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Staff Paper P85-29

July, 1985

MINNESOTA PRODUCTION AND CONSUMPTION FORECAST OF
MAJOR FEED GRAINS BY MINNESOTA COUNTY
FOR 1990 AND 2000

by

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Introduction

The objective of this report is to provide estimates of the volume of Minnesota grains and oilseeds by county that will be surplus to local feeding requirements and will require transportation to regional and national markets in the years 1990 and 2000. The intent is to provide a document that can facilitate the planning process of public and private entities that are concerned with the transportation and logistics infrastructure and equipment requirements or with the potential supplies of raw materials for processing.

Method and Data Sources

The analysis by county and crop reporting district (CRD) was done in a three step process, as follows:

- 1) Develop crop production trends and forecasts to the years 1990 and 2000.
- 2) Develop livestock production trends and forecasts to the years 1990 and 2000.
- 3) Determine consumption and compute marketable surpluses for the years 1990 and 2000.

The forecasts by county were developed from a two-step process. Each county was estimated as a percentage of Minnesota's production using a time series analysis of county percentages of total Minnesota production from 1970 to 1983. Minnesota's market share was estimated in a similar fashion as a percentage of the national total. Minnesota's percentage share projections are found in Appendix A. National production projections were then provided by the North Central Regional Research Committee for

Agricultural Transportation (NC-137). The model on which these national projections were based was provided by Michigan State University. The economic assumptions of the model are found in Appendix G. Projections for the State of Minnesota are found in Appendices B and C. Primary sources of production data were Agricultural Statistics published by the United States Department of Agriculture and Minnesota Agricultural Statistics issued by the Minnesota Agricultural Statistics Service. When data were not available by county from the Minnesota Agricultural Statistics, district and county percentages were estimated from the 1982 Census of Agriculture, volume 1. Feed rations were obtained in interviews with specialists in the Department of Animal Science at the University of Minnesota. Additional ration information was obtained from the Minnesota Farm Management Associations and from the Minnesota Dairy Herd Improvement Association. Definitions of livestock categories and the feeding rations used for northern and southern Minnesota are found in Appendices D, E, and F.

Crop Production Trends and Forecasts to 1990 and 2000 (Tables 1-10)

Production levels forecast for the years 1990 and 2000 for five grains (corn, soybean, wheat, barley, and oats) are presented in Table 1-10. Each crop is reported in two tables. The first table for each grain (Tables 1, 3, 5, 7, 9) reports the average actual production for 1979-1981, and forecasted levels for 1990, and 2000 for the nine CRD's. The next three page table in each group provides county production in thousands of bushels. The columns headed with "Ave. 79-81" are the average production level for each county or CRD from Minnesota Agricultural Statistics for the period 1979 to 1981. The columns headed "1990" and "2000" give the forecasted county or CRD production (and relative market share) for those

years. No adjustment for feed or seed use were made to these projections.

Livestock Production Trends and Forecasts to the Year 1990 and 2000 (Tables 11-26)

Production levels and forecasts for the livestock classes (milk cows, beef cows, cattle placed on feed, other cattle, all cattle, pigs, hens and pulleys of laying age, broilers, and turkeys) are presented on Tables 11-26. The tables are presented in the same format as crops except for "other cattle" and "all cattle" which are only reported by CRD.

Production and Consumption Trends and Forecasts to the Year 1990 & 2000 (Tables 27-34)

Estimates of production and consumption of the three major feedgrains are given in Tables 27-32. The production estimates are from Tables 1-10, and the consumption estimates are based on the livestock projections in Tables 11-26 and the respective rations found in Appendices E and F. Surplus and deficit is the difference between production and consumption for the individual county. No adjustment for seed use was made. Tables 33-34 only provide consumption estimates for 40 percent protein meal equivalent based on the livestock projections and the rations from Appendices E and F.

Symbols used throughout Tables 1-34: "a" designates inadequate data available
"b" designates production not projected

TABLE 1

CORN
(000 Bushels)

CROP REPORTING DISTRICT	AVE. 79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
NORTHWEST (1)	7724.17	10861.62	22601.35
NORTH CENTRAL (2)	1255.45	1790.19	3732.12
NORTHEAST (3)	a	b	b
WEST CENTRAL (4)	85043.09	107085.10	166763.00
CENTRAL (5)	122283.90	170225.90	283742.20
EAST CENTRAL (6)	24105.14	40370.72	79716.18
SOUTHWEST (7)	130003.03	141013.52	182905.38
SOUTH CENTRAL (8)	168824.91	198298.44	278910.34
SOUTH EAST (9)	114362.14	139703.36	250775.06
STATE TOTAL	653601.83	809348.85	1269145.63

TABLE 2

CORN
(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
BECKER	961.84	1616.21	3363.08
CLAY	1609.77	2647.09	5508.17
CLEARWATER	352.40	303.58	631.71
KITTSO	58.03	68.65	142.84
MAHNOMEN	435.20	628.67	1308.17
MARSHALL	556.60	333.02	692.96
NORMAN	771.87	1748.61	3638.59
PENNINGTON	203.57	185.95	386.94
POLK	1855.83	2463.74	5126.66
RED LAKE	729.60	785.08	1633.63
ROSEAU	189.47	81.24	169.06
NORTHWEST DIST. (1)	7724.17	10861.62	22601.35
BELTRAMMI	226.66	208.56	434.79
CASS	527.79	610.53	1272.80
HUBBARD	428.93	854.99	1782.46
ITASCA	35.24	67.67	141.07
KOOCHICHING	11.89	18.49	38.55
LAKE OF THE WOODS	24.93	29.93	62.40
NORTH CENTRAL DIST. (2)	1255.45	1790.19	3732.12
COOK	a	b	b
LAKE	a	b	b
ST. LOUIS	a	b	b
NORHTEAST DIST. (3)	a	b	b

TABLE 2

CORN

(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
BIG STONE	3811.04	5174.35	8057.99
CHIPPEWA	9325.74	14361.19	22364.58
DOUGLAS	3469.76	3393.53	5284.72
GRANT	2565.07	3256.46	5071.26
LAC QUI PARLE	10258.75	13883.59	21620.82
OTTER TAIL	8371.30	8109.56	12628.96
POPE	7525.46	8082.79	12587.27
STEVENS	8282.18	10276.96	16004.24
SWIFT	12079.86	16393.66	25529.74
TRAVERSE	1948.25	2813.13	4380.86
WILKIN	1512.07	1340.71	2087.87
YELLOW MEDICINE	15893.53	20001.36	31147.98
WEST CENTRAL DIST. (4)	85043.09	107085.10	166763.00
BENTON	4812.12	4808.88	8015.72
CARVER	6061.61	8610.03	14351.68
KANDIYOHI	14395.75	20284.12	33810.72
MCLEOD	10054.06	14578.15	24299.68
MEEKER	11556.19	15912.72	26524.22
MORRISON	5847.74	6024.30	10041.64
RENVILLE	18836.86	32705.51	54515.39
SCOTT	4773.60	6963.94	11607.89
SHERBURNE	2871.96	3414.73	5691.87
SIBLEY	12618.96	19958.99	33268.77
STEARNS	14736.19	17182.61	28640.94
TODD	5362.15	6088.98	10149.46
WADENA	1659.76	1746.52	2911.19
WRIGHT	8696.71	11948.16	19915.86
CENTRAL DIST. (5)	122283.90	170225.90	283742.20
AITKIN	300.49	637.86	1259.51
ANOKA	1754.40	3005.60	5938.86
CARLTON	29.24	125.55	247.12
CHISAGO	3259.64	4008.01	7915.82
CROW WING	674.73	1744.42	3443.74
HENNEPIN	3057.88	2385.91	4711.23
ISANTI	4367.90	8858.14	17489.73
KANABEC	1806.80	4060.08	8019.45
MILLE LACS	2739.33	6066.91	11981.34
PINE	1897.58	4098.84	8091.19
RAMSEY	65.52	111.83	223.21
WASHINHTON	4151.63	5267.57	10402.96
EAST CENTRAL DIST. (6)	24105.14	40370.72	79716.18

TABLE 2

CORN
(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
COTTONWOOD	16067.46	17630.92	22868.66
JACKSON	22350.64	23051.48	29899.54
LINCOLN	7214.00	7510.38	9741.54
LYON	13822.83	15357.78	19920.22
MURRAY	13493.79	15538.28	20154.34
NOBLES	17453.56	18688.52	24240.45
PIPESTONE	7398.86	8597.59	11151.74
REDWOOD	19521.51	21641.34	28070.49
ROCK	12680.50	12998.63	16860.22
SOUTHWEST DIST. (7)	130003.03	141013.52	182905.38
BLUE EARTH	16745.57	22177.70	30476.53
BROWN	12974.19	12728.78	14506.13
FARIBAULT	22283.54	24807.08	34094.00
FREEBORN	22308.86	28392.37	43897.70
LESUEUR	8507.93	7793.13	7993.57
MARTIN	23364.19	26207.12	36012.90
NICOLLET	11129.44	11546.92	14269.05
RICE	12170.93	16228.74	25715.53
STEELE	12832.04	16972.36	27096.14
WASECA	13938.35	18671.78	29282.80
WATONWAN	12569.86	12770.42	15565.99
SOUTH CENTRAL DIST. (8)	168824.91	198298.44	278910.34
DAKOTA	9945.05	12327.42	22018.05
DODGE	13048.61	17891.81	36204.40
FILLMORE	19321.48	23727.22	42375.97
GOODHUE	13576.04	14238.57	20413.09
HOUSTON	7056.83	7627.80	11721.23
MOWER	20866.97	26800.69	51797.59
OLMSTED	14255.01	16602.35	29651.64
WABASHA	7615.37	9660.49	17253.32
WINONA	8676.88	10829.80	19342.28
SOUTHEAST DIST. (9)	114362.14	139703.36	250775.06
STATE TOTAL	653601.83	809348.92	1269145.60

TABLE 3

SOYBEANS
(000 Bushels)

CROP REPORTING DISTRICT	AVE.79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
NORTHWEST (1)	1345.23	2465.30	2913.17
NORTH CENTRAL (2)	20.54	42.24	92.56
NORTHEAST (3)	a	b	b
WEST CENTRAL (4)	24431.40	39749.36	73677.53
CENTRAL (5)	25799.02	40296.43	72201.00
EAST CENTRAL (6)	2218.27	3818.04	7835.13
SOUTHWEST (7)	39790.70	63432.28	109760.35
SOUTH CENTRAL (8)	45275.68	49053.24	53092.09
SOUTH EAST (9)	13685.14	13453.99	13241.47
STATE TOTAL	152565.98	212310.88	332813.30

TABLE 4

SOYBEANS
(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
BECKER	108.90	324.63	383.80
CLAY	660.67	815.92	964.26
CLEARWATER	1.27	2.49	2.91
KITTSO	14.87	51.35	60.59
MAHNOMEN	13.87	34.88	41.08
MARSHALL	212.73	580.75	686.34
NORMAN	185.30	128.76	152.07
PENNINGTON	4.71	8.04	9.61
POLK	137.90	500.97	591.96
RED LAKE	6.63	9.81	11.65
ROSEAU	2.07	7.64	9.03
NORTHWEST DIST. (1)	1345.23	2465.30	2913.17
BELTRAMMI	2.21	1.44	3.15
CASS	5.27	23.23	50.89
HUBBARD	5.27	12.71	27.86
ITASCA	5.06	3.91	8.56
KOOCHICHING	.00	.00	.00
LAKE OF THE WOODS	2.74	.96	2.10
NORTH CENTRAL DIST. (2)	20.54	42.24	92.56
COOK	a	b	b
LAKE	a	b	b
ST. LOUIS	a	b	b
NORRHEAST DIST. (3)	a	b	b

TABLE 4

SOYBEANS
(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE.79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
BIG STONE	1276.91	1499.74	2779.85
CHIPPEWA	2882.39	6121.80	11347.08
DOUGLAS	604.90	672.96	1247.36
GRANT	1431.09	1999.00	3705.24
LAC QUI PARLE	3860.77	6536.38	12115.53
OTTER TAIL	1350.84	1243.36	2304.63
POPE	1079.50	1402.36	2599.34
STEVENS	1701.52	2466.85	4572.43
SWIFT	2935.04	5147.54	9541.24
TRAVERSE	1338.79	2063.79	3825.34
WILKIN	956.71	2074.52	3845.23
YELLOW MEDICINE	5012.93	8521.47	15794.99
WEST CENTRAL DIST.(4)	24431.40	39749.36	73677.53
BENTON	129.46	237.35	519.85
CARVER	1002.73	2070.83	4958.04
KANDIYOH	3057.08	4082.03	6164.52
MCLEOD	2991.34	4163.02	7374.61
MEEKER	2585.94	3836.62	6797.00
MORRISON	66.59	104.37	184.83
RENVILLE	7409.38	12663.56	22434.29
SCOTT	1172.51	2132.49	4454.80
SHERBURNE	464.02	576.64	1021.64
SIBLEY	4177.97	5419.47	7278.58
STEARNS	827.84	2019.25	5021.58
TODD	247.62	658.85	1703.22
WADENA	60.03	161.59	442.59
WRIGHT	1606.45	2169.56	3843.98
CENTRAL DIST.(5)	25799.02	40296.43	72201.00
AITKIN	9.00	12.18	25.07
ANOKA	149.37	286.54	588.42
CARLTON	2.77	9.74	19.88
CHISAGO	425.17	687.13	1410.32
CROW WING	34.23	66.85	137.11
HENNEPIN	452.53	838.40	1720.59
ISANTI	316.83	281.85	578.23
KANABEC	28.40	51.62	105.77
MILLE LACS	102.13	274.10	562.56
PINE	62.23	166.50	341.61
RAMSEY	3.58	b	b
WASHINHTON	632.07	1143.12	2345.84
EAST CENTRAL DIST.(6)	2218.27	3818.04	7835.13

TABLE 4

SOYBEANS
(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE.79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
COTTONWOOD	5740.52	8505.63	13289.78
JACKSON	6741.34	8183.40	9639.15
LINCOLN	1422.32	3251.54	7799.57
LYON	4028.61	8158.66	17174.20
MURRAY	4548.44	8095.23	15501.45
NOBLES	5670.29	8319.78	13283.20
PIPESTONE	1560.95	3552.21	8237.51
REDWOOD	7015.34	9203.39	11433.74
ROCK	3062.85	6161.81	13401.74
SOUTHWEST DIST. (7)	39790.70	63432.28	109760.35
BLUE EARTH	5912.69	5806.92	5448.31
BROWN	4213.45	4686.55	5185.50
FARIBAULT	6166.59	5072.11	3469.57
FREEBORN	4732.08	5377.22	5950.03
LESUEUR	2403.10	2997.15	3762.11
MARTIN	6931.57	7679.78	8497.92
NICOLLET	3469.48	4400.08	5628.29
RICE	1912.81	2198.08	2773.53
STEELE	2860.43	3542.62	4582.38
WASECA	2904.66	3026.58	3076.16
WATONWAN	3768.79	4264.69	4718.82
SOUTH CENTRAL DIST. (8)	45275.68	49053.24	53092.09
DAKOTA	1911.01	2363.73	2804.07
DODGE	2347.37	2435.31	2605.84
FILLMORE	1273.96	926.17	602.49
GOODHUE	1639.44	1305.04	1019.46
HOUSTON	96.37	100.10	200.00
MOWER	4451.83	4462.79	4219.76
OLMSTED	1170.83	1082.51	1041.71
WABASHA	534.73	510.98	491.66
WINONA	259.59	266.52	256.49
SOUTHEAST DIST. (9)	13685.14	13453.99	13241.47
STATE TOTAL	152565.98	212310.88	332813.30

