400 cars, or 75 percent of its covered hopper fleet. CSX currently projects that it will further reduce its fleet to 4,800 cars for March and April, a clear indication that CSX expects further seasonal declines in grain demand on its system. As of January

Table 13—Rail freight cars on line and train speeds for eastern railroads

	CSX Transportation		Illinois Central		Norfolk Southern	
	Jan. 22, 1999	Jan. 15, 1999	Jan. 22, 1999	Jan. 15, 1999	Jan. 22, 1999	Jan. 15, 1999
	number of railcars					
Railcars on line:						
Covered hoppers	49,121	48,935	11,250	11,207	32,225	31,162
All railcars	199,448	198,895	32,564	32,649	148,866	149,612
	miles per hour					
Average train speed:						
Grain trains	18.8	15.8	20.6	19.8	19.0	15.9
All trains	18.9	18.4	22.0	22.1	15.6	15.9

Notes: The number of cars on line for CSX and IC is a weekly average of the inventory of railroad and privately owned railcars on each system. The number of cars on line for NS is the inventory of railroad and privately owned freight cars on the NS system on each Wednesday. Average train speed is calculated by dividing train-miles by hours operated for the line-haul portion of the movement and excludes time spent in terminals (dwell time). For additional information or specific definitions for individual railroads see www.railroadpm.org.
Source: Association of American Railroads, Railroad Performance Measures

Table 14—Average dwell times for selected terminals on eastern railroads

	CSX Transportation		Illinois Central		Norfolk Southern	
	Jan. 22, 1999	Jan. 15, 1999	Jan. 22, 1999	Jan. 15, 1999	Jan. 22, 1999	Jan. 15, 1999
	hours					
Chattanooga, Tennessee					29.6	23.3
Cincinnatti, Ohio	31.5	32.3				
Columbus, Ohio					17.5	12.7
Corbin, Kentucky	13.3	18.5				
Hamlet, North Carolina	27.7	30.6				
Knoxville, Tennessee					32.7	32.7
Linwood, North Carolina					26.9	29.5
Louisville, Kentucky	37.2	41.2				
Macon, Georgia					26.1	27.5
Memphis, Tennessee			10.5	13.5		
Nashville, Tennessee	34.8	30.8				

Notes: Dwell time is the total time, on average, that a car spends at a terminal location. A terminal can be a single or multiple yard facility. Terminal locations are unique to each railroad, subsequently dwell times for each facility exist only for that operating railroad. For information on additional terminals and specific definitions for individual railroads see www.railroadpm.org.
Source: Association of American Railroads, Railroad Performance Measures

18, CSX reported that 90 percent of its grain car orders were filled, up substantially from November 2, 1998, when it reported 59 percent of its grain orders filled. Average total cycle time for grain cars on CSX was reported at 28 days for early January, the same as for December, but up from 24 days for October and November.

Illinois Central. Grain carloadings for fourth quarter 1998 on Illinois Central (IC) were down 10 percent over fourth quarter 1997. Weekly grain carloadings averaged 1,526 during the fourth quarter, down from a weekly average of 1,534 cars during the third quarter. Demand for grain cars on IC weakened in the fourth quarter after early October, despite the ongoing harvest of the large 1998 corn and soybean crops. As of January 24, 1999, IC reported a grain fleet of 4,246 covered hoppers. This is up from early October when it reported its grain fleet at 4,095 cars. For the 4-week period beginning January 17, IC reports grain car orders totaling 1,403. This is up substantially from the 4-week period beginning December 13, 1998, when IC reported grain car orders totaling 799 cars. IC's fleet expansion and its recent increases in car orders reflect increasing demand for southbound export rail shipments resulting from the closing of the upper portions of the Mississippi River and icing problems on the Illinois River.

Norfolk Southern. Fourth quarter 1998 grain carloadings on NS were down 2 percent over the same quarter in 1997. Weekly loadings for the fourth quarter averaged 2,804 cars, up 24 percent from the third quarter average of 2,261 cars per week. NS reported its covered hopper fleet available for grain loading at 5,068 for the period ending December 1998. This is down 10 percent from early November 1998. For December, NS reported its fleet utilization, in trips per month, at 1.56 for grain unit trains and .99 for general distribution cars. This compares with 1.58 for grain unit trains and 1.23 for general distribution cars during late October and early November. Of total December grain loadings, 40 percent originated in Indiana, 32 percent in Ohio, and 18 percent in Illinois. For the 30 days ending November 8, Indiana accounted for 42 percent, Ohio 32 percent, and Illinois 16 percent of total NS grain loadings.

Additional Sources of Information

More detailed information on grain and oilseed production and stocks is available from the National Agricultural Statistics Service in:

Crop Production,
http://jan.mannlib.cornell.edu/reports/nassr/field/pcp-bb/

Grain Stocks,
http://jan.mannlib.cornell.edu/reports/nassr/field/pgs-bb/

Small Grains Summary,
http://jan.mannlib.cornell.edu/reports/nassr/field/pcp-bbs .

More detailed information on grain and oilseed supplies and use is available from the Economic Research Service in:

Feed Outlook,
http://usda.mannlib.cornell.edu/reports/erssor/field/fds-bb/

Wheat Outlook,
http://usda.mannlib.cornell.edu/reports/erssor/field/whs-bb/

Oil Crops Outlook,
http://usda.mannlib.cornell.edu/reports/erssor/field/ocs-bb/ .

The latest and most detailed grain and oilseed supply and demand information is available from the World Agricultural Outlook Board in:

World Agricultural Supply and Demand Estimates,
http://www.usda.gov/oce/waob/wasde/wasde.htm .

More detailed information on grain and oilseed exports, trade, and outstanding sales is available from the Foreign Agricultural Service in:

Grains: World Markets and Trade,
http://www.fas.usda.gov/grain/circular/1998/98-08/graintoc.htm

Oilseeds: World Markets and Trade,
http://www.fas.usda.gov/oilseeds/circular/1998/98-08/toc.htm

Export Sales, http://www.fas.usda.gov/export-sales/esrd1.html .

For additional information on grain and rail transportation see:

USDA-AMS, *Grain Transportation,*
http://www.ams.usda.gov/tmd/grain.htm

U.S. Surface Transportation Board,
http://www.stb.dot.gov

Association of American Railroads, http://www.aar.org

Burlington Northern Santa Fe, http://www.bnsf.com

CSX Transportation, http://www.csx.com

Illinois Central, http://www.icrr.com

Kansas City Southern, http://www.kcsi.com

Norfolk Southern, http://www.nscorp.com

Union Pacific, http://www.up.com .