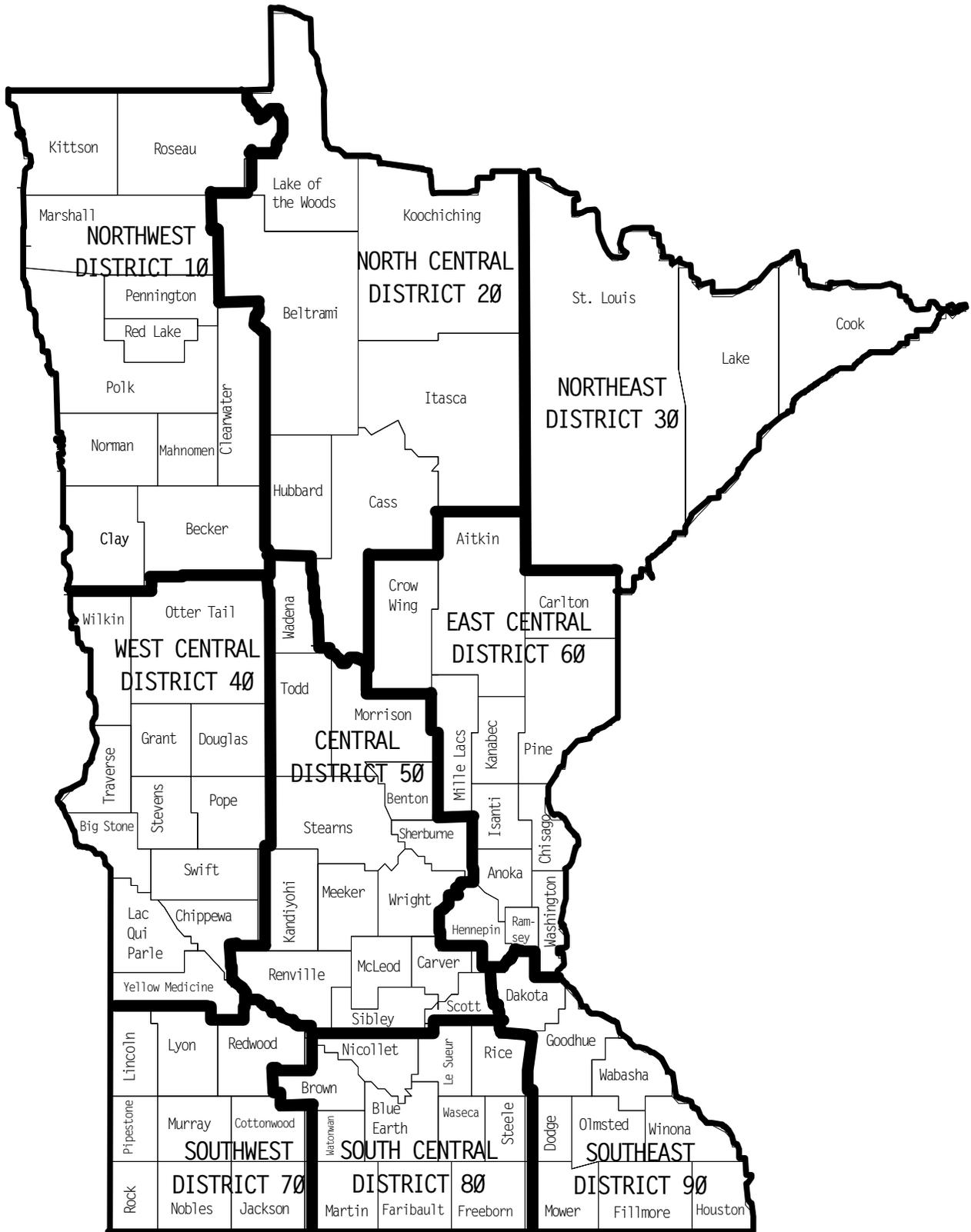


# MINNESOTA'S AGRICULTURAL STATISTICS DISTRICTS



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# Minnesota Agricultural Statistics 2004

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## Foreword

Over the years, I've frequently talked with Minnesota farmers about the importance of continually looking for new ways to do things more efficiently and effectively. It's not enough to continue running a business the same way it's been run for decades. Times change, markets change, and in order to stay relevant, farmers need to keep pace just like any other small business operators.

To run a business effectively, you need current and accurate information. This allows you to make sound production and marketing decisions that will pay off in the long run. Publications such as this *Minnesota Agricultural Statistics* book and the *Census of Agriculture* help give all of us better insight into agricultural trends. Estimates of crop and livestock production, farm income and expenses, farm numbers and land in farms, and many others, help the entire agricultural community plan for the future of Minnesota agriculture.

I want to express my gratitude to all the farmers and agribusinesses that made this book possible by responding to surveys conducted by the Minnesota Agricultural Statistics Service.



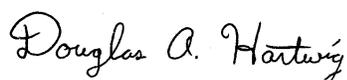
*Gene Hugoson, Commissioner  
Minnesota Department of Agriculture*



On behalf of the staff in the Minnesota office of the National Agricultural Statistics Service, I am proud to present the "Minnesota Agricultural Statistics 2004". The agricultural data in this book provides the facts on which sound decisions can be based in promotion of Minnesota agriculture. It is through the cooperative efforts and funding by the United States Department of Agriculture's National Agricultural Statistics Service, and the Minnesota Department of Agriculture that we are able to produce this publication.

Many thanks go out to the Minnesota producers, agribusiness people, County Farm Service Agency and Natural Resources Conservation Service staff and University of Minnesota Extension Service personnel who voluntarily provide the data presented in this annual bulletin. We count agriculture because "Agriculture Counts" in Minnesota and the United States.

If you need more information, e-mail us at [nass-mn@nass.usda.gov](mailto:nass-mn@nass.usda.gov) or call us at 1-800-453-7502. You can also find all of our data on our web site at [www.nass.usda.gov/mn/](http://www.nass.usda.gov/mn/).



*Douglas A. Hartwig, Director  
Minnesota Agricultural Statistics*

## STATE RANKINGS: Minnesota's Rank Among States 1/

Item	1	2	3	4	5	6	7	8	9	10
<b>Cash Receipts, 2002</b>										
Total	CA	TX	IA	NE	KS	IL	<b>MN</b>	FL	NC	WI
Livestock & Livestock Products	TX	CA	NE	KS	IA	NC	WI	<b>MN</b>	CO	AR
Crops	CA	IL	IA	FL	TX	<b>MN</b>	NE	WA	IN	NC
<b>Crop Production, 2003</b>										
Corn	IA	IL	NE	<b>MN</b>	IN	OH	SD	WI	MO	KS
Soybeans	IL	IA	<b>MN</b>	IN	NE	OH	MO	SD	AR	ND
All Wheat	KS	ND	OK	WA	MT	SD	<b>MN</b>	TX	ID	NE
Spring Wheat	ND	<b>MN</b>	MT	SD	ID	WA	OR	CO	UT	NV
Oats	ND	<b>MN</b>	SD	WI	IA	NE	PA	TX	MI	KS
Barley	ND	ID	MT	WA	<b>MN</b>	CO	WY	PA	OR	CA
All Sunflowers	ND	SD	KS	<b>MN</b>	CO	TX	NE			
Dry Edible Beans	ND	NE	MI	<b>MN</b>	ID	CA	CO	WY	WA	TX
All Hay	TX	CA	MO	NE	SD	KS	KY	IA	<b>MN</b>	OK
All Potatoes	ID	WA	WI	ND	CO	<b>MN</b>	OR	CA	ME	MI
Sugarbeets	<b>MN</b>	ID	ND	MI	CA	MT	NE	WY	CO	OR
Flaxseed	ND	MT	<b>MN</b>	SD						
Canola	ND	<b>MN</b>								
Sweet Corn for Processing	<b>MN</b>	WA	WI	OR	NY	DE	MD	PA		
Green Peas for Processing	<b>MN</b>	WA	WI	OR	NY	DE				
Cultivated Wild Rice 2/	CA	<b>MN</b>								
<b>Livestock, Dairy, Poultry</b>										
Red Meat Production, 2003	NE	IA	KS	TX	IL	<b>MN</b>	NC	CO	CA	IN
Cattle/Calves, January 1, 2004 3/	TX	KS	NE	CA	OK	MO	SD	IA	WI	<b>MN</b>
Milk Cows, January 1, 2004	CA	WI	NY	PA	<b>MN</b>	ID	NM	TX	MI	OH
Cattle/Calves Marketed, 2003 4/	TX	NE	KS	OK	CO	CA	IA	SD	MO	MT
Cattle/Calves on Feed, Jan 1, 2004	TX	KS	NE	CO	IA	CA	SD	OK	<b>MN</b>	ID
Hogs & Pigs, December 1, 2003	IA	NC	<b>MN</b>	IL	IN	MO	NE	OK	KS	OH
Pig Crop, 2003	NC	IA	<b>MN</b>	IL	NE	OK	MO	IN	KS	OH
Hogs Marketed, 2003	IA	NC	<b>MN</b>	IL	MO	NE	IN	OK	SD	KS
All Sheep & Lambs, Jan 1, 2004 5/	TX	CA	WY	SD	CO	MT	UT	ID	IA	OR
Lamb Crop, 2003 6/	TX	WY	SD	MT	CA	ID	UT	IA	CO	OR
All Chickens, December 1, 2003	IA	OH	GA	PA	IN	TX	CA	AR	NC	<b>MN</b>
Eggs Produced, Dec 2002-Nov 2003	IA	OH	PA	IN	CA	GA	TX	AR	NE	<b>MN</b>
Turkeys Raised, 2003 7/	<b>MN</b>	NC	AR	MO	VA	CA	SC	IN	PA	IA
Milk Production, 2003	CA	WI	NY	PA	ID	<b>MN</b>	NM	MI	TX	WA
<b>Dairy Products Manufactured, 2003</b>										
Total Cheese	WI	CA	NY	<b>MN</b>	PA	OH	IA	SD	MO	IL
American Cheese	WI	CA	<b>MN</b>	ID	IA	OR	NY	SD	OH	
Ice Cream	CA	IN	TX	PA	IL	<b>MN</b>	NY	OH	NC	FL
Mink Pelts Produced, 2002	WI	UT	OR	<b>MN</b>	ID	IA	WA	SD	OH	MI
Honey Produced, 2003	CA	ND	FL	SD	<b>MN</b>	MT	TX	WI	NY	MI
<b>Agricultural Exports, Fiscal Year 2002</b>										
	CA	IL	IA	NE	KS	TX	<b>MN</b>	ND	WA	IN

1/ Rankings based on published data.