TABLE 5

WHEAT
(000 Bushels)

CROP REPORTING DISTRICT	AVE. 79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
NORTHWEST (1)	61999.03	78721.65	100365.77
NORTH CENTRAL (2)	899.70	1506.24	2914.45
NORTHEAST (3)	29.27	61.92	122.60
WEST CENTRAL (4)	32975.90	44509.31	66474.05
CENTRAL (5)	8225.43	18396.95	37601.42
EAST CENTRAL (6)	311.30	583.23	1122.79
SOUTHWEST (7)	4161.07	9311.12	20105.58
SOUTH CENTRAL (8)	2452.77	4303.74	6427.58
SOUTH EAST (9)	1267.83	1887.89	2819.53
STATE TOTAL	112322.30	159282.05	237953.77

TABLE 6

WHEAT
(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
BECKER	2472.52	4198.23	5349.45
CLAY	7426.43	6193.82	7898.73
CLEARWATER	263.62	321.97	411.50
KITTSOON	8074.44	11024.18	14051.10
MAHONOMEN	1154.61	1505.16	1916.98
MARSHALL	11491.33	14697.33	18738.15
NORMAN	7043.15	8564.13	10919.72
PENNINGTON	3064.55	5649.07	7206.21
POLK	13920.70	12984.35	16550.19
RED LAKE	2056.14	2618.28	3342.15
ROSEAU	5031.47	10965.93	13980.85
NORTHWEST DIST. (1)	61999.03	78721.65	100365.77
BELTRAMMI	185.23	263.09	509.07
CASS	11.17	36.63	70.88
HUBBARD	28.57	90.69	175.48
ITASCA	32.77	37.01	71.61
KOOCHICHING	102.57	147.22	284.86
LAKE OF THE WOODS	539.33	931.59	1802.56
NORTH CENTRAL DIST. (2)	899.70	1506.24	2914.45
COOK	a	b	b
LAKE	a	b	b
ST. LOUIS	29.27	61.92	122.60
NORHTEAST DIST. (3)	29.27	61.92	122.60

TABLE 6

WHEAT
(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE.79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
BIG STONE	2400.41	3144.58	4699.72
CHIPPEWA	2244.67	5267.68	7863.88
DOUGLAS	794.92	641.82	957.23
GRANT	3596.12	3185.09	4759.54
LAC QUI PARLE	3218.22	6522.39	9738.45
OTTER TAIL	2733.44	1874.29	2798.56
POPE	1308.55	1767.46	2639.02
STEVENS	3198.60	5375.83	7976.89
SWIFT	2745.97	3649.76	5450.87
TRAVERSE	3872.89	5212.49	7784.11
WILKIN	5131.58	3723.65	5563.88
YELLOW MEDICINE	1730.54	4144.26	6188.73
WEST CENTRAL DIST.(4)	32975.90	44509.31	66474.05
BENTON	29.90	52.06	106.41
CARVER	205.60	477.40	975.76
KANDIYOHI	1499.96	3108.90	6354.26
MCLEOD	916.50	1469.18	3002.85
MEEKER	767.43	2049.79	4189.55
MORRISON	42.30	108.54	221.85
RENVILLE	3074.73	6613.70	13517.71
SCOTT	203.97	450.36	920.48
SHERBURNE	110.34	206.97	423.02
SIBLEY	695.13	2037.83	4165.11
STEARNS	296.67	727.78	1487.51
TODD	170.87	430.30	879.50
WADENA	33.96	94.93	194.02
WRIGHT	178.06	569.39	1163.76
CENTRAL DIST.(5)	8225.43	18396.95	37601.42
AITKIN	39.84	63.79	145.35
ANOKA	19.03	19.02	30.57
CARLTON	9.22	26.19	65.26
CHISAGO	9.07	24.77	39.81
CROW WING	3.72	9.34	15.02
HENNEPIN	81.91	178.54	364.21
ISANTI	22.45	28.81	46.30
KANABEC	13.97	b	b
MILLE LACS	16.35	60.88	139.96
PINE	4.46	b	b
RAMSEY	4.76	3.67	5.89
WASHINHTON	86.52	168.22	270.40
EAST CENTRAL DIST.(6)	311.30	583.23	1122.79

TABLE 6

WHEAT

(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
COTTONWOOD	438.86	742.28	1602.82
JACKSON	88.00	178.21	384.82
LINCOLN	1096.78	2332.90	5037.45
LYON	855.35	1874.51	4047.66
MURRAY	398.06	553.45	1195.08
NOBLES	105.67	176.91	382.01
PIPESTONE	164.67	235.11	507.67
REDWOOD	939.95	3137.94	6775.78
ROCK	73.73	79.80	172.30
SOUTHWEST DIST. (7)	4161.07	9311.12	20105.58
BLUE EARTH	295.92	486.28	636.01
BROWN	327.63	806.05	1352.89
FARIBAULT	171.48	277.59	362.84
FREEBORN	108.30	44.97	100.00
LESUEUR	518.78	925.96	1399.04
MARTIN	19.37	41.88	54.83
NICOLLET	305.95	617.76	807.95
RICE	224.70	387.12	506.30
STEELE	232.27	282.84	369.91
WASECA	141.01	50.00	100.00
WATONWAN	107.37	383.51	737.89
SOUTH CENTRAL DIST. (8)	2452.77	4303.74	6427.58
DAKOTA	367.60	389.42	284.80
DODGE	133.13	207.12	290.75
FILLMORE	102.47	219.28	437.65
GOODHUE	180.23	106.78	100.00
HOUSTON	25.83	59.09	114.47
MOWER	239.80	541.20	968.73
OLMSTED	65.77	141.54	198.69
WABASHA	52.73	28.66	50.00
WINDNA	100.27	194.85	374.41
SOUTHEAST DIST. (9)	1267.83	1887.89	2819.53
STATE TOTAL	112322.30	159282.04	237953.76

TABLE 7

OATS
(000 Bushels)

CROP REPORTING DISTRICT	AVE. 79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
NORTHWEST (1)	11739.63	11391.51	16638.04
NORTH CENTRAL (2)	1951.64	1685.91	2462.38
NORTHEAST (3)	222.07	158.38	231.32
WEST CENTRAL (4)	19841.36	16542.39	24161.22
CENTRAL (5)	22374.35	17093.27	24965.82
EAST CENTRAL (6)	4214.84	3234.75	4724.56
SOUTHWEST (7)	8167.19	7375.16	10771.90
SOUTH CENTRAL (8)	5380.90	4451.56	6501.79
SOUTH EAST (9)	11997.77	9121.47	13322.49
STATE TOTAL	85889.75	71054.40	103779.52

TABLE 8

DATS
(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
BECKER	1443.85	1098.60	1604.57
CLAY	969.87	974.32	1423.05
CLEARWATER	810.50	531.53	776.33
KITTSOON	551.30	578.23	844.55
MAHNOMEN	909.47	751.38	1097.45
MARSHALL	1563.01	1628.53	2378.57
NORMAN	1196.34	1215.25	1774.95
PENNINGTON	849.37	919.41	1342.86
POLK	988.08	1463.70	2137.82
RED LAKE	494.24	614.34	897.29
ROSEAU	1963.58	1616.23	2360.60
NORTHWEST DIST. (1)	11739.63	11391.51	16638.04
BELTRAMMI	526.30	579.40	846.25
CASS	160.30	130.10	190.02
HUBBARD	322.33	274.70	401.22
ITASCA	204.97	156.76	228.95
KOOCHICHING	265.20	167.28	244.32
LAKE OF THE WOODS	472.53	377.68	551.62
NORTH CENTRAL DIST. (2)	1951.64	1685.91	2462.38
COOK	1.94	b	b
LAKE	4.00	b	b
ST. LOUIS	216.10	157.52	230.07
NORRHEAST DIST. (3)	222.07	158.38	231.32

TABLE 8

OATS
(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE.79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
BIG STONE	1006.33	962.27	1405.46
CHIPPEWA	686.91	694.78	1014.77
DOUGLAS	3017.63	1874.75	2738.19
GRANT	589.71	836.22	1221.35
LAC QUI PARLE	1073.99	1126.04	1644.65
OTTER TAIL	6341.93	4233.20	6182.86
POPE	2723.43	1739.76	2541.04
STEVENS	1025.84	1185.59	1731.63
SWIFT	1111.67	996.02	1454.75
TRAVERSE	821.63	1037.37	1515.15
WILKIN	530.10	933.16	1362.93
YELLOW MEDICINE	912.21	923.40	1348.68
WEST CENTRAL DIST. (4)	19841.36	16542.39	24161.22
BENTON	904.53	686.98	1003.38
CARVER	883.38	695.87	1016.36
KANDIYOHKI	1940.64	1502.33	2194.25
MCLEOD	1264.64	1102.34	1610.05
MEEKER	1231.24	1135.85	1658.98
MORRISON	1977.80	1241.66	1813.52
RENVILLE	1376.11	1342.16	1960.32
SCOTT	564.73	468.01	683.56
SHERBURNE	203.63	138.28	201.97
SIBLEY	910.19	958.93	1400.58
STEARNS	5684.65	4284.09	6257.18
TODD	3039.71	1942.99	2837.86
WADENA	737.26	405.97	592.94
WRIGHT	1655.84	1187.64	1734.63
CENTRAL DIST. (5)	22374.35	17093.27	24965.82
AITKIN	162.07	105.00	153.36
ANDKA	69.84	62.37	91.09
CARLTON	277.37	144.46	211.00
CHISAGO	366.07	345.44	504.54
CROW WING	306.47	221.22	323.11
HENNEPIN	371.13	338.23	494.00
ISANTI	297.40	287.15	419.40
KANABEC	506.77	331.72	484.50
MILLE LACS	671.23	498.86	728.62
PINE	748.60	531.76	776.67
RAMSEY	1.11	7.70	11.24
WASHINHTON	428.33	360.84	527.02
EAST CENTRAL DIST. (6)	4214.84	3234.75	4724.56

TABLE 8

OATS
(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE.79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
COTTONWOOD	492.60	462.35	675.29
JACKSON	338.37	346.04	505.42
LINCOLN	1343.00	1166.09	1703.15
LYON	1188.30	1096.10	1600.92
MURRAY	1168.56	955.75	1395.93
NOBLES	804.17	801.16	1170.15
PIPESTONE	1268.53	1063.06	1552.66
REDWOOD	755.24	800.43	1169.07
ROCK	808.43	684.27	999.42
SOUTHWEST DIST. (7)	8167.19	7375.16	10771.90
BLUE EARTH	298.30	296.52	433.08
BROWN	843.97	673.34	983.46
FARIBAULT	371.27	309.7	452.33
FREEBORN	681.70	552.93	807.59
LESUEUR	265.13	283.88	414.62
MARTIN	464.97	367.16	536.27
NICOLLET	549.57	442.17	645.82
RICE	848.60	571.00	833.98
STEELE	569.40	487.71	712.34
WASECA	268.33	229.39	335.04
WATONWAN	219.66	237.76	347.26
SOUTH CENTRAL DIST. (8)	5380.90	4451.56	6501.79
DAKOTA	810.63	817.92	1194.63
DODGE	794.47	685.84	1001.72
FILLMORE	1735.00	1361.29	1988.25
GOODHUE	1954.83	1431.80	2091.23
HOUSTON	848.00	588.15	859.03
MOWER	1290.53	1116.47	1630.67
OLMSTED	1476.06	1089.92	1591.90
WABASHA	1635.63	1032.09	1507.44
WINONA	1452.61	998.16	1457.88
SOUTHEAST DIST. (9)	11997.77	9121.47	13322.49
STATE TOTAL	85889.73	71054.40	103779.50

TABLE 9

BARLEY
(000 Bushels)

CROP REPORTING DISTRICT	AVE. 79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
NORTHWEST (1)	32157.20	43941.65	67898.31
NORTH CENTRAL (2)	495.90	623.00	1028.66
NORTHEAST (3)	67.20	65.47	139.39
WEST CENTRAL (4)	10489.16	13477.57	21757.81
CENTRAL (5)	384.90	476.99	798.40
EAST CENTRAL (6)	118.23	159.83	245.25
SOUTHWEST (7)	195.67	269.50	405.88
SOUTH CENTRAL (8)	122.03	154.11	253.14
SOUTH EAST (9)	345.60	403.48	716.88
STATE TOTAL	44375.89	59571.60	93243.72

TABLE 10

BARLEY
(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
BECKER	2544.41	2779.75	4295.25
CLAY	4414.19	5903.12	9121.46
CLEARWATER	203.65	223.22	344.92
KITTSO	1786.17	4156.88	6423.18
MAHNOMEN	1891.87	1906.19	2945.43
MARSHALL	4131.85	6441.41	9953.21
NORMAN	4383.73	5435.14	8398.34
PENNINGTON	2125.46	2010.77	3107.03
POLK	8094.87	12438.12	19219.30
RED LAKE	1239.60	1298.92	2007.07
ROSEAU	1341.41	1348.13	2083.12
NORTHWEST DIST. (1)	32157.20	43941.65	67898.31
BELTRAMMI	139.53	176.81	291.94
CASS	2.40	39.72	65.59
HUBBARD	94.97	141.65	233.89
ITASCA	1.27	b	b
KOOCHICHING	64.30	82.60	136.38
LAKE OF THE WOODS	172.10	182.21	300.85
NORTH CENTRAL DIST. (2)	495.90	623.00	1028.66
COOK	a	b	b
LAKE	a	b	b
ST. LOUIS	67.20	b	b
NORHTEAST DIST. (3)	67.20	65.47	139.39