2/ Source: Minnesota Cultivated Wild Rice Council.

3/ Minnesota ranks 10<sup>th</sup>, tied with CO and MT.4/ Minnesota ranks 16<sup>th</sup>.5/ Minnesota ranks 12<sup>th</sup>, tied with OH.6/ Minnesota ranks 11<sup>th</sup>, ID and UT tied for 6<sup>th</sup>.7/ AR and MO tied for 3<sup>rd</sup>.

**COUNTY RANKINGS: Minnesota's Leading Agricultural Counties**

Item	1	2	3	4	5	6	7	8	9	10
<b>2002 Cash 1/ Farm Receipts</b>										
Total	Stearns	Renville	Martin	Kandiyohi	Otter Tail	Redwood	Blue Earth	Polk	Nobles	Mower
Crops	Renville	Polk	Redwood	Faribault	Clay	Mower	Martin	Freeborn	Marshall	Wilkin
Livestock	Stearns	Kandiyohi	Martin	Morrison	Otter Tail	Renville	Blue Earth	Nobles	Redwood	Rock
Government Payments	Polk	Marshall	Stearns	Otter Tail	Roseau	Kittson	Renville	Redwood	Kandiyohi	Mower
<b>2003 Crop Production</b>										
Corn for Grain	Renville	Martin	Redwood	Faribault	Blue Earth	Freeborn	Jackson	Nobles	Yellow Medicine	Cottonwood
Soybeans	Polk	Redwood	Renville	Martin	Nobles	Jackson	Faribault	Murray	Blue Earth	Yellow Medicine
All Wheat	Polk	Marshall	Kittson	Clay	Norman	Wilkin	Roseau	Pennington	Otter Tail	Becker
Oats	Stearns	Otter Tail	Roseau	Fillmore	Wabasha	Todd	Kittson	Marshall	Winona	Morrison
Barley	Marshall	Roseau	Polk	Norman	Pennington	Kittson	Clay	Mahnomen	Red Lake	Stearns
Sunflowers	Marshall	Roseau	Norman	Kittson	Polk	Wilkin	Clay	Pennington	Otter Tail	Red Lake
Sugarbeets	Polk	Clay	Wilkin	Norman	Renville	Marshall	Chippewa	Kittson	Kandiyohi	Grant
Canola	Roseau	Marshall	Lake of the Woods	Kittson	Pennington					
Flaxseed	Roseau									
Dry Edible Beans	Polk	Otter Tail	Marshall	Hubbard	Renville	Kandiyohi	Morrison	Chippewa	Clay	Wadena
All Hay	Stearns	Otter Tail	Fillmore	Winona	Morrison	Todd	Wabasha	Houston	Roseau	Goodhue
Potatoes 2/	Sherburne	Polk	Morrison	Benton	Todd	Freeborn	Clay	Marshall	Kittson	Red Lake
Green Peas 3/	Renville	Brown	Dakota	Mower	Olmsted	Sibley	Redwood	Steele	Goodhue	Wabasha
Sweet Corn	Renville	Brown	Freeborn	Sibley	Steele	Redwood	Mower	Olmsted	Waseca	Faribault
<b>Livestock, Dairy &amp; Poultry</b>										
Cattle & Calves, Jan 1, 2004	Stearns	Otter Tail	Morrison	Winona	Fillmore	Goodhue	Todd	Wabasha	Houston	Rock
Beef Cows, Jan 1, 2004	Fillmore	Otter Tail	Morrison	Todd	Cass	Beltrami	Stearns	Houston	Pine	Clearwater
Milk Cows, Jan 1, 2004	Stearns	Morrison	Winona	Otter Tail	Goodhue	Todd	Wabasha	Fillmore	Benton	Carver
Milk Prod., 2003	Stearns	Winona	Morrison	Otter Tail	Goodhue	Wabasha	Todd	Fillmore	Carver	Benton
Breeding Sheep & Lambs, Jan 1, 2004 4/	Murray	Pipestone	Lincoln	Otter Tail	Cottonwood	Lyon	Goodhue	Sibley	Todd	Kandiyohi
Hogs, Dec 1, 2003	Martin	Blue Earth	Nobles	Brown	Nicollet	Renville	Freeborn	Mower	Jackson	Rock
Pig Crop, 2003	Martin	Blue Earth	Renville	Brown	Pipestone	Waseca	Freeborn	Cottonwood	Nicollet	Stevens
Cattle & Calves on Feed, Jan 1, 2004	Lyon	Stearns	Rock	Redwood	Nobles	Cottonwood	Brown	Murray	Dakota	Renville

1/ 2002 Census of Agriculture.  
 2/ Includes published counties only.  
 3/ Olmsted and Sibley tied for 5<sup>th</sup>, Goodhue and Wabasha tied for 9<sup>th</sup>.  
 4/ Goodhue and Sibley tied for 7<sup>th</sup>.

**FARM NUMBERS**

The 2003 total number of farms in Minnesota was estimated at 80,000, down 900 farms from 2002. The number of farms in the \$1,000-\$9,999 economic sales class decreased 200 to 35,200 in 2003. Those with sales in the \$10,000-\$99,999 economic sales class decreased 700 to 25,500 farms in 2003.

Farms in the \$100,000-\$249,999; \$250,000-\$499,999; and \$500,000 and over sales classes remained unchanged from 2002.

A farm is defined as any establishment from which \$1,000 or more of agricultural products were sold or would normally be sold during the year. Government payments are included as sales.

**NUMBER OF FARMS, LAND IN FARMS, AND****AVERAGE SIZE: Minnesota, 1992-2003 1/**

Year	Number of Farms	Land in Farms	Avg. Size of Farms
	Number	1,000 Acres	Acres
1992	88,000	29,800	339
1993	86,000	29,700	345
1994	84,500	29,500	349
1995	83,000	29,400	354
1996	82,000	29,200	356
1997	81,000	29,100	359
1998	80,000	28,600	358
1999	81,000	28,200	348
2000	81,000	27,900	344
2001	81,000	27,800	343
2002	80,900	27,800	344
2003	80,000	27,700	346

1/ A farm is any establishment from which \$1,000 or more of agricultural products were sold or would normally be sold during the year.

**NUMBER OF FARMS: By Economic Sales Class  
Minnesota, 1998-2003**

Year	\$1,000- \$9,999	\$10,000- \$99,999	\$100,000- \$249,999	\$250,000- \$499,999	\$500,000 & Over	Total
	Number					
1998	29,600	29,400	12,600	5,500	2,900	80,000
1999	30,500	29,500	12,400	5,500	3,100	81,000
2000	32,100	28,400	11,600	5,500	3,400	81,000
2001	33,900	27,100	10,900	5,400	3,700	81,000
2002	35,400	26,200	10,000	5,400	3,900	80,900
2003	35,200	25,500	10,000	5,400	3,900	80,000

**LAND IN FARMS: By Economic Sales Class  
Minnesota, 1998-2003**

Year	\$1,000- \$9,999	\$10,000- \$99,999	\$100,000- \$249,999	\$250,000- \$499,999	\$500,000 & Over	Total
	1,000 Acres					
1998	3,110	8,500	6,800	5,590	4,600	28,600
1999	3,140	8,000	6,600	5,460	5,000	28,200
2000	3,210	7,500	6,400	5,390	5,400	27,900
2001	3,220	7,200	6,200	5,380	5,800	27,800
2002	3,290	6,830	5,900	5,380	6,400	27,800
2003	3,070	6,850	5,920	5,410	6,450	27,700

## EXPORTS

Minnesota ranked 7<sup>th</sup> in farm exports for fiscal year 2002. The value of the state's exports came to \$2.20 billion versus \$2.30 billion in 2001. This accounts for 4.1 percent of the U.S. total.

The table below shows the value of farm exports by commodity group. These figures are not actual exports but are derived from Minnesota's contribution to U.S. production and/or sales. They reflect Minnesota's important stake in the national export market.

### AGRICULTURAL EXPORTS: Minnesota, FY 2002

Commodity	Value
	Million Dollars
Feed Grains & Products	512.1
Soybeans & Products	675.1
Wheat & Products	203.2
Live Animals & Meat 1/	238.4
Vegetables & Preparations	194.2
Feeds & Fodders	75.2
Dairy Products	74.2
Hides & Skins	50.8
Poultry & Products	51.7
Sunflower Seed & Oil	4.7
Fats, Oils, Greases	12.3
Seeds	26.9
Other 2/	83.5
<b>Total</b>	<b>2,202.4</b>

### AGRICULTURAL EXPORTS: State Rankings, FY 2002

Rank	State	Value
		Million Dollars
First	CA	7,160.0
Second	IL	3,310.5
Third	IA	3,217.7
Fourth	NE	3,144.8
Fifth	KS	3,005.6
Sixth	TX	2,932.7
<b>Seventh</b>	<b>MN</b>	<b>2,202.4</b>
Eighth	ND	1,933.7
Ninth	WA	1,787.7
Tenth	IN	1,696.2

1/ Excludes Poultry.

2/ Includes minor oilseeds, confectionary, nursery and greenhouse, essential oils, beverages (excluding juice), and other miscellaneous animal and vegetable products.

Note: Totals may not add due to rounding.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C. and USDA, NASS website ([www.usda.gov/nass](http://www.usda.gov/nass)).

### LAND VALUES: Average Per Acre Value of Farmland and Buildings, Minnesota and Selected States, January 1, 2000-2003 1/ 2/

State	2000	2001	2002	2003	Change 2002-2003
	Dollars Per Acre				Percent
<b>MN</b>	<b>1,280</b>	<b>1,360</b>	<b>1,450</b>	<b>1,550</b>	<b>6.9</b>
IA	1,820	1,900	1,980	2,050	3.5
ND	415	425	440	460	4.5
SD	380	405	440	470	6.8
WI	1,700	2,000	*2,150	2,300	7.0
48 States 3/	1,080	1,150	1,210	1,270	5.0

1/ Value of farmland and buildings in current dollars (not adjusted for inflation).

2/ Publication date is scheduled for August 6, 2004. Report will be available on the USDA, NASS website. ([www.usda.gov/nass/](http://www.usda.gov/nass/))

3/ Excludes Alaska and Hawaii.

\* Revised

**LAND VALUES**

Each year, the Minnesota Department of Revenue compiles every farmland sale in the state into a single data set that includes sale price, parcel size, number of tillable acres, and other pertinent items.

Statewide number of sales in 2003 totaled 1,638, a decrease of 8.4 percent from the 2002 sales. The average acreage per sale in 2003 was 108 acres, compared with 104 acres in 2002. Average unadjusted sale price per acre was \$1,963 in 2003, an increase of \$10 per acre from the 2002 average.

Cropland rented for cash in the state averaged \$82.00 per acre, an increase of \$1.00 from a year ago.

**FARMLAND SALES: Number, Acres, and Price, Minnesota, 1999-2003**

Sales Year	Number of Sales	Acres Sold	Price Per Acre	
			Unadjusted Average	Median
	<u>Number</u>	<u>Acres</u>	----- <u>Dollars</u> -----	
1999	2,327	252,163	1,279	1,036
2000	2,341	264,576	1,417	1,181
2001	2,282	255,222	1,609	1,373
2002	2,321	256,276	1,745	1,500
2003	1,638	177,162	1,963	1,519

**FARMLAND SALES: Number, Acres, and Price, by District, Minnesota, 2003**

Reporting District	Number of Sales	Acres Sold	Price Per Acre	
			Unadjusted Average	Median
	<u>Number</u>	<u>Acres</u>	----- <u>Dollars</u> -----	
Northwest	269	44,477	697	584
North Central	58	5,973	1,211	993
Northeast	5	291	1,426	719
West Central	256	28,231	1,437	1,251
Central	391	23,549	2,529	1,712
East Central	152	10,114	3,065	2,352
Southwest	165	20,970	1,723	1,735
South Central	178	16,588	2,420	2,155
Southeast	164	16,879	2,518	2,121
<b>Minnesota</b>	1,638	177,162	1,963	1,519

Source: "Minnesota Agricultural Economist".

Steven J. Taff, Department of Applied Economics, University of Minnesota.

Internet Web Site ([www.apec.umn.edu/faculty/staff/](http://www.apec.umn.edu/faculty/staff/)).

**CROPLAND RENTED FOR CASH: Average Cash Rent Per Acres, Minnesota and Selected States, 2000-2003 1/**

State	2000	2001	2002	2003	Change 2002-2003
	----- <u>Dollar Per Acre</u> -----				<u>Percent</u>
<b>MN</b>	<b>77.90</b>	<b>80.50</b>	<b>81.00*</b>	<b>82.00</b>	<b>1.2</b>
IA	115.00	117.00	120.00	122.00	1.7
ND	35.50	36.00	36.50	36.50	0.0
SD	39.80	40.00	42.00	45.00	7.1
WI	65.00	66.00	67.00*	68.00	1.5
48 States 2/	70.00	71.00	71.60*	73.00	2.0

1/ Cash rent is in normal dollars (not adjusted for inflation).

2/ Excludes Alaska and Hawaii.

\* Revised

**CORN AND SOYBEANS: Production Costs and Returns,  
Heartland Region, 2001-2002 1/**

Item	Corn		Soybeans	
	2001	2002	2001	2002
	<u>Dollars Per Planted Acre</u>		<u>Dollars Per Planted Acre</u>	
<b>Gross value of production</b> (excluding direct Government payments)				
Total gross value of production	273.17	327.93	189.78	228.34
<b>Operating costs</b>				
Seed	33.00	31.60	21.72	23.01
Fertilizer, lime, and gypsum	49.85	37.24	7.42	6.72
Soil conditioners	0.09	0.09	0.09	0.09
Manure	1.73	1.37	1.18	0.92
Chemicals	26.67	26.22	22.82	22.73
Custom operations 2/	9.77	9.69	6.14	6.05
Fuel, lube, and electricity	16.18	15.28	7.76	7.15
Repairs	12.21	12.35	9.84	9.95
Other variable cash expenses 3/	0.00	0.00	0.00	0.00
Interest on operating capital	2.50	1.13	1.30	0.64
Total operating costs	152.00	134.97	78.27	77.26
<b>Allocated overhead</b>				
Hired labor	2.10	2.19	1.42	1.49
Opportunity cost of unpaid labor	22.20	23.03	19.41	20.21
Capital recovery of machinery and equipment	51.27	51.87	52.80	53.42
Opportunity cost of land (rental rate)	96.90	98.83	92.38	93.78
Taxes and insurance	5.15	5.07	7.14	7.11
General farm overhead	10.49	10.69	15.46	15.72
Total allocated overhead	188.11	191.68	188.61	191.73
Total costs listed	340.11	326.65	266.88	268.99
<b>Value of production less total costs listed</b>	-66.94	1.28	-77.10	-40.65
<b>Value of production less operating costs</b>	121.17	192.96	111.51	151.08
<b>Supporting information</b>				
Yield (bu./planted acre)	151	142	46	44
Price (dollars per bushel at harvest)	1.80	2.30	4.16	5.23
Enterprise size (planted acres) 4/	270	270	225	225
<b>Production practices 4/</b>				
Irrigated (percent)	5	5	2	2
Dryland (percent)	95	95	98	98

1/ The Heartland Region includes portions of South Dakota, Nebraska, Iowa, Missouri, Illinois, Indiana, Ohio, and Minnesota's Ag. Statistics Districts 4, 7, 8, and 9. Minnesota is also part of the Northern Crescent and Northern Great Plains Regions. Information is available about the Northern Crescent and Northern Great Plains Regions on the ERS websites listed below.

2/ Cost of custom operations, technical services, and commercial drying.

3/ Cost of purchased irrigation water.

4/ Developed from survey base year 2001, for corn. Developed from base year, 1997, for soybeans.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.  
Internet Web Site ([www.ers.usda.gov/data/costsandreturns/testpick.htm](http://www.ers.usda.gov/data/costsandreturns/testpick.htm))

**WHEAT: Production Costs and Returns, Northern Plains Region, 1995-2002 1/ 2/**

Item	1995	1996	1997	1998	1999	2000	2001	2002
	<u>Dollars per Planted Acre</u>							
<b>Gross value of production</b> (excluding direct Government payments)								
Wheat	120.59	143.56	93.61	100.10	85.49	83.98	77.94	80.59
Wheat straw	0.51	0.60	0.74	1.74	1.42	1.67	1.85	2.39
Total, gross value of production	121.10	144.16	94.35	101.84	86.91	85.65	79.79	82.98
<b>Cash expenses</b>								
Seed	7.44	8.93	7.64	7.64	6.36	6.19	6.34	6.33
Fertilizer, lime, and gypsum	15.34	15.63	14.85	14.78	13.46	13.91	19.66	14.40
Chemicals	7.98	8.27	8.33	10.61	10.28	10.15	10.14	10.09
Custom operations	2.59	2.72	2.64	4.04	3.82	4.00	3.77	3.13
Fuel, lube, and electricity	5.99	7.12	6.74	4.25	4.16	6.06	6.03	5.22
Repairs	12.51	14.09	12.77	8.10	8.85	9.85	9.66	9.57
Hired labor	2.30	2.39	2.52	1.45	1.48	1.60	1.67	1.70
Other variable cash expenses 3/	0.03	0.03	0.03	0.16	0.16	0.16	0.17	0.17
Total, variable cash expenses	54.18	59.18	55.52	51.03	48.57	51.92	57.44	50.61
General farm overhead	5.45	4.54	5.35	6.32	6.42	6.49	6.76	6.97
Taxes and insurance	8.83	8.67	9.61	3.76	3.81	3.85	3.95	3.99
Interest	10.68	9.39	9.47	1.19	1.11	1.45	0.94	0.41
Total, fixed cash expenses	24.96	22.60	24.43	11.27	11.34	11.79	11.65	11.37
Total, cash expenses	79.14	81.78	79.95	62.04	59.91	63.71	69.09	61.98
<b>Gross value of production less cash expenses</b>	41.96	62.38	14.40	39.80	27.00	21.94	10.70	21.00
<b>Harvest-period price (dollars/bu.)</b>	4.31	4.86	3.81	2.91	2.68	2.50	2.66	3.55
<b>Yield (bu./planted acre)</b>	27.98	29.54	24.57	34.40	31.90	33.60	29.30	22.70

1/ Data for 1995-1997 refer to the Northern Plains Region which includes Minnesota, North Dakota, South Dakota, Montana, and Wyoming.

2/ Data for 1998 and later refer to the Northern Great Plains Region which includes North Dakota, South Dakota, and parts of Montana, Wyoming, Nebraska and Minnesota.

3/ Cost of purchased irrigation water and baling.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.