TABLE 10

BARLEY
(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE.79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
BIG STONE	443.26	555.28	884.24
CHIPPEWA	79.86	124.94	199.08
DOUGLAS	453.13	621.05	988.89
GRANT	1541.46	1927.29	3068.50
LAC QUI PARLE	56.86	106.88	221.06
OTTER TAIL	1904.24	2629.34	4889.20
POPE	169.60	247.72	394.25
STEVENS	996.75	1520.40	2832.87
SWIFT	140.03	219.68	349.87
TRAVERSE	1340.51	1140.47	949.73
WILKIN	3338.30	4349.62	6925.08
YELLOW MEDICINE	25.13	34.64	55.26
WEST CENTRAL DIST.(4)	10489.16	13477.57	21757.81
BENTON	20.36	54.77	129.70
CARVER	24.89	39.43	90.79
KANDIYOH	41.57	29.16	9.70
MCLEOD	6.36	16.83	26.72
MEEKER	19.94	8.80	b
MORRISON	24.04	20.21	32.10
RENVILLE	13.29	42.16	66.95
SCOTT	6.22	8.36	13.28
SHERBURNE	5.66	11.29	24.09
SIBLEY	12.16	21.21	33.68
STEARNS	112.84	135.62	215.36
TODD	40.58	14.15	b
WADENA	44.54	60.69	133.29
WRIGHT	12.44	14.32	22.74
CENTRAL DIST.(5)	384.90	476.99	798.40
AITKIN	25.88	18.00	22.62
ANOKA	4.60	6.22	7.81
CARLTON	20.70	30.89	55.31
CHISAGO	5.18	22.98	39.37
CROW WING	8.74	9.10	11.44
HENNEPIN	4.37	b	b
ISANTI	9.43	8.95	11.24
KANABEC	9.43	14.76	18.56
MILLE LACS	8.74	33.58	59.60
PINE	9.66	15.35	19.30
RAMSEY	a	b	b
WASHINHTON	11.50	b	b
EAST CENTRAL DIST.(6)	118.23	159.83	245.25

TABLE 10

BARLEY
(000 Bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81 PRODUCTION	1990 PRODUCTION	2000 PRODUCTION
COTTONWOOD	5.28	19.62	39.37
JACKSON	.00	5.86	12.39
LINCOLN	116.36	82.04	68.03
LYON	28.51	65.74	118.82
MURRAY	8.87	11.76	16.11
NOBLES	9.29	34.96	65.97
PIPESTONE	12.67	b	b
REDWOOD	9.29	22.92	31.41
ROCK	5.17	26.61	53.78
SOUTHWEST DIST. (7)	195.67	269.50	405.88
BLUE EARTH	30.74	42.80	76.64
BROWN	14.96	36.02	64.96
FARIBAULT	a	3.45	4.38
FREEBORN	b	b	b
LESUEUR	12.06	11.38	14.44
MARTIN	5.80	b	b
NICOLLET	a	6.91	8.78
RICE	40.60	38.09	64.32
STEELE	6.03	b	b
WASECA	6.03	5.95	7.55
WATONWAN	5.80	9.51	12.07
SOUTH CENTRAL DIST. (8)	122.03	154.11	253.14
DAKOTA	49.27	47.45	77.99
DODGE	8.80	3.06	b
FILLMORE	18.30	21.68	35.64
GOODHUE	137.96	133.20	218.92
HOUSTON	20.06	29.09	47.79
MOWER	8.62	b	b
OLMSTED	8.45	6.68	b
WABASHA	45.75	86.25	174.70
WINDNA	48.39	75.76	161.84
SOUTHEAST DIST. (9)	345.60	403.48	716.88
STATE TOTAL	44375.89	59571.60	93243.71

TABLE 11

MILK COWS

CROP REPORTING DISTRICT	AVE. 79-81	1990	2000
NORTHWEST (1)	49287	36298	27524
NORTH CENTRAL (2)	11516	6104	2263
NORTHEAST (3)	3712	2602	1978
WEST CENTRAL (4)	102620	92768	90787
CENTRAL (5)	299145	297908	315657
EAST CENTRAL (6)	81326	72772	70901
SOUTHWEST (7)	54359	43570	36940
SOUTH CENTRAL (8)	90598	69933	56851
SOUTH EAST (9)	170758	168182	179303
STATE TOTAL	863325	790142	782207

TABLE 12

MILK COWS

CROP REPORTING COUNTY & DISTRICT	AVE.79-81	1990	2000
BECKER	12054	10044	8482
CLAY	4007	3118	2484
CLEARWATER	3639	3131	2672
KITTSOON	901	156	b
MAHNOMEN	3205	1969	1165
MARSHALL	3305	1819	842
NORMAN	3773	2691	1887
PENNINGTON	3138	2142	1499
POLK	7079	5150	3895
RED LAKE	3239	2608	1972
ROSEAU	4942	3466	2622
NORTHWEST DIST. (1)	49287	36298	27524
BELTRAMMI	3662	2332	995
CASS	3530	1602	500
HUBBARD	1880	1040	401
ITASCA	1319	471	92
KOOCHICHING	495	256	94
LAKE OF THE WOODS	626	400	178
NORTH CENTRAL DIST. (2)	11516	6104	2263
COOK			
LAKE	100	128	146
ST. LOUIS	3612	2474	1831
NORHTEAST DIST. (3)	3712	2602	1978

TABLE 12

MILK COWS

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
BIG STONE	2436	1223	242
CHIPPEWA	2636	1831	1239
DOUGLAS	19155	17734	17571
GRANT	3904	3191	2808
LAC QUI PARLE	4104	3703	3669
OTTER TAIL	43317	42827	44956
POPE	12681	11320	11216
STEVENS	2069	757	b
SWIFT	4939	4442	4401
TRAVERSE	1234	883	636
WILKIN	2002	985	213
YELLOW MEDICINE	4138	3866	3831
WEST CENTRAL DIST. (4)	102620	92768	90787
BENTON	17081	20832	25975
CARVER	23341	21395	20770
KANDIYOHKI	12319	10078	8270
MCLEOD	22376	18395	15492
MEEKER	16116	13477	11483
MORRISON	33330	37465	44719
RENVILLE	5494	2159	b
SCOTT	12120	10706	9324
SHERBURNE	4062	4397	4993
SIBLEY	16249	13620	12045
STEARNS	72122	81677	96812
TODD	32764	36046	40577
WADENA	8091	8844	10173
WRIGHT	23674	18812	15018
CENTRAL DIST. (5)	299145	297908	315657
AITKIN	5045	3394	2287
ANDKA	1804	845	134
CARLTON	6014	5365	5226
CHISAGO	7818	5387	3817
CROW WING	4644	4594	4977
HENNEPIN	7517	5858	5143
ISANTI	5379	4952	4824
KANABEC	9723	10462	11934
MILLE LACS	14634	16853	19648
PINE	13899	12753	12423
RAMSEY	66	49	48
WASHINGTON	4777	2258	436
EAST CENTRAL DIST. (6)	81326	72772	70901

TABLE 12

MILK COWS

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
COTTONWOOD	3858	2469	1666
JACKSON	3147	2089	1413
LINCOLN	6160	5263	4702
LYON	5415	4649	4183
MURRAY	8258	6596	5565
NOBLES	6938	4494	2876
PIPESTONE	8225	8604	8880
REDWOOD	5551	3824	2735
ROCK	6803	5578	4917
SOUTHWEST DIST. (7)	54359	43570	36940
BLUE EARTH	3802	2593	1746
BROWN	12008	10322	9114
FARIBAULT	4269	3314	2677
FREEBORN	8806	5535	3378
LESUEUR	8873	7996	7283
MARTIN	3569	1111	b
NICOLLET	8873	7873	7184
RICE	19147	16031	14124
STEELE	11374	8169	6108
WASECA	7205	5808	4978
WATONWAN	2668	1173	256
SOUTH CENTRAL DIST. (8)	90598	69933	56851
DAKOTA	9849	6436	3844
DODGE	12635	11338	10634
FILLMORE	26066	27506	30850
GOODHUE	30576	32274	36386
HOUSTON	17410	16818	17975
MOWER	9252	7083	5029
OLMSTED	16847	15235	14991
WABASHA	20296	21799	25340
WINONA	27824	29680	34248
SOUTHEAST DIST. (9)	170758	168182	179303
STATE TOTAL	863325	790142	782207

TABLE 13

BEEF COWS

CROP REPORTING DISTRICT	AVE. 79-81	1990	2000
NORTHWEST (1)	90561	80011	80926
NORTH CENTRAL (2)	33775	28569	28037
NORTHEAST (3)	4982	4477	4764
WEST CENTRAL (4)	78141	63606	59687
CENTRAL (5)	64546	51966	48764
EAST CENTRAL (6)	45042	34945	31455
SOUTHWEST (7)	83475	74369	75824
SOUTH CENTRAL (8)	38182	28450	24776
SOUTH EAST (9)	114623	81911	68716
STATE TOTAL	553331	448308	422953

TABLE 14

BEEF COWS

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
BECKER	9346	7734	7806
CLAY	7726	4934	3488
CLEARWATER	9076	8061	8136
KITTSOON	6309	5126	4638
MAHNOMEN	4622	3348	2701
MARSHALL	8637	7937	8010
NORMAN	7558	6537	6597
PENNINGTON	4858	4002	3488
POLK	15318	15041	16975
RED LAKE	4150	2512	1156
ROSEAU	12956	14774	17926
NORTHWEST DIST. (1)	90561	80011	80926
BELTRAMMI	9153	7671	7412
CASS	8443	6994	6758
HUBBARD	4492	4166	4306
ITASCA	4829	3060	2096
KOOCHICHING	3006	2401	2320
LAKE OF THE WOODS	3850	4273	5142
NORTH CENTRAL DIST. (2)	33775	28569	28037
COOK	201	265	410
LAKE	201	316	470
ST. LOUIS	4578	3894	3883
NORHTEAST DIST. (3)	4982	4477	4764

TABLE 14

BEEF COWS

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
BIG STONE	5414	5116	5320
CHIPPEWA	3041	2300	1881
DOUGLAS	6016	4863	4566
GRANT	2373	1983	1862
LAC QUI PARLE	9725	7782	7308
OTTER TAIL	20254	16201	15214
POPE	6417	4090	2679
STEVENS	4913	5171	5946
SWIFT	5915	4175	3198
TRAVERSE	3308	2592	2434
WILKIN	2774	1819	1351
YELLOW MEDICINE	7987	7509	7923
WEST CENTRAL DIST. (4)	78141	63606	59687
BENTON	4371	2066	609
CARVER	2715	2137	2020
KANDIYOHKI	5067	4351	4357
MCLEOD	2384	1710	1441
MEEKER	3510	2893	2734
MORRISON	6987	3219	836
RENVILLE	3245	2475	2132
SCOTT	2616	1482	883
SHERBURNE	2616	2191	2072
SIBLEY	3212	2769	2759
STEARNS	9537	10340	11985
TODD	8246	6786	6415
WADENA	4073	4006	4415
WRIGHT	5961	5531	6099
CENTRAL DIST. (5)	64546	51966	48764
AITKIN	6477	5400	5073
ANOKA	1561	1046	913
CARLTON	3919	3401	3291
CHISAGO	4285	4230	4656
CROW WING	3089	2033	1774
HENNEPIN	2192	759	4
ISANTI	1959	964	503
KANABEC	7507	5992	5541
MILLE LACS	3919	3486	3041
PINE	7075	5575	4863
RAMSEY	166	95	83
WASHINHTON	2889	1959	1709
EAST CENTRAL DIST. (6)	45042	34945	31455

TABLE 14

BEEF COWS

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
COTTONWOOD	7089	7053	7894
JACKSON	6823	4878	3828
LINCOLN	10084	10229	11780
LYON	11416	12992	15608
MURRAY	9818	7384	6063
NOBLES	9153	9140	10170
PIPESTONE	10018	6225	3466
REDWOOD	7555	7412	8737
ROCK	11516	9054	8274
SOUTHWEST DIST. (7)	83475	74369	75824
BLUE EARTH	4038	3683	3208
BROWN	2469	1789	1558
FARIBAULT	3104	2489	2167
FREEBORN	5373	3798	3308
LESUEUR	4372	3226	2809
MARTIN	4906	3158	2750
NICOLLET	2603	2035	1773
RICE	3237	2192	1909
STEELE	2236	1618	1409
WASECA	2603	2014	1754
WATONWAN	3237	2442	2127
SOUTH CENTRAL DIST. (8)	38182	28450	24776
DAKOTA	3366	2508	2104
DODGE	3762	2550	2139
FILLMORE	34555	24457	20517
GOODHUE	11518	8144	6832
HOUSTON	16204	11647	9770
MOWER	5742	5062	4246
OLMSTED	13597	9287	7791
WABASHA	14983	9722	8156
WINONA	10891	8530	7156
SOUTHEAST DIST. (9)	114623	81911	68716
STATE TOTAL	553331	448308	422953

TABLE 15

CATTLE PLACED ON FEED

CROP REPORTING DISTRICT	AVE.79-81	1990	2000
NORTHWEST (1)	30451	34362	39876
NORTH CENTRAL (2)	4957	5593	6491
NORTHEAST (3)	708	799	927
WEST CENTRAL (4)	131316	148182	171963
CENTRAL (5)	85382	96348	111810
EAST CENTRAL (6)	15324	17292	20068
SOUTHWEST (7)	279425	315314	365917
SOUTH CENTRAL (8)	145176	163822	190113
SOUTH EAST (9)	96351	108725	126174
STATE TOTAL	789093	890442	1033344

TABLE 16

CATTLE PLACED ON FEED

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
BECKER	2560	2889	3353
CLAY	5467	6169	7159
CLEARWATER	2214	2499	2900
KITTSOON	692	780	906
MAHNOMEN	2422	2733	3172
MARSHALL	2560	2889	3353
NORMAN	2699	3045	3534
PENNINGTON	2214	2499	2900
POLK	6851	7731	8972
RED LAKE	830	937	1087
ROSEAU	1937	2186	2537
NORTHWEST DIST. (1)	30451	34362	39876
BELTRAMMI	2134	2408	2795
CASS	963	1087	1262
HUBBARD	963	1087	1262
ITASCA	619	699	811
KOOCHICHING	137	155	180
LAKE OF THE WOODS	137	155	180
NORTH CENTRAL DIST. (2)	4957	5593	6491
COOK	a	b	b
LAKE	a	b	b
ST. LOUIS	708	799	927
NORHTEAST DIST. (3)	708	799	927