Internet Web Site ([www.ers.usda.gov/data/costsandreturns/testpick.htm](http://www.ers.usda.gov/data/costsandreturns/testpick.htm))

**BARLEY: Production Costs and Returns, Northern Plains Region, 1995-2002 1/**

Item	1995	1996	1997	1998	1999	2000	2001	2002
	<u>Dollars per Planted Acre</u>							
<b>Gross value of production</b> (excluding direct Government payments)								
Barley	109.22	139.00	91.83	79.90	73.27	68.82	75.98	69.85
Barley straw	1.87	1.89	2.67	2.07	1.79	2.02	2.07	2.33
Total, gross value of production	111.09	140.89	94.50	81.97	75.06	70.84	78.05	72.18
<b>Cash expenses</b>								
Seed	5.72	7.63	6.77	6.30	5.73	5.84	5.84	5.81
Fertilizer, lime, and gypsum	16.77	17.11	16.68	14.49	13.52	13.80	18.15	14.16
Chemicals	7.69	7.86	7.97	8.11	8.14	7.77	7.93	7.88
Custom operations	3.46	3.41	3.39	3.49	3.68	3.64	3.77	3.72
Fuel, lube, and electricity	7.42	8.85	8.59	7.55	7.72	10.28	8.92	8.30
Repairs	13.04	15.21	13.87	14.08	14.25	14.91	15.02	14.58
Hired labor	3.80	3.98	4.40	4.50	4.65	4.88	5.23	5.18
Other variable cash expenses 2/	0.86	0.98	1.04	1.06	1.32	1.14	1.32	1.19
Total, variable cash expenses	58.76	65.03	62.71	59.58	59.01	62.26	66.18	60.82
General farm overhead	7.27	7.28	7.58	6.07	5.77	5.82	6.01	6.15
Taxes and insurance	11.87	12.86	12.13	11.14	10.39	10.70	10.70	10.89
Interest	13.01	13.70	12.20	11.33	11.40	11.40	12.15	10.84
Total, fixed cash expenses	32.15	33.84	31.91	28.54	27.56	27.92	28.86	27.88
Total, cash expenses	90.91	98.87	94.62	88.12	86.57	90.18	95.04	88.70
<b>Gross value of production less cash expenses</b>	20.18	42.02	-0.12	-6.15	-11.51	-19.34	-16.99	-16.52
<b>Harvest-period price (dollars/bu.)</b>	2.47	2.82	2.11	1.69	1.73	1.59	1.83	2.14
<b>Yield (bu./planted acre)</b>	44.22	49.29	43.52	47.28	42.35	43.28	41.52	32.64

1/ The Northern Plains Region which includes Minnesota, North Dakota, South Dakota, Montana, and Wyoming.

2/ Cost of purchased irrigation water and baling.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.

Internet Web Site ([www.ers.usda.gov/data/costsandreturns/testpick.htm](http://www.ers.usda.gov/data/costsandreturns/testpick.htm))

**OATS: Production Costs and Returns, North Central Region, 1995-2002 1/**

Item	1995	1996	1997	1998	1999	2000	2001	2002
	<u>Dollars per Planted Acre</u>							
<b>Gross value of production</b> (excluding direct Government payments)								
Oats	71.40	119.06	104.46	64.03	68.26	69.90	85.42	103.02
Oats straw	37.98	44.21	49.88	44.21	45.34	46.48	48.18	48.77
Total, gross value of production	109.38	163.27	154.34	108.24	113.60	116.38	133.60	151.79
<b>Cash expenses</b>								
Seed	8.91	9.67	10.10	9.72	9.02	8.30	8.23	8.11
Fertilizer, lime, and gypsum	20.61	20.12	20.09	19.10	17.90	18.24	21.16	18.39
Chemicals	1.19	1.26	1.27	1.27	1.26	1.25	1.27	1.28
Custom operations 2/	5.69	5.75	5.71	5.73	5.75	5.76	5.82	5.78
Fuel, lube, and electricity	4.08	4.19	4.33	3.54	3.72	5.52	5.19	4.53
Repairs	8.03	6.50	7.63	7.10	6.70	6.57	6.69	6.77
Hired labor	1.58	1.73	1.81	1.91	2.00	2.18	2.17	2.31
Other variable cash expenses 3/	1.40	1.63	1.84	1.63	1.67	1.71	1.78	1.80
Total, variable cash expenses	51.49	50.85	52.78	50.00	48.02	49.53	52.31	48.97
General farm overhead	4.83	4.52	5.31	5.01	5.08	5.21	5.38	5.50
Taxes and insurance	19.00	20.15	20.15	19.58	20.15	21.16	21.54	21.32
Interest	6.22	6.14	6.17	6.50	6.13	6.48	6.60	6.02
Total, fixed cash expenses	30.05	30.81	31.63	31.09	31.36	32.85	33.52	32.84
Total, cash expenses	81.54	81.66	84.41	81.09	79.38	82.38	85.83	81.81
<b>Gross value of production less cash expenses</b>	27.84	81.61	69.93	27.15	34.22	34.00	47.77	69.98
<b>Harvest-period price (dollars/bu.)</b>	1.28	2.02	1.62	1.09	1.10	1.02	1.32	1.67
<b>Yield (bu./planted acre)</b>	55.78	58.94	64.48	58.74	62.05	68.53	64.71	61.69

1/ The North Central Region includes Minnesota, Iowa, Wisconsin, Illinois, Michigan, and Ohio.

2/ Cost of custom operations and technical services.

3/ Cost of baling.

Note: Survey base changed in 1994.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.

Internet Web Site ([www.ers.usda.gov/data/costsandreturns/testpick.htm](http://www.ers.usda.gov/data/costsandreturns/testpick.htm))

**SUGARBEETS: Production Costs and Returns, Red River Valley, 1995-2002 1/**

Item	1995	1996	1997	1998	1999	2000	2001	2002
	<u>Dollars per Planted Acre</u>							
<b>Gross value of production</b>								
Beets - gross value of production	685.85	851.03	697.50	733.42	739.11	723.06	752.49	803.93
<b>Cash expenses</b>								
Seed	41.15	42.91	44.81	46.39	45.55	44.89	45.01	48.02
Fertilizer	39.90	41.68	39.86	35.68	33.83	28.74	37.21	29.79
Chemicals	68.13	71.12	71.13	71.43	70.62	109.03	109.80	109.72
Custom operations	24.12	23.93	23.30	25.78	24.79	23.49	23.02	23.53
Fuel and lubrication	17.85	21.87	20.73	18.43	19.18	24.86	24.55	23.07
Repairs	28.93	29.37	31.53	33.53	34.38	32.52	34.59	37.00
Hired labor	69.33	77.02	83.06	86.06	84.88	51.76	55.21	55.95
Purchased irrigation water	0.04	0.04	0.05	0.05	0.04	0.06	0.06	0.06
Freight and dirt hauling charges	9.55	11.93	11.81	11.25	10.85	13.62	13.91	13.88
Miscellaneous 2/	14.47	16.54	16.94	15.71	15.77	13.30	13.75	13.65
Hauling allowance (-)	-9.14	-11.39	-11.36	-10.75	-10.36	-10.34	-10.44	-10.45
Total, variable cash expenses	304.33	325.02	331.86	333.56	329.53	331.93	346.67	344.22
General farm overhead	30.43	20.75	30.90	28.98	29.48	27.55	28.30	28.92
Taxes and insurance	39.36	33.23	39.24	40.39	40.76	14.57	12.59	12.84
Interest	45.83	32.88	41.99	48.63	49.59	8.38	4.96	2.44
Total, fixed cash expenses	115.62	86.86	112.13	118.00	119.83	50.50	45.85	44.20
Total, cash expenses	419.95	411.88	443.99	451.56	449.36	382.43	392.52	388.42
<b>Gross value of production less cash expenses</b>	265.90	439.15	253.51	281.86	289.75	340.63	366.97	415.51
<b>Season-average price (dollars/ton)</b>	38.38	46.76	38.43	35.21	37.16	35.10	42.27	42.25
<b>Yield (net tons/planted acre)</b>	17.87	18.20	18.15	20.83	19.89	20.60	17.80	19.00

1/ The Red River Valley includes Minnesota and eastern North Dakota.

2/ Includes costs deducted by the processor from the net payment and noncash benefits.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.

Internet Web Site ([www.ers.usda.gov/data/costsandreturns/testpick.htm](http://www.ers.usda.gov/data/costsandreturns/testpick.htm))

**HOG PRODUCTION: Farrow-to-Finish, Farrow-to-Feeder,  
Feeder Pig-to-Finish, Costs and Returns, Heartland Region, 2002 1/**

Item	All Hog Producers	Farrow to Finish	Farrow to Feeder 2/	Feeder Pig to Finish
	<u>Dollars per Cwt Gain 3/</u>			
<b>Gross value of production</b>				
Market hogs	32.90	32.11	1.61	39.69
Feeder pigs	9.10	0.64	94.07	0.15
Cull stock	0.84	1.46	2.13	0.01
Breeding stock	0.36	0.13	0.18	0.01
Inventory change	-0.07	0.03	-4.02	0.70
Other income 4/	1.48	1.40	1.23	1.62
Total gross value of production	44.61	35.77	95.20	42.18
<b>Operating costs</b>				
Feed	8.08	10.29	2.16	6.35
Grain	6.40	8.89	0.89	4.03
Protein sources	7.96	4.73	25.69	9.29
Complete mixes	0.22	0.37	0.23	0.08
Other feed items 5/	22.66	24.28	28.97	19.75
Total feed costs				
Other				
Feeder pigs	11.37	0.06	0.56	24.93
Veterinary and medicine	1.19	1.61	2.78	0.54
Bedding and litter	0.04	0.04	0.06	0.02
Marketing	0.64	0.34	3.77	0.54
Custom services	0.32	0.28	0.29	0.40
Fuel, lube, and electricity	1.27	1.36	3.31	0.79
Repairs	0.91	1.27	1.15	0.43
Other operating costs 6/	0.03	0.03	0.04	0.03
Interest on operating capital	0.32	0.25	0.34	0.40
Total operating costs	38.75	29.52	41.27	47.83
<b>Allocated overhead</b>				
Hired labor	2.61	3.00	13.05	0.47
Opportunity cost of unpaid labor	5.70	7.40	7.67	3.32
Capital recovery of machinery and equipment	10.86	11.72	27.53	6.79
Opportunity cost of land (rental rate)	0.05	0.06	0.07	0.02
Taxes and insurance	0.49	0.53	0.94	0.37
General farm overhead	1.03	1.13	1.60	0.79
Total, allocated overhead	20.74	23.84	50.86	11.76
Total costs listed	59.49	53.36	92.13	59.59
<b>Value of production less total costs listed</b>	-14.88	-17.59	3.07	-17.41
<b>Value of production less operating costs</b>	5.86	6.25	53.93	-5.65
<b>Supporting information</b>				
Production arrangement (percent of production)				
Independent	71	99	22	48
Under contract	29	1	78	52
Size of operation (head sold/removed)				
Market hogs	1,852	1,644	74	2,686
Feeder pigs	1,045	53	9,744	14

1/ The Heartland Region includes portions of South Dakota, Nebraska, Iowa, Missouri, Illinois, Indiana, Ohio, and Minnesota's Ag. Statistics Districts 4, 7, 8, and 9. Minnesota is also part of the Northern Crescent and Northern Great Plains Regions. Information is available about the Northern Crescent and Northern Great Plains Regions on the ERS website. Developed from survey base year, 1998.

2/ Farrow to Feeder data are for the United States (Heartland Region data are not available).

3/ Cwt gain = (cwt sold - cwt purchased) ÷ cwt inventory change.

4/ Value of manure production.

5/ Milk replacer, milk, milk by-products, antibiotics, and other medicated additives.

6/ Costs for odor control and fees, permits, licenses, and other regulatory costs.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.  
Internet Web Site ([www.ers.usda.gov/data/costsandreturns/testpick.htm](http://www.ers.usda.gov/data/costsandreturns/testpick.htm))

**COW-CALF: Production Costs and Returns, Heartland Region, 2001-2002 1/**

Item	2001	2002
	<u>Dollars per Bred Cow</u>	
<b>Gross value of production</b>		
Steer calves	188.26	171.57
Heifer calves	127.54	115.34
Yearling steers	38.84	34.95
Yearling heifers	11.74	10.80
Other cattle	72.71	64.54
Total gross value of production	443.39	401.47
<b>Operating costs</b>		
Purchased cattle for backgrounding	26.39	23.26
Feed		
Concentrates and other feed	26.23	26.81
Supplemental feed	35.19	40.24
Harvested forages	206.00	202.16
Cropland pasture	13.42	13.20
Private pasture	73.63	73.61
Public land	0.37	0.36
Total feed costs	354.84	356.38
Other		
Veterinary and medicine	39.24	38.49
Bedding and litter	1.32	1.34
Marketing	4.30	4.27
Custom operations	40.77	40.18
Fuel, lube, and electricity	16.18	16.16
Repairs	29.63	29.24
Interest on operating inputs	8.89	4.40
Total operating costs	521.56	513.72
<b>Allocated overhead</b>		
Hired labor	0.58	0.60
Opportunity cost of unpaid labor	205.55	219.81
Capital recovery cost of machinery and equipment	272.90	280.63
Opportunity cost of land	5.46	5.55
Taxes and insurance	44.13	44.23
General farm overhead	82.71	84.10
Total allocated overhead	611.33	634.92
Total cost listed	1,132.89	1,148.64
<b>Value of production less total costs listed</b>	-689.50	-747.17
<b>Value of production less operating costs</b>	-78.17	-112.25

1/ The Heartland Region includes portions of South Dakota, Nebraska, Iowa, Missouri, Illinois, Indiana, Ohio, and Minnesota's Ag. Statistics Districts 4, 7, 8, and 9. Minnesota is also part of the Northern Crescent and Northern Great Plains Regions. Information is available about the Northern Crescent and Northern Great Plains Regions on the ERS website listed below.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.  
Internet Web Site ([www.ers.usda.gov/data/costsandreturns/testpick.htm](http://www.ers.usda.gov/data/costsandreturns/testpick.htm))



**Milk: Production Costs And Returns, per cwt sold, 2001-2002**

Item	Heartland 1/		Northern Crescent 2/	
	2001	2002	2001	2002
	<u>Dollars per Cwt.</u>			
<b>Gross value of production</b>				
Milk	15.31	12.35	15.78	12.93
Cattle	1.54	1.42	1.24	1.14
Other income 3/	1.05	0.82	0.81	0.65
Total gross value of production	17.90	14.59	17.83	14.72
<b>Operating costs:</b>				
Feed				
Feed grains	1.93	2.25	1.24	1.44
Hay and straw	2.36	2.74	1.15	1.25
Complete feed mixes	0.94	0.90	1.14	1.22
Liquid whey and milk replacer	0.07	0.10	0.07	0.09
Silage	0.83	0.78	1.20	0.99
Grazed pasture and cropland	0.13	0.13	0.07	0.07
Other feed item 4/	1.57	1.65	1.07	1.24
Total feed costs	7.83	8.55	5.94	6.30
Other				
Veterinary and medicine	0.77	0.76	0.79	0.78
Bedding and litter	0.23	0.22	0.24	0.23
Marketing	0.22	0.22	0.31	0.31
Custom service	0.54	0.53	0.48	0.48
Fuel, lube, and electricity	0.52	0.47	0.53	0.50
Repairs	0.59	0.61	0.61	0.62
Other operating costs 5/	0.00	0.00	0.00	0.00
Interest on operating capital	0.18	0.10	0.15	0.08
Total operating costs	10.88	11.46	9.05	9.30
<b>Allocated overhead</b>				
Hired labor	0.79	0.81	1.21	1.28
Opportunity cost of unpaid labor	5.68	5.79	5.15	5.20
Capital recovery of machinery and equipment 6/	4.67	4.73	4.22	4.22
Opportunity cost of land (rental rate)	0.09	0.09	0.08	0.08
Taxes and insurance	0.20	0.19	0.22	0.22
General farm overhead	0.58	0.60	0.63	0.64
Total allocated overhead	12.01	12.21	11.51	11.64
Total cost listed	22.89	23.67	20.56	20.94
<b>Value of production less total costs listed</b>	-4.99	-9.08	-2.73	-6.22
<b>Value of production less operating costs</b>	7.02	3.13	8.78	5.42
<b>Supporting Information</b>				
Milk Cows (head per farm)	59	60	68	70
Output per cow (pounds)	18,544	18,479	19,806	19,890
Milking frequency greater than twice per day (percent of farms)	1.76	1.87	2.98	3.15
Homegrown feed cost (percent of total feed cost)	60	60	49	49
Milk cows injected with BST (head per farm)	10	10	14	14

1/ The Heartland Region includes MN Agricultural Statistics Districts (ASD) 4, 7, 8, and 9, SD ASD 6 and 9, NE ASD 3 and 6, IA, MO ASD 1, 2, 3, 4, 5, and 9, IL, IN, KY ASD 1 and 2, and Ohio ASD 1, 4, 5, 7 and 8. The first data available for the Heartland Region is 2000.

2/ The Northern Crescent Region includes New England, New York ASD 1, 2, 3, 5, 6, 8 and 9, Ohio ASD 2 and 3, MI, WI and MN ASD 2, 3, 5 and 6. The first data available for the Northern Crescent Region is 2000.

3/ Income from renting or leasing dairy stock to other operations; renting space to other dairy operations; co-op patronage dividends associated with the dairy; assessment rebates, refunds, and other dairy related resources; and manure production.

4/ Cotton seed meal, protein supplements, protein by products, vitamin or mineral supplements, nonprotein byproducts, alfalfa cubes or pellets, green chop, corn stalks, and antibiotics and other medicated additives.

5/ Manure disposal fees, permits, licenses, and odor control costs.

6/ Machine and equipment, and housing, manure handling, and feed storage structures, and dairy breeding herd.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.  
Internet Web Site ([www.ers.usda.gov/data/costsandreturns/testpick.htm](http://www.ers.usda.gov/data/costsandreturns/testpick.htm))

## FARM INCOME AND EXPENSES: Minnesota, 1998-2002

Item	1998	1999	2000	2001	2002
			<u>Million Dollars</u>		
<b>Value of crop production</b>	4,301,612	3,540,231	3,581,637	3,165,579	4,333,828
Food grains	268,698	210,224	244,095	252,214	244,001
Feed crops	1,428,472	1,241,535	1,259,443	1,157,851	1,448,927
Oil crops	1,592,413	1,207,319	1,263,223	1,095,993	1,342,740
Fruits and tree nuts	11,083	7,083	10,804	10,444	11,250
Vegetables	274,847	249,587	210,629	232,313	235,579
All other crops	515,940	530,106	502,938	506,109	550,775
Home consumption	6,000	6,075	5,999	6,075	6,075
Value of inventory adjustment 2/	204,159	88,302	84,506	(95,420)	494,481
<b>Value of livestock production</b>	3,793,875	3,588,034	3,924,474	4,298,724	3,604,035
Meat animals	1,678,741	1,586,945	2,117,685	2,313,118	1,945,919
Dairy products	1,425,935	1,312,220	1,126,560	1,297,343	1,011,318
Poultry and eggs	611,528	609,709	595,521	629,111	643,230
Miscellaneous livestock	60,494	40,844	43,349	42,930	44,387
Home consumption	14,637	14,976	16,159	17,208	16,310
Value of inventory adjustment 2/	2,540	23,340	25,200	(986)	(57,129)
<b>Revenues from services and forestry</b>	860,636	855,806	853,599	1,081,481	880,364
Machine hire and customwork	102,986	78,516	62,282	115,485	69,716
Forest products sold	7,100	7,100	7,100	7,100	7,100
Other farm income	354,984	363,872	374,280	517,862	358,512
Gross imputed rental value of farm dwellings	395,566	406,318	409,937	441,034	445,036
<b>Value of agricultural sector production 1/</b>	8,956,123	7,984,072	8,359,711	8,545,784	8,818,226
<b>Purchased inputs</b>	5,330,884	5,119,655	5,465,530	5,883,551	5,779,612
<b>Farm origin</b>	2,033,467	1,941,601	2,100,911	2,292,448	2,316,107
Feed purchased	1,226,653	1,112,550	1,168,214	1,221,881	1,243,286
Livestock and poultry purchased	318,748	330,973	407,087	504,911	482,136
Seed purchased	488,066	498,078	525,610	565,656	590,685
<b>Manufactured inputs</b>	1,420,798	1,328,809	1,444,651	1,453,474	1,411,936
Fertilizers and lime	520,728	461,508	483,357	505,453	465,926
Pesticides	509,072	484,958	501,034	471,561	482,279
Petroleum fuel and oils	276,617	264,667	343,245	347,819	329,069
Electricity	114,381	117,676	117,015	128,641	134,662
<b>Other purchased inputs</b>	1,876,619	1,849,245	1,919,968	2,137,629	2,051,569
Repair and maintenance of capital items	533,144	496,528	451,950	614,448	496,786
Machine hire and customwork	195,402	182,814	190,785	302,773	204,514
Marketing, storage, and transportation expenses	209,296	230,251	272,201	209,355	268,096
Contract labor	21,692	15,990	14,056	22,912	17,361
Miscellaneous expenses	917,085	923,662	990,976	988,141	1,064,812
<b>Net government transactions</b>	401,480	1,023,602	1,100,982	842,583	91,205
Direct Government payments	794,547	1,409,859	1,502,230	1,242,141	480,483
Motor vehicle registration and licensing fees	18,612	16,179	15,079	17,412	15,177
Property taxes	374,455	370,078	386,169	382,146	374,101
<b>Gross value added</b>	4,026,719	3,888,018	3,995,163	3,504,816	3,129,819
<b>Capital consumption</b>	958,611	970,887	977,036	994,532	1,028,486
<b>Net value added</b>	3,068,108	2,917,131	3,018,127	2,510,284	2,101,333
<b>Payments to stakeholders</b>	1,716,664	1,639,106	1,735,707	1,702,212	1,639,134
Employee compensation (total hired labor)	463,455	450,255	514,594	508,710	524,343
Net rent received by nonoperator landlords	491,889	437,208	437,964	481,250	457,143
Real estate and nonreal estate interest	761,320	751,643	783,149	712,252	657,648
<b>Net farm income</b>	1,351,444	1,278,025	1,282,420	808,072	462,199