TABLE 16

CATTLE PLACED ON FEED

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
BIG STONE	5561	6276	7283
CHIPPEWA	14244	16073	18653
DOUGLAS	2441	2755	3197
GRANT	8071	9108	10570
LAC QUI PARLE	17567	19824	23005
OTTER TAIL	9970	11251	13057
POPE	5969	6735	7816
STEVENS	29234	32988	38283
SWIFT	13226	14925	17320
TRAVERSE	4612	5204	6040
WILKIN	678	765	888
YELLOW MEDICINE	19738	22273	25847
WEST CENTRAL DIST. (4)	131316	148182	171963
BENTON	1641	1852	2150
CARVER	5610	6330	7346
KANDIYOHI	12862	14514	16843
MCLEOD	4310	4863	5644
MEEKER	4789	5404	6271
MORRISON	2668	3010	3494
RENVILLE	15256	17216	19979
SCOTT	4310	4863	5644
SHERBURNE	2805	3165	3673
SIBLEY	9578	10808	12542
STEARNS	11699	13201	15320
TODD	2599	2933	3404
WADENA	820	926	1075
WRIGHT	6431	7257	8421
CENTRAL DIST. (5)	85382	96348	111810
AITKIN	203	229	266
ANOKA	1017	1147	1331
CARLTON	678	765	887
CHISAGO	2915	3290	3818
CROW WING	406	459	532
HENNEPIN	1491	1683	1953
ISANTI	1220	1377	1598
KANABEC	1152	1300	1509
MILLE LACS	1288	1453	1687
PINE	1084	1224	1420
RAMSEY	406	459	532
WASHINGTON	3458	3902	4528
EAST CENTRAL DIST. (6)	15324	17292	20068

TABLE 16

CATTLE PLACED ON FEED

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
COTTONWOOD	34164	38551	44738
JACKSON	25877	29201	33887
LINCOLN	20919	23606	27394
LYON	38782	43763	50787
MURRAY	36337	41004	47585
NOBLES	31379	35409	41092
PIPESTONE	19357	21843	25349
REDWOOD	34503	38935	45183
ROCK	38103	42997	49897
SOUTHWEST DIST. (7)	279425	315314	365917
BLUE EARTH	15608	17612	20439
BROWN	15131	17074	19814
FARIBAULT	15608	17610	20439
FREEBORN	9269	10460	12138
LESUEUR	7701	8691	10085
MARTIN	35783	40378	46859
NICOLLET	10360	11690	13566
RICE	8247	9306	10799
STEELE	7088	7998	9282
WASECA	6270	7075	8211
WATONWAN	14108	15920	18475
SOUTH CENTRAL DIST. (8)	145176	163822	190113
DAKOTA	11096	12521	14531
DODGE	8119	9162	10632
FILLMORE	18268	20615	23923
GOODHUE	8254	9314	10809
HOUSTON	9811	11068	12847
MOWER	13058	14736	17100
OLMSTED	9743	10994	12759
WABASHA	10081	11376	13202
WINONA	7916	8933	10366
SOUTHEAST DIST. (9)	96351	108725	126174
STATE TOTAL	789093	890442	1033344

TABLE 17

OTHER CATTLE

CROP REPORTING
DISTRICT

NORTHWEST (1)	168952	185150	223031
NORTH CENTRAL (2)	58665	98548	149908
NORTHEAST (3)	11328	11131	13318
WEST CENTRAL (4)	247617	222322	225048
CENTRAL (5)	408912	383964	427300
EAST CENTRAL (6)	164288	201022	266155
SOUTHWEST (7)	269509	201539	163786
SOUTH CENTRAL (8)	199624	151134	124302
SOUTH EAST (9)	401118	513387	700949
STATE TOTAL	1930018	1968200	2293799

TABLE 18

ALL CATTLE

CROP REPORTING DISTRICT	AVE. 79-81	1990	2000
NORTHWEST (1)	323722	318297	351021
NORTH CENTRAL (2)	106387	135962	183390
NORTHEAST (3)	20370	18603	20515
WEST CENTRAL (4)	492724	451306	459784
CENTRAL (5)	814441	781050	846509
EAST CENTRAL (6)	298166	317213	378346
SOUTHWEST (7)	544264	473983	455850
SOUTH CENTRAL (8)	399541	329791	299086
SOUTH EAST (9)	733712	816757	1010794
STATE TOTAL	3733330	3642966	4005299

TABLE 19

PIGS
(000)

CROP REPORTING DISTRICT	AVE. 79-81	1990	2000
NORTHWEST (1)	212.34	224.08	250.91
NORTH CENTRAL (2)	103.13	144.91	232.21
NORTHEAST (3)	5.03	9.05	17.76
WEST CENTRAL (4)	965.17	1092.74	1372.56
CENTRAL (5)	1905.85	2327.27	3313.18
EAST CENTRAL (6)	248.05	325.17	490.91
SOUTHWEST (7)	1565.60	1750.08	2133.55
SOUTH CENTRAL (8)	1864.70	2822.25	4060.48
SOUTH EAST (9)	1311.09	1563.04	2154.89
STATE TOTAL	8180.96	10258.59	14026.45

TABLE 20

PIGS
(000)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
BECKER	28.09	26.33	29.49
CLAY	25.11	25.24	28.27
CLEARWATER	12.28	18.27	20.46
KITTSOON	4.23	4.34	4.87
MAHONOMEN	14.95	22.22	24.88
MARSHALL	33.22	28.81	32.25
NORMAN	28.85	28.83	32.29
PENNINGTON	20.91	17.38	19.46
POLK	27.88	31.50	35.28
RED LAKE	8.64	10.14	11.36
ROSEAU	8.18	10.99	12.31
NORTHWEST DIST. (1)	212.34	224.08	250.91
BELTRAMMI	34.75	60.01	110.82
CASS	23.13	20.92	19.95
HUBBARD	18.97	27.40	40.90
ITASCA	17.55	28.52	48.50
KOOCHICHING	3.95	b	b
LAKE OF THE WOODS	4.79	8.07	12.04
NORTH CENTRAL DIST. (2)	103.13	144.91	232.21
COOK	a	b	b
LAKE	a	b	b
ST. LOUIS	5.03	9.05	17.76
NORHTEAST DIST. (3)	5.03	9.05	17.76

TABLE 20

FIGS
(000)

CROP REPORTING COUNTY & DISTRICT	AVE.79-81	1990	2000
BIG STONE	56.18	66.94	84.58
CHIPPEWA	97.41	110.44	139.53
DOUGLAS	75.39	85.55	108.09
GRANT	45.12	58.33	84.62
LAC QUI PARLE	93.80	110.50	139.60
OTTER TAIL	146.79	139.51	144.78
POPE	76.85	87.63	110.71
STEVENS	103.45	139.99	204.50
SWIFT	72.89	51.41	30.79
TRAVERSE	28.23	27.01	21.99
WILKIN	30.97	25.32	23.02
YELLOW MEDICINE	138.09	190.11	280.36
WEST CENTRAL DIST.(4)	965.17	1092.74	1372.56
BENTON	89.82	110.62	157.48
CARVER	77.37	107.40	152.90
KANDIYOHKI	122.31	137.77	196.14
MCLEOD	135.73	157.63	224.40
MEEKER	162.09	176.55	251.34
MORRISON	177.21	214.88	305.91
RENVILLE	162.99	190.72	271.52
SCOTT	57.60	72.12	102.68
SHERBURNE	36.38	39.47	56.19
SIBLEY	212.16	248.25	353.42
STEARNS	381.95	478.91	681.79
TODD	113.19	190.67	271.45
WADENA	64.22	70.21	99.96
WRIGHT	112.84	132.10	188.06
CENTRAL DIST.(5)	1905.85	2327.27	3313.18
AITKIN	6.80	b	b
ANOKA	10.06	b	b
CARLTON	2.15	2.55	3.63
CHISAGO	24.76	23.58	17.68
CROW WING	19.25	30.40	47.59
HENNEPIN	18.52	19.39	18.08
ISANTI	38.67	42.08	59.95
KANABEC	33.60	64.83	120.49
MILLE LACS	41.65	84.57	154.04
PINE	33.74	48.76	69.46
RAMSEY	1.35	b	b
WASHINHTON	17.51	9.03	b
EAST CENTRAL DIST.(6)	248.05	325.17	490.91

TABLE 20

PIGS
(000)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
COTTONWOOD	130.39	147.41	178.41
JACKSON	212.33	257.89	348.64
LINCOLN	127.23	161.32	223.60
LYON	198.46	266.76	368.78
MURRAY	187.16	214.84	260.02
NOBLES	238.83	223.10	229.38
PIPESTONE	125.60	131.71	146.66
REDWOOD	185.49	217.50	284.34
ROCK	160.11	129.54	93.73
SOUTHWEST DIST. (7)	1565.60	1750.08	2133.55
BLUE EARTH	162.92	174.61	164.86
BROWN	167.57	282.25	434.39
FARIBAULT	204.95	259.36	280.29
FREEBORN	283.46	489.10	770.35
LESUEUR	114.93	149.35	175.90
MARTIN	297.65	490.93	785.58
NICOLLET	139.10	197.70	285.37
RICE	137.50	248.98	420.22
STEELE	114.61	118.17	98.67
WASECA	128.45	224.96	356.67
WATONWAN	113.57	186.78	288.13
SOUTH CENTRAL DIST. (8)	1864.70	2822.25	4060.48
DAKOTA	75.88	114.40	188.06
DODGE	107.26	137.70	218.89
FILLMORE	285.58	351.48	476.36
GOODHUE	131.81	176.28	275.20
HOUSTON	163.20	207.26	280.80
MOWER	215.73	208.51	244.15
OLMSTED	107.47	114.13	137.53
WABASHA	114.61	132.89	180.11
WINONA	109.55	120.46	153.77
SOUTHEAST DIST. (9)	1311.09	1563.04	2154.89
STATE TOTAL	8180.94	10258.57	14026.45

TABLE 21

HENS AND PULLETS OF LAYING AGE
(000)

CROP REPORTING DISTRICT	AVE. 79-81	1990	2000
NORTHWEST (1)	1320.07	2176.44	2731.09
NORTH CENTRAL (2)	59.26	60.53	56.52
NORTHEAST (3)	165.05	235.86	281.90
WEST CENTRAL (4)	600.59	613.99	573.30
CENTRAL (5)	3408.16	4759.43	5477.89
EAST CENTRAL (6)	632.29	651.46	608.30
SOUTHWEST (7)	1006.84	1029.08	960.89
SOUTH CENTRAL (8)	1439.98	893.69	326.76
SOUTH EAST (9)	767.71	629.02	456.35
STATE TOTAL	9399.95	11049.50	11473.00

TABLE 22

HENS
(000)

CROP REPORTING COUNTY & DISTRICT	AVE.79-81	1990	2000
BECKER	49.96	16.19	b
CLAY	477.24	1201.20	1867.93
CLEARWATER	412.11	669.67	731.33
KITTSO	4.13	b	b
MAHNOMEN	18.95	b	b
MARSHALL	10.34	b	b
NORMAN	21.71	b	b
PENNINGTON	11.72	b	b
POLK	246.37	168.70	b
RED LAKE	62.02	120.71	131.83
ROSEAU	5.51	b	b
NORTHWEST DIST. (1)	1320.07	2176.44	2731.09
BELTRAMMI	7.92	12.32	12.77
CASS	6.20	7.59	7.05
HUBBARD	14.13	18.18	14.86
ITASCA	12.40	b	b
KOOCHICHING	16.54	18.82	18.24
LAKE OF THE WOODS	2.07	3.27	3.60
NORTH CENTRAL DIST. (2)	59.26	60.53	56.52
COOK	a	b	b
LAKE	4.13	b	b
ST. LOUIS	160.92	235.86	281.90
NORHTEAST DIST. (3)	165.05	235.86	281.90

TABLE 22

HENS
(000)

CROP REPORTING COUNTY & DISTRICT	AVE.79-81	1990	2000
BIG STONE	31.01	36.45	31.47
CHIPPEWA	129.21	174.49	208.98
DOUGLAS	25.50	17.60	8.07
GRANT	10.34	b	b
LAC QUI PARLE	67.19	87.92	93.56
OTTER TAIL	66.85	50.65	31.45
POPE	44.45	46.93	40.52
STEVENS	106.82	114.25	98.65
SWIFT	18.26	b	b
TRAVERSE	17.57	9.83	1.18
WILKIN	22.40	14.88	6.76
YELLOW MEDICINE	60.99	60.99	52.67
WEST CENTRAL DIST.(4)	600.59	613.99	573.30
BENTON	272.21	642.90	810.89
CARVER	70.64	50.31	21.91
KANDIYOHI	141.28	8.85	b
MCLEOD	87.87	b	b
MEEKER	487.57	634.48	678.49
MORRISON	372.14	853.37	1031.54
RENVILLE	113.71	b	b
SCOTT	33.42	b	b
SHERBURNE	139.55	b	b
SIBLEY	639.18	1200.28	1483.25
STEARNS	678.81	887.49	932.39
TODD	67.19	57.83	3.51
WADENA	22.05	b	b
WRIGHT	282.55	424.02	515.91
CENTRAL DIST.(5)	3408.16	4759.43	5477.89
AITKIN	19.64	17.32	12.46
ANOKA	17.57	b	b
CARLTON	3.10	b	b
CHISAGO	58.23	51.56	40.95
CROW WING	16.19	17.56	15.48
HENNEPIN	25.15	27.63	19.89
ISANTI	56.85	b	b
KANABEC	7.24	b	b
MILLE LACS	37.90	34.61	24.91
PINE	344.57	482.82	493.89
RAMSEY	1.03	b	b
WASHINHTON	44.79	18.96	b
EAST CENTRAL DIST.(6)	632.29	651.46	608.30

TABLE 22

HENS
(000)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
COTTONWOOD	179.18	250.13	293.65
JACKSON	136.11	155.61	134.69
LINCOLN	22.05	b	b
LYON	134.38	134.05	116.03
MURRAY	115.43	99.53	86.15
NOBLES	153.33	178.14	169.57
PIPESTONE	28.60	b	b
REDWOOD	161.95	157.70	136.49
ROCK	75.81	53.92	24.32
SOUTHWEST DIST. (7)	1006.84	1029.08	960.89
BLUE EARTH	39.63	b	b
BROWN	155.06	63.56	11.31
FARIBAULT	79.60	b	b
FREEBORN	418.66	362.09	143.61
LESUEUR	43.76	b	b
MARTIN	91.31	43.37	13.53
NICOLLET	158.50	90.88	28.36
RICE	218.80	201.79	84.56
STEELE	143.00	99.50	35.24
WASECA	29.63	b	b
WATONWAN	62.02	32.50	10.14
SOUTH CENTRAL DIST. (8)	1439.98	893.69	326.76
DAKOTA	60.65	74.95	48.78
DODGE	111.99	131.77	109.10
FILLMORE	124.05	84.15	54.78
GOODHUE	87.87	81.47	59.18
HOUSTON	48.24	2.45	b
MOWER	128.53	98.50	57.67
OLMSTED	33.77	6.96	b
WABASHA	130.94	145.17	126.83
WINONA	41.69	3.65	b
SOUTHEAST DIST. (9)	767.71	629.02	456.35
STATE TOTAL	9399.95	11049.50	11473.00

TABLE 23

BROILERS
(000)