1/ Value of agricultural sector production is the gross value of the commodities and services produced within a year. Net value-added is the sector's contribution to the National economy and is the sum of the of the income from production earned by all factors-of-production, regardless of ownership. Net farm income is the farm operators' share of income from the sector's production activities. The concept presented is consistent with that employed by the Organization for Economic Cooperation and Development.

2/ A positive value of inventory change represents current-year production not sold by December 31. A negative value is an offset to production from prior years included in current-year sales.

Source: Economic Research Service, United States Department of Agriculture, Washington, D. C.

**CASH RECEIPTS FROM FARM MARKETINGS: Minnesota, 2000-2002 1/**

Commodity	2000		2001		2002	
	Dollars	Percent of Total	Dollars	Percent of Total	Dollars	Percent of Total
	<u>1,000</u>	<u>Percent</u>	<u>1,000</u>	<u>Percent</u>	<u>1,000</u>	<u>Percent</u>
<b>CROPS 2/</b>						
<b>Feed Crops</b>						
Corn	1,181,675	16.0	1,059,370	14.0	1,348,547	18.0
Oats	6,992	0.1	6,287	0.1	8,835	0.1
Barley	10,039	0.1	13,469	0.2	11,257	0.2
Hay	60,737	0.8	78,726	1.0	80,288	1.1
<b>Food Grains</b>						
Wheat	242,816	3.3	251,475	3.3	243,188	3.2
Rye	1,416	*	*	*	*	*
<b>Oil Crops</b>						
Soybeans	1,235,908	16.8	1,077,471	14.3	1,327,797	17.8
Sunflowers	12,791	0.2	9,599	0.1	9,376	0.1
<b>Vegetable Crops</b>						
Potatoes	70,205	1.0	90,207	1.2	95,674	1.3
Sweet Corn (processed)	50,897	0.7	54,714	0.7	57,159	0.8
Green Peas (processed)	45,204	0.6	32,091	0.4	31,362	0.4
<b>Other Crops</b>						
Sugarbeets	311,557	4.2	314,179	4.2	356,816	4.8
Dry Beans	31,825	0.4	44,365	0.6	41,702	0.6
Apples	7,774	0.1	7,389	0.1	8,245	0.1
Floriculture	77,602	1.0	79,539	1.0	78,276	1.0
Other Crops, Fruits, & Vegetables 3/	143,704	1.9	136,044	1.8	134,749	1.8
<b>Total Crops</b>	<b>3,491,132</b>	<b>47.3</b>	<b>3,254,925</b>	<b>43.2</b>	<b>3,833,271</b>	<b>51.3</b>
<b>LIVESTOCK AND PRODUCTS</b>						
<b>Meat Animals</b>						
Cattle & Calves	896,602	12.2	890,842	11.8	866,196	11.6
Hogs	1,207,465	16.4	1,410,773	18.7	1,067,805	14.3
Sheep & Lambs	13,618	0.2	11,503	0.2	11,918	0.2
<b>Dairy Products</b>	<b>1,126,560</b>	<b>15.3</b>	<b>1,297,343</b>	<b>17.2</b>	<b>1,011,318</b>	<b>13.5</b>
<b>Poultry &amp; Eggs</b>						
Turkeys	360,876	4.9	385,000	5.1	413,424	5.5
Broilers	72,930	1.0	85,605	1.1	68,940	0.9
Chicken Eggs	116,666	1.6	112,810	1.5	106,216	1.4
<b>Other Livestock Products</b>						
Honey	7,695	0.1	7,108	0.1	12,128	0.2
Miscellaneous Livestock & Products 4/	80,703	1.1	81,518	1.1	86,909	1.2
<b>Total Livestock</b>	<b>3,883,115</b>	<b>52.7</b>	<b>4,282,502</b>	<b>56.8</b>	<b>3,644,854</b>	<b>48.7</b>
<b>TOTAL ALL CROPS AND LIVESTOCK</b>	<b>7,374,248</b>	<b>100.0</b>	<b>7,537,427</b>	<b>100.0</b>	<b>7,478,125</b>	<b>100.0</b>

1/ The years 2000, 2001 and 2002 revised on July 25, 2003.

2/ Includes Commodity Credit loans (calculated by crop open market sales plus net CCC loans).

3/ Includes flaxseed, other oil crops, Kentucky bluegrass, red clover, timothy, and other seeds; asparagus, green lima beans, snap beans, cabbage, onions, carrots, cucumbers, miscellaneous vegetables, mushrooms, other fruits, and other field crops.

4/ Wool, mink, goats, ducks, geese, beeswax, turkey eggs, farm chickens, and other livestock and poultry.

\* Less than 0.1%.

Note: Percents may not add to totals because of rounding.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.

Internet Web Site ([www.ers.usda.gov/data/farmincome/finfidmu.htm](http://www.ers.usda.gov/data/farmincome/finfidmu.htm))

## FARM BALANCE SHEET: Minnesota, 1998-2002

Item	1998	1999	2000	2001	2002
			<u>Million Dollars</u>		
<b>Total Farm Assets 1/</b>	43,047.7	44,530.9	46,957.6	48,587.1	51,633.5
Real Estate	30,471.3	31,489.7	33,457.8	35,547.2	37,998.8
Livestock and Poultry 2/	2,009.7	2,438.3	2,485.8	2,602.2	2,436.7
Machinery and Motor Vehicles 3/	4,851.9	4,854.2	4,853.6	5,036.4	5,087.4
Crops 4/	2,093.2	2,094.1	2,388.0	1,701.6	2,195.5
Purchased Inputs	410.2	327.9	398.7	343.1	458.7
Financial	3,211.6	3,326.7	3,373.7	3,356.7	3,456.5
<b>Total Farm Debt 1/ 5/</b>	8,809.3	8,629.4	8,968.5	9,385.8	9,753.8
Real Estate	4,283.8	4,298.5	4,392.5	4,633.0	4,991.4
By Lender					
Farm Credit System	1,516.8	1,409.2	1,427.0	1,579.0	1,817.5
Farm Service Agency 6/	152.2	140.0	134.5	132.3	125.7
Commercial Banks	1,257.7	1,376.8	1,485.6	1,551.7	1,650.5
Life Insurance Companies	251.3	268.8	252.9	256.4	261.3
Individuals and others	1,105.9	1,103.7	1,092.5	1,113.5	1,136.5
Nonreal Estate 1/	4,525.4	4,330.9	4,576.0	4,752.9	4,762.4
By Lender					
Farm Credit System	1,148.2	984.6	967.2	1,114.6	1,143.9
Farm Service Agency 6/	198.0	185.8	190.4	188.2	180.2
Commercial Banks	2,370.3	2,323.3	2,520.0	2,529.7	2,491.4
Individuals and others	808.9	837.2	898.3	920.4	946.9
<b>Total Farm Equity 1/</b>	34,238.5	35,901.4	37,989.1	39,201.3	41,879.7
			<u>Percent</u>		
<b>Debt/Equity Ratio</b>	25.7	24.0	23.6	23.9	23.3
<b>Debt/Assets Ratio</b>	20.5	19.4	19.1	19.3	18.9

1/ May not add to total due to rounding.

2/ Excludes horses, mules, and broilers.

3/ Includes only farm share value for trucks and autos.

4/ All non-CCC crops held on farms plus the value above loan rate for crops held under CCC.

5/ Excludes debt for nonfarm purposes.

6/ Farmers' Home Administration prior to 1994.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.  
Internet Web Site ([www.ers.usda.gov/data/farbalancesheet/fbsdmu.htm](http://www.ers.usda.gov/data/farbalancesheet/fbsdmu.htm))



## 2003 Weather Summary

As a whole, 2003 was a warm and dry year in Minnesota. The year started with a lack of snow. A wet spring and early summer followed for the southern two-thirds of the state. The second half of the year turned dry and the worst drought since 1988 was in full force at the close of the year.

January and February precipitation totals were below normal in most locations. Many communities were nearly devoid of snow cover until modest snowfalls covered the ground during the last week of January. February marked the fourth consecutive month of very light precipitation in the state. Only in parts of the southwest and central Minnesota did precipitation totals top normal. February was cold with temperatures finishing two to seven degrees below normal.

March and April fell short of normal precipitation in many communities. April was wet in the central one third of the state. A small corner in the southwestern area received abundant rain. Pipestone, for instance, received 7 inches of rain for the month. In the central region and far southwest, April precipitation totals exceeded the historical average by more than one inch.

Precipitation totals in May were generally at or above normal across most of the state. The exception was the north central with slightly below normal rainfall. The heaviest rainfall was in the east central area with some sites exceeding six inches for the month.

Rainfall in June varied widely across the state. Monthly precipitation totals topped historical averages by one to six inches over portions of northwestern, west central, central, and east central Minnesota. Elsewhere across the state, rainfall was near to somewhat below normal. June was the last month of the year that received above normal rainfall statewide.

In mid-July a dry spell began. For the rest of the summer, rainfall was below normal in most communities. Very isolated heavy rains led to above normal July precipitation totals for a handful of communities, mainly in northern Minnesota. August rainfall totals across most of the state ranked among the lowest on recent record. August rainfall totals were generally one and one half inches below normal, with many communities reporting less than one inch of precipitation for the month. Precipitation totals in August fell short of the historical average by one and one half to three and one half inches. August temperatures were above normal by two to five degrees.

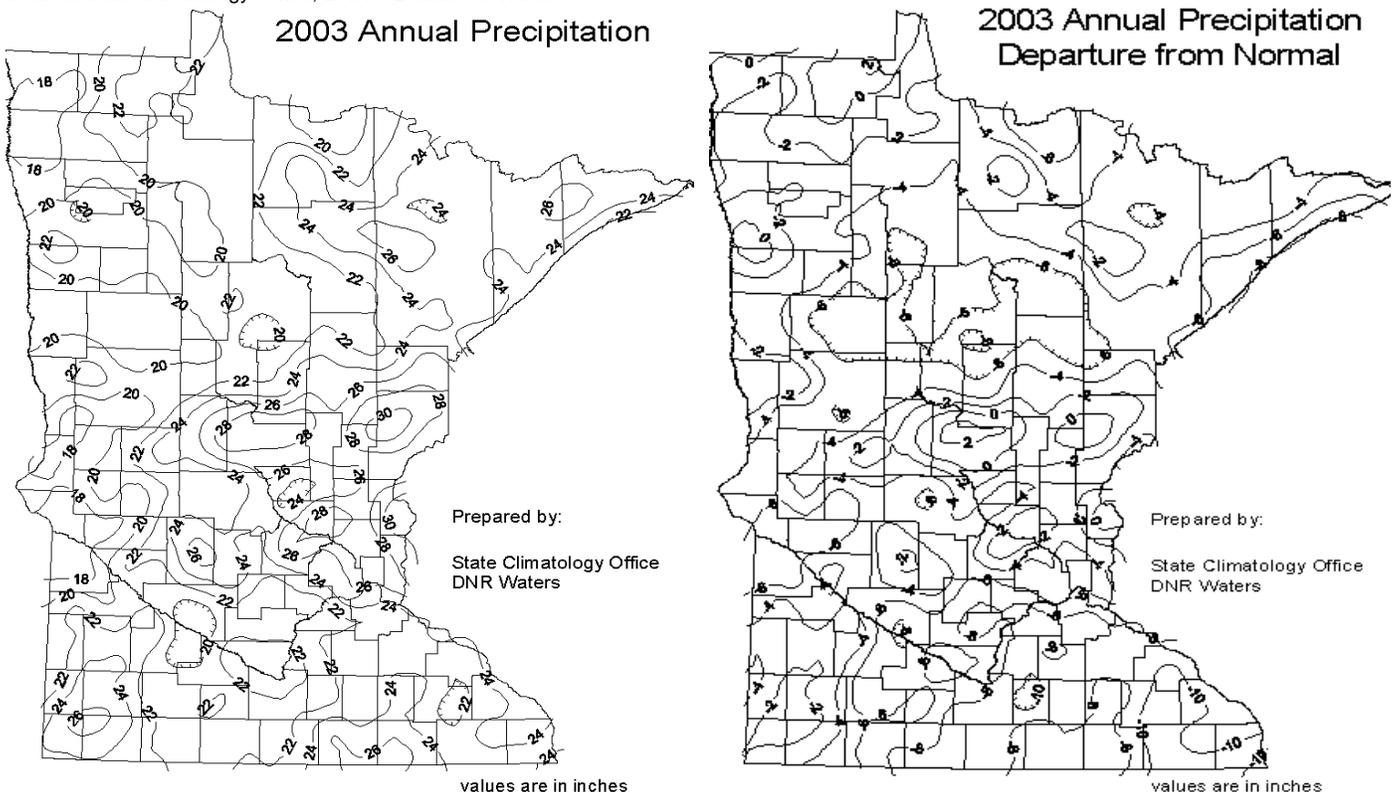
Some relief to the dry spell came with September rainfall in southwestern, northwestern, and northeastern counties. Rainfall there exceeded normal by one to two inches. September precipitation was near normal across the central one third of the state. September rainfall in north central, south central, and southeastern communities fell short of normal by about one inch.

The dry spell, now considered a moderate drought, intensified in October and November with precipitation totals falling short of normal in most counties. Monthly mean temperatures for October were one to four degrees above normal.

Precipitation totals in December fell short of normal by one quarter to one half of an inch in approximately two thirds of the counties. Temperatures for December were warmer than normal. In most communities, monthly average temperatures exceeded the norm by six to ten degrees. 2003 ended with the drought continuing and intensifying statewide.

The accompanying maps show that virtually the entire state finished below normal for the year. This was the first time since 1989 that the state finished below the 25<sup>th</sup> percentile for annual precipitation.

Source: State Climatology Office, DNR – Division of Waters



## MEDIAN FROST DATES: Minnesota, Based on Averages from 1948-92

District and County	Station	Average Date of Last Temperature Occurrence			Average Date of First Temperature Occurrence			Number of Days Between Average Last Spring and First Fall Occurrence of:		
		24°F	28°F	32°F	32°F	28°F	24°F	32°F	28°F	24°F
<b>Northwest</b>										
Norman	Ada	Apr 24	May 06	May 14	Sep 24	Oct 02	Oct 13	133	153	176
Marshall	Argyle	Apr 26	May 09	May 18	Sep 22	Sep 28	Oct 10	126	143	168
Polk	Crookston	Apr 25	May 08	May 16	Sep 23	Sep 29	Oct 13	129	145	170
Becker	Detroit Lakes	May 02	May 10	May 21	Sep 17	Sep 24	Oct 05	116	139	157
Polk	Fosston	Apr 26	May 07	May 17	Sep 21	Sep 28	Oct 16	127	146	173
Kittson	Hallock	Apr 27	May 09	May 19	Sep 23	Oct 02	Oct 10	126	144	165
Clay	Moorhead	Apr 21	May 06	May 13	Sep 24	Oct 04	Oct 15	135	152	178
Red Lake	Red Lake Falls	Apr 20	May 08	May 17	Sep 22	Sep 28	Oct 10	127	141	176
Roseau	Roseau	May 04	May 14	May 25	Sep 16	Sep 25	Oct 07	112	137	159
Roseau	Warroad	Apr 30	May 10	May 21	Sep 23	Sep 28	Oct 12	124	141	165
<b>North Central</b>										
Lake of the Woods	Baudette	Apr 28	May 09	May 22	Sep 22	Sep 28	Oct 13	122	146	164
Beltrami	Bemidji	May 04	May 09	May 22	Sep 22	Sep 27	Oct 15	124	136	164
Koochiching	Big Falls	May 04	May 15	Jun 01	Sep 15	Sep 24	Oct 05	108	135	159
Itasca	Grand Rapids	Apr 27	May 09	May 23	Sep 20	Sep 27	Oct 09	116	141	165
Koochiching	Int'l Falls	Apr 29	May 12	May 24	Sep 17	Sep 25	Oct 08	114	138	163
Hubbard	Park Rapids	May 01	May 08	May 19	Sep 20	Sep 27	Oct 07	124	143	162
<b>Northeast</b>										
St. Louis	Babbitt	Apr 28	May 09	May 21	Sep 23	Oct 05	Oct 22	125	153	174
St. Louis	Duluth (Airport)	Apr 24	May 09	May 20	Sep 22	Oct 05	Oct 17	124	154	175
Cook	Grand Marais	Apr 17	May 01	May 15	Sep 30	Oct 19	Oct 30	138	171	194
St. Louis	Hibbing	Apr 28	May 12	May 29	Sep 13	Sep 26	Oct 06	107	137	163
<b>West Central</b>										
Douglas	Alexandria	Apr 13	Apr 24	May 08	Oct 01	Oct 12	Oct 25	146	169	194
Swift	Benson	Apr 13	Apr 29	May 07	Sep 30	Oct 10	Oct 18	146	166	189
Wilkin	Campbell	Apr 20	Apr 29	May 10	Sep 24	Oct 02	Oct 14	136	156	179
Yellow Medicine	Canby	Apr 14	Apr 28	May 08	Oct 01	Oct 10	Oct 21	147	163	189
Otter Tail	Fergus Falls	Apr 16	Apr 30	May 09	Sep 27	Oct 09	Oct 21	143	162	188
Lac Qui Parle	Madison	Apr 14	Apr 29	May 07	Sep 28	Oct 09	Oct 20	144	166	192
Lac Qui Parle	Montevideo	Apr 13	Apr 28	May 07	Sep 30	Oct 10	Oct 21	146	169	192
Stevens	Morris	Apr 14	Apr 29	May 08	Sep 27	Oct 06	Oct 17	143	161	185
Traverse	Wheaton	Apr 15	Apr 28	May 10	Sep 28	Oct 10	Oct 23	143	162	189
<b>Central</b>										
Sibley	Gaylord	Apr 09	Apr 17	Apr 30	Oct 05	Oct 14	Oct 24	159	180	193
Scott	Jordan	Apr 13	Apr 28	May 10	Sep 27	Oct 07	Oct 20	143	164	190
Morrison	Little Falls	Apr 19	May 02	May 12	Sep 24	Oct 03	Oct 17	136	154	181
Stearns	Melrose	Apr 12	Apr 28	May 11	Sep 24	Oct 05	Oct 16	138	160	186
Stearns	St. Cloud	Apr 19	May 01	May 12	Sep 24	Oct 05	Oct 17	138	157	180
Wadena	Wadena	Apr 22	May 16	May 12	Sep 24	Oct 03	Oct 18	137	156	180
Kandiyohi	Willmar	Apr 12	May 05	May 02	Oct 03	Oct 14	Oct 24	154	172	193
<b>East Central</b>										
Aitkin	Aitkin	Apr 23	May 06	May 19	Sep 23	Sep 28	Oct 18	126	149	176
Crow Wing	Brainerd	Apr 22	May 04	May 12	Sep 20	Oct 01	Oct 16	132	151	175
Pine	Hinckley	Apr 22	May 06	May 20	Sep 22	Sep 28	Oct 10	120	147	172
Hennepin	Maple Plain	Apr 13	Apr 25	May 06	Oct 01	Oct 13	Oct 25	153	169	195
Mille Lacs	Milaca	Apr 18	May 01	May 12	Sep 25	Oct 03	Oct 18	137	153	184
Carlton	Moose Lake	May 02	May 16	May 31	Sep 16	Sep 26	Oct 07	109	132	162
Kanabec	Mora	Apr 21	May 05	May 17	Sep 20	Oct 01	Oct 14	125	151	169
Washington	Stillwater	Apr 10	Apr 16	May 02	Oct 07	Oct 16	Nov 02	160	184	207
<b>Southwest</b>										
Redwood	Lamberton	Apr 09	Apr 28	May 06	Sep 29	Oct 07	Oct 15	146	163	188
Rock	Luverne	Apr 16	Apr 29	May 07	Sep 27	Oct 05	Oct 16	142	160	177
Lyon	Marshall	Apr 10	Apr 22	May 05	Oct 04	Oct 15	Oct 24	155	176	196
Pipestone	Pipestone	Apr 23	May 05	May 12	Sep 23	Oct 03	Oct 10	135	151	171
Cottonwood	Windom	Apr 14	Apr 15	May 07	Sep 30	Oct 07	Oct 19	146	167	189
<b>South Central</b>										
Freeborn	Albert Lea	Apr 09	Apr 20	May 02	Oct 05	Oct 18	Oct 31	156	181	201
Martin	Fairmont	Apr 06	Apr 14	May 01	Oct 09	Oct 20	Oct 31	161	189	208
Rice	Faribault	Apr 14	Apr 27	May 10	Sep 29	Oct 11	Oct 24	146	167	193
Brown	New Ulm	Apr 09	Apr 23	May 03	Sep 28	Oct 10	Oct 23	148	170	193
Waseca	Waseca	Apr 12	Apr 23	May 06	Oct 01	Oct 06	Oct 24	149	167	192
Faribault	Winnebago	Apr 09	Apr 19	May 03	Oct 06	Oct 17	Oct 26	158	180	203
<b>Southeast</b>										
Mower	Austin	Apr 12	Apr 29	May 07	Sep 27	Oct 06	Oct 23	144	166	191
Houston	Caledonia	Apr 14	Apr 24	May 06	Sep 29	Oct 11	Oct 26	152	174	192
Dakota	Farmington	Apr 11	Apr 21	May 03	Oct 03	Oct 12	Oct 29	155	178	201
Fillmore	Preston	Apr 21	May 07	May 18	Sep 21	Sep 29	Oct 13	125	148	178
Olmsted	Rochester	Apr 11	Apr 21	May 08	Sep 30	Oct 13	Oct 27	147	174	197
Winona	Winona	Apr 07	Apr 17	Apr 17	Oct 06	Oct 19	Oct 31	163	184	205
Goodhue	Zumbrota	Apr 17	Apr 30	Apr 30	Sep 25	Oct 03	Oct 18	139	157	187