CROP REPORTING DISTRICT	AVE. 79-81	1990	2000
NORTHWEST (1)	15.43	18.58	27.52
NORTH CENTRAL (2)	6.25	7.52	11.14
NORTHEAST (3)	9.84	11.85	17.54
WEST CENTRAL (4)	107.34	129.25	191.42
CENTRAL (5)	19,009.10	22,888.85	33,897.02
EAST CENTRAL (6)	25.76	31.02	45.94
SOUTHWEST (7)	55.54	66.88	99.04
SOUTH CENTRAL (8)	42.62	51.31	75.99
SOUTH EAST (9)	27.98	33.69	49.90
STATE TOTAL	19,299.87	23,238.97	34,415.52

TABLE 24

BROILERS
(000)

CROP REPORTING COUNTY & DISTRICT	AVE.79-81	1990	2000
BECKER	3.26	3.93	5.82
CLAY	2.73	3.29	4.87
CLEARWATER	a	b	b
KITTSOON	a	b	b
MAHNOMEN	.96	1.16	1.71
MARSHALL	1.28	1.55	2.29
NORMAN	1.51	1.81	2.69
PENNINGTON	a	b	b
POLK	2.40	2.89	4.28
RED LAKE	1.57	1.89	2.79
ROSEAU	1.72	2.07	3.07
NORTHWEST DIST. (1)	15.43	18.58	27.52
BELTRAMMI	1.47	1.77	2.61
CASS	.60	.72	1.07
HUBBARD	2.62	3.15	4.66
ITASCA	1.02	1.23	1.82
KOOCHICHING	.30	b	b
LAKE OF THE WOODS	.24	b	b
NORTH CENTRAL DIST. (2)	6.25	7.52	11.14
COOK	a	b	b
LAKE	a	b	b
ST. LOUIS	9.84	11.85	17.54
NORHEAST DIST. (3)	9.84	11.85	17.54

TABLE 24

BROILERS
(000)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
BIG STONE	3.57	4.30	6.37
CHIPPEWA	3.88	4.67	6.92
DOUGLAS	71.45	86.04	127.42
GRANT	1.91	2.30	3.41
LAC QUI PARLE	3.27	3.94	5.83
OTTER TAIL	11.03	13.28	19.67
POPE	2.56	3.08	4.56
STEVENS	2.95	3.55	5.25
SWIFT	a	b	b
TRAVERSE	.34	.41	.61
WILKIN	1.74	2.09	3.09
YELLOW MEDICINE	4.65	5.60	8.30
WEST CENTRAL DIST. (4)	107.34	129.25	191.42
BENTON	8,608.95	10,366.04	15,351.48
CARVER	2.80	3.38	5.00
KANDIYOHKI	2.73	3.29	4.87
MCLEOD	5.90	7.11	10.53
MEEKER	4.59	5.53	8.19
MORRISON	5,260.18	6,333.79	9,379.96
RENVILLE	5.68	6.84	10.13
SCOTT	6.80	8.19	12.12
SHERBURNE	a	b	b
SIBLEY	a	b	b
STEARNS	4,506.63	5,426.43	8,036.22
TODD	5.29	6.36	9.43
WADENA	a	b	b
WRIGHT	599.53	721.89	1,069.08
CENTRAL DIST. (5)	19,009.10	22,888.85	33,897.02
AITKIN	1.82	2.19	3.25
ANOKA	1.78	2.15	3.18
CARLTON	1.06	1.27	1.88
CHISAGO	3.25	3.91	5.79
CROW WING	a	b	b
HENNEPIN	1.37	1.65	2.45
ISANTI	1.32	1.59	2.35
KANABEC	.94	1.13	1.68
MILLE LACS	a	b	b
PINE	1.82	2.19	3.24
RAMSEY	a	b	b
WASHINHTON	12.41	14.95	22.14
EAST CENTRAL DIST. (6)	25.76	31.02	45.94

TABLE 24

BROILERS
(000)

COTTONWOOD	6.91	8.32	12.32
JACKSON	3.26	3.93	5.82
LINCOLN	2.97	3.57	5.29
LYON	4.73	5.69	8.43
MURRAY	6.03	7.26	10.76
NOBLES	18.90	22.76	33.71
PIPESTONE	3.83	4.61	6.82
REDWOOD	7.04	8.48	12.56
ROCK	1.88	2.26	3.35

SOUTHWEST DIST. (7)	55.54	66.88	99.04

BLUE EARTH	4.61	5.55	8.21
BROWN	3.42	4.12	6.10
FARIBAULT	4.73	5.70	8.44
FREEBORN	8.06	9.71	14.38
LESUEUR	1.40	1.68	2.49
MARTIN	a	b	b
NICOLLET	3.23	3.89	5.76
RICE	3.86	4.65	6.88
STEELE	5.82	7.01	10.39
WASECA	4.18	5.03	7.45
WATONWAN	3.30	3.98	5.89

SOUTH CENTRAL DIST. (8)	42.62	51.31	75.99

DAKOTA	6.09	7.33	10.85
DODGE	1.47	1.77	2.63
FILLMORE	2.08	2.50	3.71
GOODHUE	6.74	8.11	12.02
HOUSTON	a	b	b
MOWER	1.82	2.19	3.24
OLMSTED	1.51	1.81	2.69
WABASHA	2.82	3.40	5.04
WINDNA	5.46	6.58	9.74

SOUTHEAST DIST. (9)	27.98	33.69	49.90

STATE TOTAL	19,299.87	23,238.97	34,415.52

TABLE 25

TURKEYS
(000)

CROP REPORTING DISTRICT	AVE. 79-81	1990	2000
NORTHWEST (1)	2085.87	2376.21	2831.05
NORTH CENTRAL (2)	.03	b	b
NORTHEAST (3)	2.80	b	b
WEST CENTRAL (4)	3447.37	3927.23	4678.94
CENTRAL (5)	15215.53	17333.43	20651.25
EAST CENTRAL (6)	1621.47	1847.17	2200.74
SOUTHWEST (7)	168.78	192.28	229.08
SOUTH CENTRAL (8)	1439.18	1639.50	1953.32
SOUTH EAST (9)	1307.62	1489.63	1774.76
STATE TOTAL	25288.65	28808.68	34322.98

TABLE 26

TURKEYS
(000)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
BECKER	1295.57	1475.91	1758.42
CLAY	a	b	b
CLEARWATER	a	b	b
KITTSO	a	b	b
MAHNOMEN	a	b	b
MARSHALL	a	b	b
NORMAN	a	b	b
PENNINGTON	a	b	b
POLK	a	b	b
RED LAKE	a	b	b
ROSEAU	790.30	900.30	1072.63
NORTHWEST DIST. (1)	2085.87	2376.21	2831.05
BELTRAMMI	.03	b	b
CASS	a	b	b
HUBBARD	a	b	b
ITASCA	a	b	b
KOOCHICHING	a	b	b
LAKE OF THE WOODS	a	b	b
NORTH CENTRAL DIST. (2)	.03	b	b
COOK	a	b	b
LAKE	a	b	b
ST. LOUIS	2.80	3.19	3.80
NORHTEAST DIST. (3)	2.80	3.19	3.80

TABLE 26

TURKEYS

(000)

CROP REPORTING COUNTY & DISTRICT	AVE.79-81	1990	2000
BIG STONE	a	b	b
CHIPPEWA	a	b	b
DOUGLAS	141.40	161.08	191.91
GRANT	a	b	b
LAC QUI PARLE	a	b	b
OTTER TAIL	3032.48	3454.58	4115.82
POPE	a	b	b
STEVENS	a	b	b
SWIFT	a	b	b
TRAVERSE	a	b	b
WILKIN	a	b	b
YELLOW MEDICINE	273.50	311.57	371.20
WEST CENTRAL DIST.(4)	3447.37	3927.23	4678.94
BENTON	a	b	b
CARVER	a	b	b
KANDIYOHI	3725.85	4244.47	5056.91
MCLEOD	a	b	b
MEEKER	2041.13	2325.24	2770.32
MORRISON	2008.44	2288.00	2725.95
RENVILLE	a	b	b
SCOTT	a	b	b
SHERBURNE	a	b	b
SIBLEY	.02	b	b
STEARNS	3955.25	4505.79	5368.25
TODD	2483.61	2829.32	3370.88
WADENA	1001.22	1140.59	1358.91
WRIGHT	a	b	b
CENTRAL DIST.(5)	15215.53	17333.43	20651.25
AITKIN	931.70	1061.39	1264.55
ANOKA	a	b	b
CARLTON	a	b	b
CHISAGO	391.23	445.68	530.99
CROW WING	298.53	340.09	405.18
HENNEPIN	a	b	b
ISANTI	a	b	b
KANABEC	a	b	b
MILLE LACS	a	b	b
PINE	a	b	b
RAMSEY	a	b	b
WASHINHTON	a	b	b
EAST CENTRAL DIST.(6)	1621.47	1847.17	2200.74

TABLE 26

TURKEYS
(000)

CROP REPORTING COUNTY & DISTRICT	AVE. 79-81	1990	2000
COTTONWOOD	a	b	b
JACKSON	a	b	b
LINCOLN	a	b	b
LYON	a	b	b
MURRAY	a	b	b
NOBLES	168.78	192.28	229.08
PIPESTONE	a	b	b
REDWOOD	a	b	b
ROCK	a	b	b
SOUTHWEST DIST. (7)	168.78	192.28	229.08
BLUE EARTH	a	b	b
BROWN	381.86	435.01	518.27
FARIBAULT	a	b	b
FREEBORN	a	b	b
LESUEUR	a	b	b
MARTIN	185.81	211.67	252.19
NICOLLET	a	b	b
RICE	871.52	992.82	1182.86
STEELE	a	b	b
WASECA	a	b	b
WATONWAN	a	b	b
SOUTH CENTRAL DIST. (8)	1439.18	1639.50	1953.32
DAKOTA	a	b	b
DODGE	a	b	b
FILLMORE	649.65	740.08	881.74
GOODHUE	a	b	b
HOUSTON	a	b	b
MOWER	a	b	b
OLMSTED	a	b	b
WABASHA	a	b	b
WINONA	657.97	749.55	893.02
SOUTHEAST DIST. (9)	1307.62	1489.63	1774.76
STATE TOTAL	25288.67	28808.68	34323.00

TABLE 27

CORN PRODUCTION AND CONSUMPTION
(000 bushels)

CROP REPORTING DISTRICT	AVE. 1979-81			1990			2000		
	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)
NORTHWEST (1)	7724.17	9297.96	-1573.79	10861.62	10182.87	678.75	22601.35	11155.98	11445.37
NORTH CENTRAL (2)	1255.45	2099.42	-843.97	1790.19	2511.44	-721.25	3732.12	3401.67	330.45
NORTHEAST (3)	a	517.91	-517.91	b	596.43	-596.43	b	712.11	-712.11
WEST CENTRAL (4)	85043.09	31538.94	53504.15	107085.14	32541.37	74543.77	166762.96	35994.77	130768.19
CENTRAL (5)	122283.89	71061.16	51222.73	170225.93	79016.53	91209.40	283742.20	94678.97	189063.23
EAST CENTRAL (6)	24105.14	9424.99	14680.15	40370.72	10288.50	30082.22	79716.18	12324.68	67391.50
SOUTHWEST (7)	130003.03	40220.37	89782.66	141013.52	40974.61	100038.91	182905.38	44225.38	138680.00
SOUTH CENTRAL (8)	168824.91	39220.96	129603.95	198298.44	45578.44	152720.00	278910.34	54463.15	224447.19
SOUTH EAST (9)	114362.14	39019.86	75342.28	139703.36	43383.49	96319.87	250775.06	52932.12	197842.94
STATE TOTAL	653601.83	242401.57	411200.26	809348.92	265073.69	544275.23	1269145.60	309888.83	959256.77

TABLE 28

CORN PRODUCTION AND CONSUMPTION
(000 bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 1979-81			1990			2000		
	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)
BECKER	961.84	2063.84	-1102.00	1616.21	2011.27	-395.06	3363.08	2115.38	1247.70
CLAY	1609.77	1238.56	371.21	2647.09	2080.94	566.15	5508.17	2855.59	2652.58
CLEARWATER	352.40	948.59	-596.19	303.58	1345.46	-1041.88	631.71	1471.08	-839.37
KITTSON	58.03	157.25	-99.22	68.65	133.40	-64.75	142.84	145.84	-3.00
MAHONMEN	435.20	438.46	-3.26	628.67	422.73	205.94	1308.17	405.00	903.17
MARSHALL	556.60	646.35	-89.75	333.02	561.54	-228.52	692.96	593.32	99.64
NORMAN	771.87	625.04	146.83	1748.61	512.79	1235.82	3638.59	473.15	3165.44
PENNINGTON	203.57	466.35	-262.78	185.95	371.61	-185.66	386.94	363.72	23.22
POLK	1855.83	1246.95	608.88	2463.74	1120.19	1343.55	5126.66	934.21	4192.45
RED LAKE	729.60	371.78	357.82	785.08	437.32	347.76	1633.63	440.32	1193.31
ROSEAU	189.47	1094.78	-905.31	81.24	1185.41	-1104.17	169.06	1358.47	-1189.41
NORTHWEST DIST. (1)	7724.17	9297.96	-1573.79	10861.62	10182.87	678.75	22601.35	11155.98	11445.37
BELTRAMMI	226.66	662.04	-435.38	208.56	936.38	-727.82	434.79	1434.79	-1000.00
CASS	527.79	495.56	32.23	610.53	428.38	182.15	1272.80	393.99	878.81
HUBBARD	428.93	365.53	63.40	854.99	442.38	412.61	1782.46	564.60	1217.86
ITASCA	35.24	332.47	-297.23	67.67	432.24	-364.57	141.07	638.08	-497.01
KOOCHICHING	11.89	121.18	-109.29	18.49	88.30	-69.81	38.55	104.87	-66.32
LAKE OF THE WOODS	24.93	122.74	-97.81	29.93	183.85	-153.92	62.40	265.33	-202.93
NORTH CENTRAL DIST. (2)	1255.45	2099.42	-843.97	1790.19	2511.44	-721.25	3732.12	3401.67	330.45
COOK	a	.85	-.85	b	b	b	b	b	b
LAKE	a	11.61	-11.61	b	b	b	b	b	b
ST. LOUIS	a	505.46	-505.46	b	b	b	b	b	b
NORRHEAST DIST. (3)	a	517.91	-517.91	b	596.43	-596.43	b	712.11	-712.11