Source: State Climatology Office, DNR - Division of Waters

## MONTHLY PRECIPITATION: by Selected Stations and Districts, Minnesota, 2003

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Precipitation (Inches)											
<b>Northwest</b>												
Argyle	.18	.41	.36	1.13	2.96	2.78	2.00	.75	2.55	1.04	.83	.68
Crookston	.14	.25	.86	.75	3.41	5.05	2.77	1.13	3.67	1.48	M.32	.63
Moorhead	M	M	.63	1.85	M	6.12	M	M	M	M	M	M
District Average	.22	.28	.64	1.18	3.06	5.16	1.96	1.14	3.03	1.44	.62	.68
District Normal	.71	.48	.96	1.63	2.52	3.71	3.17	2.96	2.55	1.72	.82	.69
<b>North Central</b>												
Grand Rapids	.19	.21	.68	1.49	3.35	3.25	3.50	1.20	2.52	1.68	1.77	.82
Int'l Falls	T	.09	.51	.65	1.44	3.99	3.30	2.36	2.17	1.03	.93	.38
Walker	.12	.18	.92	.52	3.50	4.39	7.41	1.16	1.44	1.30	1.39	.40
District Average	.18	.23	.58	1.28	2.56	4.48	3.55	1.94	2.22	1.43	1.14	.62
District Normal	.78	.52	1.15	1.92	2.83	4.00	3.74	3.51	3.02	2.28	1.12	.83
<b>Northeast</b>												
Duluth	.23	.23	1.03	2.03	3.54	3.47	4.79	2.31	3.52	1.57	1.70	.54
Grand Marais	.12	.15	M.15	2.19	2.38	1.48	3.57	1.82	2.55	1.57	.19	.37
Hibbing	.01	T	.18	.83	2.49	2.95	4.36	2.14	4.44	1.27	.23	.04
District Average	.18	.29	.90	1.80	2.84	3.18	4.40	2.24	4.21	1.70	1.33	.63
District Normal	.98	.66	1.36	2.03	2.93	4.03	3.70	3.81	3.58	2.54	1.56	1.05
<b>West Central</b>												
Canby	.17	1.58	.62	2.80	3.53	3.17	3.33	1.37	2.84	1.00	1.70	.58
Fergus Falls	.49	.07	.23	1.83	4.28	5.83	1.60	.82	1.29	.70	M1.02	.66
Montevideo	M.26	M.60	M.07	2.31	5.35	3.48	2.09	.49	4.92	.83	M.40	M.00
Morris	.35	.26	.44	1.99	3.46	7.24	4.94	.70	2.91	.96	.57	.45
District Average	.29	.50	.37	2.39	3.43	5.62	2.48	.76	2.53	.95	.63	.41
District Normal	.73	.67	1.39	2.22	2.84	3.81	3.31	3.01	2.46	1.99	1.05	.65
<b>Central</b>												
Hutchinson	M.43	M.85	1.04	1.82	M3.29	5.58	2.39	.47	3.55	.55	.76	.47
Olivia	M.22	1.12	.55	1.55	3.71	3.44	2.55	.66	3.16	.68	.67	.60
St. Cloud	.17	.39	1.47	4.73	3.81	3.62	3.43	.69	3.94	1.10	1.05	.28
Willmar	.34	.32	.36	3.15	4.28	8.26	4.51	M.20	2.01	1.06	.78	.30
District Average	.25	.60	.80	3.07	4.16	5.58	3.08	.63	2.83	.95	1.02	.49
District Normal	.79	.70	1.63	2.46	3.22	4.35	3.66	3.66	3.01	2.27	1.36	.86
<b>East Central</b>												
Aitkin	.10	.24	.72	4.03	3.23	6.70	4.31	M	2.87	1.22	1.97	.45
Cambridge	M	M	M	M	M	M	M	M	M	M	M	M
MSP-Airport	.22	.54	1.44	2.40	6.14	4.66	2.05	1.12	2.20	.62	.72	.62
District Average	.20	.48	1.22	2.82	5.17	6.15	3.28	.87	3.04	1.23	.99	.62
District Normal	.88	.69	1.62	2.33	3.31	4.31	3.88	3.83	3.35	2.46	1.52	1.04
<b>Southwest</b>												
Lamberton	M.20	M.53	.90	1.91	2.93	5.34	1.62	1.34	3.59	M.15	.65	.58
Marshall	M.47	M1.22	M.37	3.68	3.49	2.88	3.17	.59	4.17	.83	1.63	1.37
Pipestone	.45	.54	.43	7.64	2.74	4.08	1.79	1.67	4.29	1.09	M.59	M.56
Redwood Falls	M.28	1.08	.61	2.12	4.07	2.45	3.03	1.61	3.07	.56	.71	.48
Windom	.41	.62	M.90	2.65	4.19	4.40	3.06	2.36	2.63	.59	.89	M1.11
District Average	.31	.68	.68	3.72	3.66	4.13	2.37	1.43	3.98	.68	.74	.76
District Normal	.58	.68	1.70	2.56	3.18	3.78	3.73	2.95	3.08	2.04	1.28	.76
<b>South Central</b>												
Fairmont	.27	M.36	2.23	M	3.14	4.08	1.84	1.48	2.70	.34	.72	.70
Faribault	.35	.77	1.77	2.19	4.74	4.24	2.42	1.65	1.56	.79	M1.09	1.17
Mankato	.37	.63	2.09	2.13	4.11	2.69	4.14	1.45	2.61	.67	.81	.79
Waseca	.38	.64	2.18	1.83	3.54	3.85	3.17	1.72	1.73	.69	M1.19	1.28
District Average	.29	.66	1.96	1.89	4.34	4.10	3.24	1.78	2.12	.57	1.00	.94
District Normal	.77	.78	1.89	2.80	3.48	4.01	4.08	3.79	3.24	2.26	1.50	1.04
<b>Southeast</b>												
Austin	.25	.67	2.34	2.33	5.41	5.46	5.01	1.21	2.29	M.39	1.43	.77
Caledonia	.61	.68	1.94	2.87	4.37	3.05	3.32	1.73	2.75	.60	3.26	.85
Rochester	.31	.65	2.28	2.57	4.65	4.74	3.39	.34	1.58	.52	.99	1.35
Winona	.42	.84	M2.57	2.64	5.00	3.30	2.79	.38	3.14	.67	M2.64	1.23
District Average	.39	.64	1.99	2.54	5.31	3.67	2.92	.96	2.22	.75	1.72	1.02
District Normal	.96	.86	1.96	2.91	3.72	4.03	4.19	3.98	3.77	2.49	1.75	1.23

M = Missing, insufficient, or partial data

T = Trace, too small to measure

Source: National Oceanic and Atmospheric Administration, U.S. Department of Commerce