TABLE 28

CORN PRODUCTION AND CONSUMPTION
(000 bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 1979-81			1990			2000		
	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)
BIG STONE	3811.04	1266.19	2544.85	5174.35	1283.94	3890.41	8057.99	1363.92	6694.07
CHIPPEWA	9325.74	2237.38	7088.36	14361.19	2238.32	12122.87	22364.58	2400.58	19964.00
DOUGLAS	3469.76	2816.14	653.62	3393.53	2831.56	561.97	5284.72	3068.78	2215.94
GRANT	2565.07	1315.02	1250.05	3256.46	1345.53	1910.93	5071.26	1535.38	3535.88
LAC QUI PARLE	10258.75	2612.55	7646.20	13883.59	2823.60	11059.99	21620.82	3205.34	18415.48
OTTER TAIL	8371.30	8676.04	-304.74	8109.56	8957.45	-847.89	12628.96	9825.13	2803.83
POPE	7525.46	2507.66	5017.80	8082.79	2635.42	5447.37	12587.27	2987.25	9600.02
STEVENS	8282.18	3317.75	4964.43	10276.96	3686.37	6590.59	16004.24	4381.88	11622.36
SWIFT	12079.86	2016.46	10063.40	16393.66	1734.80	14658.86	25529.74	1562.46	23967.28
TRAVERSE	1948.25	763.69	1184.56	2813.13	742.90	2070.23	4380.86	708.97	3671.89
WILKIN	1512.07	617.84	894.23	1340.71	451.82	888.89	2087.87	338.09	1749.78
YELLOW MEDICINE	15893.53	3392.24	12501.29	20001.36	3809.59	16191.77	31147.98	4617.01	26530.97
WEST CENTRAL DIST. (4)	85043.09	31538.94	53504.15	107085.10	32541.37	74543.73	166763.00	35994.77	130768.23
BENTON	4812.12	4270.09	542.03	4808.88	5658.89	-850.01	8015.72	7476.17	539.55
CARVER	6061.61	3316.18	2745.43	8610.03	3535.57	5074.46	14351.68	4023.85	10327.83
KANDIYOHI	14395.75	6309.98	8085.77	20284.12	6361.80	13922.32	33810.72	7221.20	26589.52
MCLEOD	10054.06	3741.57	6312.49	14578.15	3486.84	11091.31	24299.68	3802.31	20497.37
MEEKER	11556.19	5596.74	5959.45	15912.72	5762.36	10150.36	26524.22	6477.70	20046.52
MORRISON	5847.74	7841.85	-1994.11	6024.30	9594.29	-3569.99	10041.64	12078.64	-2037.00
RENVILLE	18836.85	3306.63	15530.22	32705.51	2935.21	29770.30	54515.39	3279.36	51236.03
SCOTT	4773.60	2046.20	2727.40	6963.94	2084.20	4879.74	11607.89	2345.65	9262.24
SHERBURNE	2871.96	1129.23	1742.73	3414.73	1051.32	2363.41	5691.87	1324.65	4367.22
SIBLEY	12618.96	5001.35	7617.61	19958.99	5712.31	14246.68	33268.77	6744.12	26524.65
STEARNS	14736.19	15623.03	-886.84	17182.61	18214.89	-1032.28	28640.94	22569.47	6071.47
TODD	5362.15	6360.47	-998.32	6088.98	7752.83	-1663.85	10149.46	9373.73	775.73
WADENA	1659.76	2306.25	-646.49	1746.52	2540.48	-793.96	2911.19	3150.20	-239.01
WRIGHT	8696.71	4211.71	4485.00	11948.16	4325.98	7622.18	19915.86	4812.47	15103.39
CENTRAL DIST. (5)	122283.89	71061.16	51222.73	170225.90	79016.53	91209.37	283742.20	94678.97	189063.23
AITKIN	300.49	1113.36	-812.87	637.86	1085.56	-447.70	1259.51	1182.37	77.14
ANDOKA	1754.40	244.27	1510.13	3005.60	77.55	2928.05	5938.86	27.41	5911.45
CARLTON	29.24	386.64	-357.40	125.55	394.25	-268.70	247.12	451.15	-204.03
CHISAGO	3259.64	1122.79	2136.85	4008.01	1050.36	2957.65	7915.82	993.84	6921.98
CROW WING	674.73	702.32	-27.59	1744.42	831.78	912.64	3443.74	1050.77	2392.97
HENNEPIN	3057.88	667.65	2390.23	2385.91	645.15	1740.76	4711.23	648.02	4063.21
ISANTI	4367.90	759.38	3608.52	8858.14	691.96	8166.18	17489.73	831.30	16658.43
KANABEC	1806.80	942.26	864.54	4060.08	1375.67	2684.41	8019.45	2088.71	5930.74
MILLE LACS	2739.33	1265.07	1474.26	6066.91	1829.26	4237.65	11981.34	2662.57	9318.77
PINE	1897.58	1594.95	302.63	4098.84	1963.48	2135.36	8091.19	2288.54	5802.65
RAMSEY	65.52	26.20	39.32	111.83	14.47	97.36	223.21	15.73	207.48
WASHINGTON	4151.63	600.18	3551.45	5267.57	329.25	4938.32	10402.96	84.35	10318.61
EAST CENTRAL DIST. (6)	24105.14	9424.99	14680.15	40370.72	10288.50	30082.22	79716.18	12324.68	67391.50

TABLE 28

CORN PRODUCTION AND CONSUMPTION
(000 bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 1979-81			1990			2000		
	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)
COTTONWOOD	16067.46	4103.08	11964.38	17630.92	4518.62	13112.30	22868.66	5087.03	17781.63
JACKSON	22350.64	4245.74	18104.90	23051.48	4513.01	18538.47	29899.54	5170.20	24729.34
LINCOLN	7214.00	3272.25	3941.75	7510.38	3458.00	4052.38	9741.54	3983.09	5758.45
LYON	13822.83	5220.46	8602.37	15357.78	5748.25	9609.53	19920.22	6614.03	13306.19
MURRAY	13493.79	5176.82	8316.97	15538.28	5370.21	10168.07	20154.34	5835.39	14318.95
NOBLES	17453.56	5330.52	12123.04	18688.52	4847.39	13841.13	24240.45	4677.42	19563.03
PIPESTONE	7398.86	3374.74	4024.12	8597.59	3418.50	5179.09	11151.74	3635.93	7515.81
REDWOOD	19521.51	4715.76	14805.75	21641.34	4859.16	16782.18	28070.49	5377.99	22692.50
ROCK	12680.50	4781.01	7899.49	12998.63	4241.33	8757.30	16860.22	3844.44	13015.78
SOUTHWEST DIST. (7)	130003.03	40220.37	89782.66	141013.52	40974.61	100038.91	182905.38	44225.38	138680.00
BLUE EARTH	16745.57	3049.53	13696.04	22177.70	3014.73	19162.97	30476.53	2838.40	27638.13
BROWN	12974.19	4191.92	8782.27	12728.78	4974.09	7754.69	14506.13	6131.79	8374.34
FARIBAUT	22283.54	3573.94	18709.60	24807.08	3827.19	20979.89	34094.00	3898.52	30195.48
FREEBORN	22308.86	4867.48	17441.38	28392.37	6411.14	21981.23	43897.70	8321.50	35576.20
LESUEUR	8507.93	2536.56	5971.37	7793.13	2725.84	5067.29	7993.57	2914.57	5079.00
MARTIN	23364.19	5784.99	17579.20	26207.12	7280.30	18926.82	36012.90	9701.98	26310.92
NICOLLET	11129.44	3038.12	8091.32	11546.92	3407.56	8139.36	14269.05	4033.22	10235.83
RICE	12170.93	4628.97	7541.96	16228.74	5521.08	10707.66	25715.53	6872.04	18843.49
STEELE	12832.04	2828.89	10003.15	16972.36	2535.68	14436.68	27096.14	2106.84	24989.30
WASECA	13938.35	2340.90	11597.45	18671.78	3027.68	15644.10	29282.80	4048.02	25234.78
WATONWAN	12569.86	2379.76	10190.10	12770.42	2853.19	9917.23	15565.99	3595.82	11970.17
SOUTH CENTRAL DIST. (8)	168824.91	39220.96	129603.95	198298.44	45578.44	152720.00	278910.34	54463.15	224447.19
DAKOTA	9945.05	2506.00	7439.05	12327.42	2650.21	9677.21	22018.05	3059.29	18958.76
DODGE	13048.61	2975.82	10072.79	17891.81	3219.62	14672.19	36204.40	3912.89	32291.51
FILLMORE	19321.48	7531.18	11790.30	23727.22	8620.80	15106.42	42375.97	10618.64	31757.33
GOODHUE	13576.04	5036.24	8539.80	14238.57	6158.11	8080.46	20413.09	8179.31	12233.78
HOUSTON	7056.83	4290.03	2766.80	7627.80	4986.24	2641.56	11721.23	6229.09	5492.14
HOWER	20866.97	3994.95	16872.02	26800.69	3513.76	23286.93	51797.59	3444.10	48353.49
OLMSTED	14255.01	3665.87	10589.14	16602.35	3807.40	12794.95	29651.64	4368.47	25283.17
WABASHA	7615.37	4162.86	3452.51	9660.49	4959.76	4700.73	17253.32	6434.32	10819.00
WINONA	8676.88	4856.96	3819.92	10829.80	5467.56	5362.24	19342.28	6685.67	12656.61
SOUTHEAST DIST. (9)	114362.14	39019.86	75342.28	139703.36	43383.49	96319.87	250775.06	52932.12	197842.94
STATE TOTAL	653601.83	242401.57	411200.26	809348.92	265073.69	544275.23	1269145.60	309888.83	959256.77

TABLE 29

OAT PRODUCTION AND CONSUMPTION
(000 bushels)

CROP REPORTING DISTRICT	AVE. 1979-81			1990			2000		
	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)
NORTHWEST (1)	11739.63	2528.73	9210.90	11391.51	2408.94	8982.57	16638.04	2423.69	14214.35
NORTH CENTRAL (2)	1951.64	656.39	1295.25	1685.91	683.61	1002.30	2462.38	800.69	1661.69
NORTHEAST (3)	222.07	171.52	50.55	158.38	156.81	1.57	231.32	162.42	68.90
WEST CENTRAL (4)	19841.36	1997.57	17843.79	16542.39	1916.10	14626.29	24161.22	2004.29	22156.93
CENTRAL (5)	22374.35	5068.47	17305.88	17093.27	5441.49	11651.78	24965.82	6264.16	18701.66
EAST CENTRAL (6)	4214.84	3200.93	1013.91	3234.75	3294.90	-60.15	4724.56	3714.62	1009.94
SOUTHWEST (7)	8167.19	1779.61	6387.58	7375.16	1538.25	5836.91	10771.90	1436.62	9335.28
SOUTH CENTRAL (8)	5380.90	2080.97	3299.93	4451.56	1950.68	2500.88	6501.79	1957.71	4544.08
SOUTH EAST (9)	11997.77	3093.81	8903.96	9121.47	3477.50	5643.97	13322.49	4234.18	9088.31
STATE TOTAL	85889.73	20578.00	65311.73	71054.40	20868.27	50186.13	103779.52	22998.38	80781.14

TABLE 30

OAT PRODUCTION AND CONSUMPTION
(000 bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 1979-81			1990			2000		
	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)
BECKER	1443.85	486.23	-1102.00	1098.60	442.74	655.86	1604.57	426.17	1178.40
CLAY	969.87	279.69	371.21	974.32	348.64	625.68	1423.05	426.99	996.06
CLEARWATER	810.50	231.38	-596.19	531.53	281.26	250.27	776.33	311.24	465.09
KITTSOON	551.30	60.99	-99.22	578.23	45.71	532.52	844.55	47.31	797.24
MAHONOMEN	909.47	155.48	-3.26	751.38	125.48	625.90	1097.45	104.98	992.47
MARSHALL	1563.01	193.71	-89.75	1628.53	166.79	1461.74	2378.57	163.66	2214.91
NORMAN	1196.34	195.88	146.83	1215.25	149.62	1065.63	1774.95	118.82	1656.13
PENNINGTON	849.37	151.37	-262.78	919.41	120.06	799.35	1342.86	106.71	1236.15
POLK	988.08	393.64	608.88	1463.70	345.88	1117.82	2137.82	312.26	1825.56
RED LAKE	494.24	134.12	357.82	614.34	131.10	483.24	897.29	121.98	775.31
ROSEAU	1963.58	246.24	-905.31	1616.23	251.62	1364.61	2360.60	283.59	2077.01
NORTHWEST DIST. (1)	11739.63	2528.73	-1573.79	11391.51	2408.94	8982.57	16638.04	2423.69	14214.35
BELTRAMMI	526.30	201.10	-435.38	579.40	238.59	340.81	846.25	304.39	541.86
CASS	160.30	168.86	32.23	130.10	133.94	-3.84	190.02	113.38	76.64
HUBBARD	322.33	107.34	63.40	274.70	110.07	164.63	401.22	123.16	278.06
ITASCA	204.97	95.99	-297.23	156.76	107.18	49.58	228.95	138.29	90.66
KOOCHICHING	265.20	38.89	-109.29	167.28	33.98	133.30	244.32	39.41	204.91
LAKE OF THE WOODS	472.53	44.22	-97.81	377.68	59.85	317.83	551.62	82.06	469.56
NORTH CENTRAL DIST. (2)	1951.64	656.39	-843.97	1685.91	683.61	1002.30	2462.38	800.69	1661.69
COOK	1.94	.42	-.85	b	b	b	b	b	b
LAKE	4.00	4.28	-11.61	b	b	b	b	b	b
ST. LOUIS	216.10	166.82	-505.46	b	b	b	b	b	b
NORHTEAST DIST. (3)	222.07	171.52	-517.91	158.38	156.81	1.57	231.32	162.42	68.90

TABLE 30

OAT PRODUCTION AND CONSUMPTION
(000 bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 1979-81			1990			2000		
	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)
BIG STONE	1006.33	75.39	2544.85	962.27	66.87	895.40	1405.46	60.67	1344.79
CHIPPEWA	686.91	90.47	7088.36	694.78	63.43	631.35	1014.77	45.47	969.30
DOUGLAS	3017.63	254.20	653.62	1874.75	241.87	1632.88	2738.19	246.49	2491.70
GRANT	589.71	69.06	1250.05	836.22	53.95	782.27	1221.35	47.85	1173.50
LAC QUI PARLE	1073.99	132.65	7646.20	1126.04	136.62	989.42	1644.65	152.03	1492.62
OTTER TAIL	6341.93	680.75	-304.74	4233.20	700.09	3533.11	6182.86	771.91	5410.95
POPE	2723.43	214.46	5017.80	1739.76	224.06	1515.70	2541.04	250.41	2290.63
STEVENS	1025.84	140.45	4964.43	1185.59	142.28	1043.31	1731.63	162.72	1568.91
SWIFT	1111.67	96.40	10063.40	996.02	72.42	923.60	1454.75	57.24	1397.51
TRAVERSE	821.63	43.27	1184.56	1037.37	41.63	995.74	1515.15	40.91	1474.24
WILKIN	530.10	46.69	894.23	933.16	31.48	901.68	1362.93	19.69	1343.24
YELLOW MEDICINE	912.21	153.77	12501.29	923.40	141.38	782.02	1348.68	148.90	1199.78
WEST CENTRAL DIST. (4)	19841.36	1997.57	53504.15	16542.39	1916.10	14626.29	24161.22	2004.29	22156.93
BENTON	904.53	280.81	542.03	686.98	395.74	291.24	1003.38	520.05	483.33
CARVER	883.38	304.25	2745.43	695.87	301.76	394.11	1016.36	324.60	691.76
KANDIYOHI	1940.64	329.20	8085.77	1502.33	301.13	1201.20	2194.25	325.77	1868.48
MCLEOD	1264.64	307.01	6312.49	1102.34	252.68	849.66	1610.05	231.52	1378.53
MECKER	1231.24	359.69	5959.45	1135.85	349.83	786.02	1658.98	358.65	1300.33
MORRISON	1977.80	551.83	-1994.11	1241.66	694.18	547.48	1813.52	871.60	941.92
RENVILLE	1376.11	163.98	15530.22	1342.16	77.19	1264.97	1960.32	35.12	1925.20
SCOTT	564.73	178.18	2727.40	468.01	168.92	299.10	683.56	177.33	506.23
SHERBURNE	203.63	89.59	1742.73	138.28	79.80	58.48	201.97	99.89	102.08
SIBLEY	910.19	348.72	7617.61	958.93	382.64	576.29	1400.58	414.64	985.94
STEARNS	5684.65	1131.14	-886.84	4284.09	1305.26	2978.83	6257.18	1596.77	4660.41
TODD	3039.71	499.28	-998.32	1942.99	590.25	1352.74	2837.86	706.31	2131.55
WADENA	737.26	155.01	-646.49	405.97	178.76	227.21	592.94	224.97	367.97
WRIGHT	1655.84	369.79	4485.00	1187.64	363.37	824.27	1734.63	376.95	1357.68
CENTRAL DIST. (5)	22374.35	5068.47	51222.73	17093.27	5441.49	11651.78	24965.82	6264.16	18701.66
AITKIN	162.07	213.97	-812.87	105.00	191.24	-86.24	153.36	187.95	-34.59
ANDKA	69.84	78.61	1510.13	62.37	36.94	25.43	91.09	8.24	82.85
CARLTON	277.37	209.60	-357.40	144.46	209.92	-65.46	211.00	231.88	-20.88
CHISAGO	366.07	322.39	2136.85	345.44	273.57	71.87	504.54	244.22	260.32
CROW WING	306.47	184.90	-27.59	221.22	204.34	16.88	323.11	249.55	73.56
HENNEPIN	371.13	280.03	2390.23	338.23	258.11	80.12	494.00	263.66	230.34
ISANTI	297.40	224.95	3608.52	287.15	212.44	74.71	419.40	228.95	190.45
KANABEC	506.77	381.37	864.54	331.72	495.29	-163.57	484.50	671.61	-187.11
MILLE LACS	671.23	521.45	1474.26	498.86	670.93	-172.07	728.62	884.67	-156.05
PINE	748.60	562.82	302.63	531.76	624.68	-92.92	776.67	715.69	60.98
RAMSEY	1.11	5.61	39.32	7.70	4.61	3.09	11.24	5.11	6.13
WASHINGTON	428.33	215.22	3551.45	360.84	112.91	247.93	527.02	23.10	503.92
EAST CENTRAL DIST. (6)	4214.84	3200.93	14680.15	3234.75	3294.90	-60.15	4724.56	3714.62	1009.94

TABLE 30

OAT PRODUCTION AND CONSUMPTION
(000 bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 1979-81			1990			2000		
	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)
COTTONWOOD	492.60	175.88	11964.38	462.35	209.56	252.79	675.29	243.67	431.62
JACKSON	338.37	162.43	18104.90	346.04	139.07	206.97	505.42	127.72	377.70
LINCOLN	1343.00	161.40	3941.75	1166.09	138.40	1027.69	1703.15	135.24	1567.91
LYON	1188.30	225.66	8602.37	1096.10	200.50	895.60	1600.92	193.31	1407.61
MURRAY	1168.56	246.61	8316.97	955.75	230.54	725.21	1395.93	232.13	1163.80
NOBLES	804.17	223.17	12123.04	801.16	152.13	649.03	1170.15	100.28	1069.87
PIPESTONE	1268.53	187.55	4024.12	1063.06	174.21	888.85	1552.66	174.93	1377.73
REDWOOD	755.24	188.90	14805.75	800.43	158.58	641.85	1169.07	144.76	1024.31
ROCK	808.43	208.01	7899.49	684.27	135.26	549.01	999.42	84.60	914.82
SOUTHWEST DIST. (7)	8167.19	1779.61	89782.66	7375.16	1538.25	5836.91	10771.90	1436.62	9335.28
BLUE EARTH	298.30	127.79	13696.04	296.52	113.99	182.53	433.08	94.25	338.83
BROWN	843.97	236.17	8782.27	673.34	216.43	456.91	983.46	220.01	763.45
FARIBAULT	371.27	152.88	18709.60	309.7	130.74	178.96	452.33	118.00	334.33
FREEBORN	681.70	277.00	17441.38	552.93	287.25	265.68	807.59	297.21	510.38
LESUEUR	265.13	160.13	5971.37	283.88	150.00	133.88	414.62	149.71	264.91
MARTIN	464.97	192.87	17579.20	367.16	188.55	178.61	536.27	220.76	315.51
NICOLLET	549.57	176.65	8091.32	442.17	166.19	275.98	645.82	166.67	479.15
RICE	848.60	333.05	7541.96	571.00	335.82	235.18	833.98	353.23	480.75
STEELE	569.40	198.34	10003.15	487.71	157.49	330.22	712.34	121.59	590.75
WASECA	268.33	125.43	11597.45	229.39	119.63	109.76	335.04	133.12	201.92
WATONWAN	219.66	100.67	10190.10	237.76	84.59	153.17	347.26	83.15	264.11
SOUTH CENTRAL DIST. (8)	5380.90	2080.97	129603.95	4451.56	1950.68	2500.88	6501.79	1957.71	4544.08
DAKOTA	810.63	176.70	7439.05	817.92	155.09	662.83	1194.63	137.12	1057.51
DODGE	794.47	224.99	10072.79	685.84	223.37	462.47	1001.72	237.42	764.30
FILLMORE	1735.00	538.57	11790.30	1361.29	624.66	736.63	1988.25	776.40	1211.85
GOODHUE	1954.83	476.86	8539.80	1431.80	598.91	832.89	2091.23	793.09	1298.14
HOUSTON	848.00	348.33	2766.80	588.15	418.13	170.02	859.03	529.14	329.89
MCNER	1290.53	206.47	16872.02	1116.47	143.32	973.15	1630.67	95.06	1535.61
OLMSTED	1476.06	326.68	10589.14	1089.92	344.71	745.21	1591.90	403.81	1188.09
WABASHA	1635.63	375.42	3452.51	1032.09	476.34	555.75	1507.44	646.58	860.86
WINONA	1452.61	419.79	3819.92	998.16	492.98	505.18	1457.88	615.54	842.34
SOUTHEAST DIST. (9)	11997.77	3093.81	75342.28	9121.47	3477.50	5643.97	13322.49	4234.18	9088.31
STATE TOTAL	85889.73	20578.00	411200.26	71054.40	20868.27	50186.13	103779.50	22998.38	80781.12

TABLE 31

BARLEY PRODUCTION AND CONSUMPTION
(000 bushels)

CROP REPORTING DISTRICT	AVE. 1979-81			1990			2000		
	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)
NORTHWEST (1)	32157.20	4203.92	27953.28	43941.65	4138.96	39802.69	67898.31	4375.45	63522.86
NORTH CENTRAL (2)	495.90	1105.66	-609.76	623.00	1296.32	-673.32	1028.66	1680.18	-651.52
NORTHEAST (3)	67.20	235.56	-168.36	65.47	216.22	-150.75	139.39	232.22	-92.83
WEST CENTRAL (4)	10489.16	831.85	9657.31	13477.57	798.14	12679.43	21757.81	866.11	20891.70
CENTRAL (5)	384.90	1613.79	-1228.89	476.99	1677.06	-1200.07	798.40	2007.78	-1209.38
EAST CENTRAL (6)	118.23	4671.50	-4553.27	159.83	5006.66	-4846.83	245.25	5886.31	-5641.06
SOUTHWEST (7)	195.67	906.05	-710.38	269.50	764.65	-495.15	405.88	725.82	-319.94
SOUTH CENTRAL (8)	122.03	829.49	-707.46	154.11	789.63	-635.52	253.14	851.10	-597.96
SOUTH EAST (9)	345.60	1318.52	-972.92	403.48	1662.72	-1259.24	716.88	2295.04	-1578.16
STATE TOTAL	44375.89	15716.34	28659.55	59571.60	16350.35	43221.25	93243.71	18920.00	74323.71

TABLE 32

BARLEY PRODUCTION AND CONSUMPTION
(000 bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 1979-81			1990			2000		
	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)
BECKER	2544.41	698.33	1846.08	2779.75	658.41	2121.34	6635.70	659.51	5976.19
CLAY	4414.19	470.22	3943.97	5903.12	475.70	5427.42	8208.23	503.38	7704.85
CLEARWATER	203.65	325.44	-121.79	223.22	388.16	-164.94	583.93	464.61	119.32
KITTSOON	1786.17	115.92	1670.25	4156.88	107.82	4049.06		123.33	-123.33
MAHONMEN	1891.87	288.43	1603.44	1906.19	261.81	1644.38	7059.39	247.30	6812.09
MARSHALL	4131.85	355.82	3776.03	6441.41	351.96	6089.45	4766.46	389.89	4376.57
NORMAN	4383.73	354.17	4029.56	5435.14	296.87	5138.27	12135.46	256.47	11878.99
PENNINGTON	2125.46	274.64	1850.82	2010.77	244.09	1766.68	8833.57	239.12	8594.45
POLK	8094.87	725.09	7369.78	12438.12	712.77	11725.35	6724.65	744.99	5979.66
RED LAKE	1239.60	198.83	1040.77	1298.92	193.54	1105.38	4820.10	190.46	4629.64
ROSEAU	1341.41	397.02	944.39	1348.13	447.81	900.32	8131.50	556.41	7575.09
NORTHWEST DIST. (1)	32157.20	4203.92	27953.28	43941.65	4138.96	39802.69	67898.31	4375.45	63522.86
BELTRAMI	139.53	352.21	-212.68	176.81	453.03	-276.22	291.94	624.19	-332.25
CASS	2.40	269.87	-267.47	39.72	250.02	-210.30	65.59	250.61	-185.02
HUBBARD	94.97	182.19	-87.22	141.65	206.45	-64.80	233.89	256.08	-22.19
ITASCA	1.27	163.61	-162.34	b	209.52	-209.52	b	288.99	-288.99
KOOCHICHING	64.30	63.37	.93	82.60	64.11	18.49	136.38	85.84	50.54
LAKE OF THE WOODS	172.10	74.42	97.68	182.21	113.19	69.02	300.85	174.48	126.37
NORTH CENTRAL DIST. (2)	495.90	1105.66	-609.76	623.00	1296.32	-673.32	1028.66	1680.18	-651.52
COOK	a	.85	-.85	b	b	b	b	b	b
LAKE	a	5.36	-5.36	b	b	b	b	b	b
ST. LOUIS	67.20	229.35	-162.15	b	b	b	b	b	b
NORTHEAST DIST. (3)	67.20	235.56	-168.36	65.47	216.22	-150.75	139.39	232.22	-92.83

TABLE 32

 BARLEY PRODUCTION AND CONSUMPTION
 (000 bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 1979-81			1990			2000		
	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)
BIG STONE	443.26	39.99	403.27	555.28	40.71	514.57	884.24	44.71	839.53
CHIPPENAW	79.86	37.05	42.81	124.94	12.70	112.24	199.08	-7.33	206.41
DOUGLAS	453.13	81.59	371.54	621.05	73.30	547.75	988.89	70.76	918.13
GRANT	1541.46	28.20	1513.26	1927.29	18.09	1909.20	3068.50	11.62	3056.88
LAC QUI PARLE	56.86	70.84	-13.98	106.88	75.96	30.92	221.06	92.03	129.03
OTTER TAIL	1904.24	231.27	1672.97	2629.34	236.80	2392.54	4889.20	267.74	4621.46
POPE	169.60	89.93	79.67	247.72	106.28	141.44	394.25	132.98	261.27
STEVENS	996.75	85.87	910.88	1520.40	97.57	1422.83	2832.87	127.28	2705.59
SWIFT	140.03	41.19	98.84	219.68	26.67	193.01	349.87	13.85	336.02
TRAVERSE	1340.51	24.50	1316.01	1140.47	27.70	1112.77	949.73	32.78	916.95
WILKIN	3338.30	21.63	3316.67	4349.62	17.05	4332.57	6925.08	14.26	6910.82
YELLOW MEDICINE	25.13	79.78	-54.65	34.64	65.31	-30.67	55.26	65.42	-10.16
WEST CENTRAL DIST. (4)	10489.16	831.85	9657.31	13477.57	798.14	12679.43	21757.81	866.11	20891.70
BENTON	20.36	94.06	-73.70	54.77	129.72	-74.95	129.70	179.52	-49.82
CARVER	24.89	95.27	-70.38	39.43	97.94	-58.51	90.79	117.39	-26.60
KANDIYOH	41.57	112.23	-70.66	29.16	105.72	-76.56	9.70	126.78	-117.08
MCLEOD	6.36	95.56	-89.20	16.83	73.45	-56.62	26.72	63.72	-37.00
MEeker	19.94	103.29	-83.35	8.80	91.92	-83.12	b	93.64	-93.64
MORRISON	24.04	167.95	-143.91	20.21	202.54	-182.33	32.10	265.63	-233.53
RENVILLE	13.29	76.28	-62.99	42.16	30.16	12.00	66.95	-7.77	67.72
SCOTT	6.22	65.38	-59.16	8.36	65.99	-57.63	13.28	81.46	-68.18
SHERBURNE	5.66	32.87	-27.21	11.29	35.59	-24.30	24.09	48.48	-24.39
SIBLEY	12.16	107.20	-95.04	21.21	97.86	-76.65	33.68	97.74	-64.06
STEARNS	112.84	328.49	-215.65	135.62	352.82	-217.20	215.36	433.83	-218.47
TODD	40.58	156.08	-115.50	14.15	190.27	-176.12	b	242.27	-242.27
WADENA	44.54	54.67	-10.13	60.69	68.55	-7.86	133.29	94.90	38.39
WRIGHT	12.44	124.47	-112.03	14.32	134.49	-120.17	22.74	163.20	-140.46
CENTRAL DIST. (5)	384.90	1613.79	-1228.89	476.99	1677.06	-1200.07	798.40	2007.78	-1209.38
AITKIN	25.88	279.19	-253.31	18.00	272.89	-254.89	22.62	298.72	-276.10
ANKA	4.60	133.35	-128.75	6.22	83.04	-76.82	7.81	42.51	-34.70
CARLTON	20.70	306.92	-286.22	30.89	321.33	-290.44	55.31	373.24	-317.93
CHISAGO	5.18	505.12	-499.94	22.98	466.63	-443.65	39.37	462.27	-422.90
CROW WING	8.74	252.95	-244.21	9.10	282.90	-273.80	11.44	353.91	-342.47
HENNEPIN	4.37	419.58	-415.21	b	412.19	-412.19	b	453.22	-453.22
ISANTI	9.43	326.49	-317.06	8.95	322.37	-313.42	11.24	346.53	-335.29
KANABEC	9.43	561.37	-551.94	14.76	759.54	-744.78	18.56	1070.40	-1051.84
MILLE LACS	8.74	729.04	-720.30	33.58	946.14	-912.56	59.60	1270.56	-1210.96
PINE	9.66	746.51	-736.85	15.35	860.92	-845.57	19.30	1059.83	-1040.53
RAMSEY	a	18.86	-18.86	b	18.90	-18.90	b	21.14	-21.14
WASHINGTON	11.50	392.14	-380.64	b	259.88	-259.88	b	133.99	-133.99
EAST CENTRAL DIST. (6)	118.23	4671.50	-4553.27	159.83	5006.66	-4846.83	245.25	5886.31	-5641.06

TABLE 32

BARLEY PRODUCTION AND CONSUMPTION
(000 bushels)

CROP REPORTING COUNTY & DISTRICT	AVE. 1979-81			1990			2000		
	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)	PRODUCTION	CONSUMPTION	SURPLUS (DEFICIT)
COTTONWOOD	5.28	94.47	-89.19	19.62	132.71	-113.09	39.37	176.11	-136.74
JACKSON	.00	82.40	-82.40	5.86	64.01	-58.15	12.39	55.14	-42.75
LINCOLN	116.56	83.10	33.46	82.04	67.62	14.42	68.03	64.64	3.39
LYON	28.51	124.30	-95.79	65.74	102.95	-37.21	118.82	96.00	22.82
MURRAY	8.87	127.07	-118.20	11.76	126.64	-114.88	16.11	140.92	-124.81
NOBLES	9.29	102.60	-93.31	34.96	56.32	-21.36	65.97	21.20	44.77
PIPESTONE	12.67	91.81	-79.14	b	79.32	-79.32	b	77.15	-77.15
REDWOOD	9.29	90.09	-80.80	22.92	74.10	-51.18	31.41	68.86	-37.45
ROCK	5.17	110.19	-105.02	26.61	60.97	-34.36	53.78	25.79	27.99
SOUTHWEST DIST. (7)	195.67	906.05	-710.38	269.50	764.65	-495.15	405.88	725.82	-319.94
BLUE EARTH	30.74	63.46	-32.72	42.80	63.63	-20.83	76.64	57.87	18.77
BROWN	14.96	84.91	-69.95	36.02	70.67	-34.65	64.96	70.36	-5.40
FARIBAUT	.00	73.32	-73.32	3.45	62.33	-58.88	4.38	58.00	-53.62
FREEDORN	.00	107.96	-107.96	b	124.40	-124.40	b	152.14	-152.14
LESUEUR	12.06	63.37	-51.31	11.38	58.87	-47.49	14.44	62.15	-47.71
MARTIN	5.80	97.64	-91.84	b	94.31	-94.31	b	112.61	-112.61
NICOLLET	.00	63.28	-63.28	6.91	59.24	-52.33	8.78	62.40	-53.62
RICE	40.60	110.74	-70.14	38.09	118.50	-80.41	64.32	140.37	-76.05
STEELE	6.03	70.11	-64.08	b	58.57	-58.57	b	50.68	-50.68
WASECA	6.03	44.01	-37.98	5.95	37.09	-31.14	7.55	42.01	-34.46
WATONWAN	5.80	50.70	-44.90	9.51	42.02	-32.51	12.07	42.49	-30.42
SOUTH CENTRAL DIST. (8)	122.03	829.49	-707.46	154.11	789.63	-635.52	253.14	851.10	-597.96
DAKOTA	49.27	74.15	-24.88	47.45	72.86	-25.41	77.99	73.73	4.26
DODGE	8.80	89.02	-80.22	3.06	90.02	-86.96	b	102.78	-102.78
FILLMORE	18.30	240.62	-222.32	21.68	304.26	-282.58	35.64	420.39	-384.75
GOODHUE	137.96	189.94	-51.98	133.20	280.70	-147.50	218.92	431.23	-212.31
HOUSTON	20.06	165.04	-144.98	29.09	234.68	-205.59	47.79	336.86	-289.07
MOWER	8.62	80.98	-72.36	.31	41.59	-41.28	b	11.40	-11.40
OLMSTED	8.45	157.79	-149.34	6.68	189.98	-183.30	b	255.73	-255.73
WABASHA	45.75	166.82	-121.07	86.25	246.16	-159.91	174.70	388.34	-213.64
WINONA	48.39	154.16	-105.77	75.76	202.46	-126.70	161.84	274.58	-112.74
SOUTHEAST DIST. (9)	345.60	1318.52	-972.92	403.48	1662.72	-1259.24	716.88	2295.04	-1578.16
STATE TOTAL	44375.89	15716.34	28659.55	59571.60	16350.35	43221.25	93243.71	18920.00	74323.71

TABLE 33 ESTIMATED PROTEIN CONSUMPTION, 40% PROTEIN MEAL EQUIVALENT
(tons)

CROP REPORTING DISTRICT	AVE. 1979-81	1990	2000
	CONSUMPTION	ESTIMATED CONSUMPTION	CONSUMPTION
NORTHWEST (1)	93816.83	106893.80	119457.69
NORTH CENTRAL (2)	18841.96	22655.84	30689.04
NORTHEAST (3)	5589.71	6653.12	7900.94
WEST CENTRAL (4)	182712.07	189027.57	210585.24
CENTRAL (5)	525085.11	594214.03	721128.52
EAST CENTRAL (6)	89047.66	96889.15	114906.83
SOUTHWEST (7)	203464.39	205635.31	222176.99
SOUTH CENTRAL (8)	235686.78	278057.77	336582.35
SOUTH EAST (9)	222751.60	246120.74	301920.18
STATE TOTAL	1576996.10	1746147.34	2065347.78

TABLE 34 ESTIMATED PROTEIN CONSUMPTION, 40% PROTEIN MEAL EQUIVALENT
(tons)

CROP REPORTING COUNTY & DISTRICT	AVE. 1979-81	1990	2000
	CONSUMPTION	ESTIMATED CONSUMPTION	CONSUMPTION
BECKER	21653.24	21295.11	22673.94
CLAY	13346.25	24774.30	35068.58
CLEARWATER	10774.61	15700.87	17138.12
KITTSOON	1507.79	1284.64	1410.97
MAHNOMEN	3821.23	3514.12	3339.73
MARSHALL	5612.55	4894.62	5257.21
NORMAN	5452.30	4284.62	3891.09
PENNINGTON	3997.24	3102.42	3021.93
POLK	12154.74	10558.02	8026.65
RED LAKE	3606.25	4483.22	4542.91
ROSEAU	11890.43	13000.19	15087.39
NORTHWEST DIST. (1)	93816.83	106893.80	119457.69
BELTRAMMI	5762.25	8203.16	12581.13
CASS	4404.36	3900.05	3674.58
HUBBARD	3251.57	3965.92	5050.23
ITASCA	3021.52	3834.15	5635.33
KOOCHICHING	1228.96	981.77	1161.21
LAKE OF THE WOODS	1174.07	1771.54	2586.58
NORTH CENTRAL DIST. (2)	18841.96	22655.84	30689.04
COOK	12.48	b	b
LAKE	131.01	b	b
ST. LOUIS	5446.22	b	b
NORHEAST DIST. (3)	5589.71	6653.12	7900.94

TABLE 34 ESTIMATED PROTEIN CONSUMPTION, 40% PROTEIN MEAL EQUIVALENT
(tons)

CROP REPORTING COUNTY & DISTRICT	AVE. 1979-81	1990	2000
	CONSUMPTION	ESTIMATED CONSUMPTION	CONSUMPTION
BIG STONE	7098.96	7367.11	7945.87
CHIPPEWA	12422.86	12788.38	14063.84
DOUGLAS	16107.28	16232.76	17739.70
GRANT	6336.53	6481.55	7730.76
LAC QUI PARLE	13192.75	14455.26	16591.81
OTTER TAIL	61695.68	63745.42	69927.45
POPE	13619.02	14358.20	16324.46
STEVENS	15494.56	17741.90	21787.71
SWIFT	9753.36	7406.49	5811.90
TRAVERSE	3953.51	3660.47	3223.30
WILKIN	3924.88	2859.26	2137.59
YELLOW MEDICINE	19112.78	21930.46	27301.15
WEST CENTRAL DIST. (4)	182712.07	189027.57	210585.24
BENTON	38442.54	51396.45	69985.08
CARVER	17573.04	18905.38	21741.26
KANDIYOHKI	53937.23	54562.71	62565.82
MCLEOD	21375.67	19431.21	22095.20
MEEKER	46811.47	50053.16	56721.05
MORRISON	64742.45	80906.22	102182.20
RENVILLE	18861.99	15965.97	18779.34
SCOTT	10935.48	10953.37	12770.68
SHERBURNE	7453.76	5545.87	7147.19
SIBLEY	34585.83	44191.10	53502.90
STEARNS	118469.39	137256.71	168811.12
TODD	47524.88	56802.65	67461.23
WADENA	18421.23	19855.16	24181.32
WRIGHT	25951.01	28391.59	33188.05
CENTRAL DIST. (5)	525085.11	594214.03	721128.52
AITKIN	12449.48	12522.24	13816.56
ANOKA	2143.87	616.80	156.50
CARLTON	3417.58	3482.05	4023.54
CHISAGO	10951.37	10426.80	10129.28
CROW WING	6964.11	8106.66	10074.20
HENNEPIN	5818.85	5654.59	5694.61
ISANTI	6710.90	5738.85	6858.66
KANABEC	8215.06	11908.34	18086.50
MILLE LACS	10997.55	15696.54	22671.39
PINE	15920.87	19929.31	22866.12
RAMSEY	198.77	100.54	107.38
WASHINGTON	5259.55	2708.40	422.79
EAST CENTRAL DIST. (6)	89047.66	96889.15	114906.83

TABLE 34 ESTIMATED PROTEIN CONSUMPTION, 40% PROTEIN MEAL EQUIVALENT
(tons)

CROP REPORTING COUNTY & DISTRICT	AVE. 1979-81	1990	2000
	CONSUMPTION	ESTIMATED CONSUMPTION	CONSUMPTION
COTTONWOOD	19978.50	22683.52	25964.65
JACKSON	23302.96	25131.32	29191.63
LINCOLN	16153.65	17129.41	20481.77
LYON	25907.18	29193.73	34402.25
MURRAY	25518.25	26201.78	28465.36
NOBLES	29500.32	26367.08	24877.15
PIPESTONE	16903.78	16429.46	17259.04
REDWOOD	23917.53	24580.47	27464.92
ROCK	22282.26	17917.69	14071.17
SOUTHWEST DIST. (7)	203464.39	205635.31	222176.99
BLUE EARTH	16766.74	15961.71	14444.55
BROWN	25706.03	30762.75	38705.22
FARIBAULT	20708.27	21808.49	22032.27
FREEBORN	33468.11	44426.90	56584.91
LESUEUR	14312.14	15252.05	16427.75
MARTIN	31755.81	42013.10	58597.65
NICOLLET	18099.01	20110.61	23900.12
RICE	31544.58	38308.77	47518.33
STEELE	16818.51	14795.75	11407.82
WASECA	13679.09	18538.38	25852.20
WATONWAN	12829.13	16079.50	21108.15
SOUTH CENTRAL DIST. (8)	235686.78	278057.77	336582.35
DAKOTA	12941.06	14436.48	17400.22
DODGE	16931.00	18738.50	23260.92
FILLMORE	46086.31	52171.44	64197.65
GOODHUE	27277.01	33510.18	45126.64
HOUSTON	24022.82	27638.63	35013.51
MOWER	23861.90	20392.33	19762.79
OLMSTED	19520.50	19949.54	23036.59
WABASHA	23066.46	27401.39	35395.25
WINONA	29044.96	31881.93	38724.41
SOUTHEAST DIST. (9)	222751.60	246120.74	301920.18
STATE TOTAL	1576996.10	1746147.34	2065347.78

APPENDIX A

STATE MARKET SHARE PROJECTIONS TO 1990 and 2000¹

GRAIN SHARE PROJECTIONS (MN/US %)

	<u>1990</u>	<u>2000</u>
CORN	9.612	10.716
SOYBEANS	8.8095	9.8933
WHEAT	5.6684	6.3624
OATS	18.080	18.08
BARLEY	13.00	15.2359

LIVESTOCK SHARE PROJECTIONS (MN/US %)

	<u>1990</u>	<u>2000</u>
MILK COWS	8.188	8.348
BEEF COWS	1.186	0.939
CATTLE ON FEED	3.438	3.450
OTHER CATTLE	3.785	3.823
PIGS	10.157	12.369
SHEEP	2.152	2.152
LAMBS FED	2.675	2.675
LAYING HENS	3.385	3.385
BROILERS	0.687	0.884
OTHER CHICKEN	7.387	6.211
TURKEYS	13.589	11.441

¹All figures: state share as a percentage of national.

APPENDIX B

Projections of Crop Production to 1990 and 2000^{1/}

	Unit	Year			
		1982-83	1983-84	1990	2000
Feed grain Production					
Corn	mil. bu.	8,359	4,166	8,420	11,843
Sorghum Grain	mil. bu.	841	483	865	1,174
Oats	mil. bu.	621	477	393	574
Barley	mil. bu.	522	519	458	612
Total	mil. MT	254	137	251	349
Domestic Use	mil. MT	171	154	170	214
Exports	mil. MT	54	56	84	138
Wheat Production					
Production	mil. bu.	2,812	2,420	2,810	3,740
Domestic Use	mil. bu.	934	1,119	1,098	1,242
Exports	mil. bu.	1,509	1,425	1,764	2,388
Soybeans Production					
Production	mil. bu.	2,229	1,567	2,410	3,364
Crush	mil. bu.	1,108	970	1,340	1,848
Feed, seed, Residual.	mil. bu.	99	77	120	129
Exports	mil. bu.	905	760	989	1,320

^{1/}Based on the MSU Agriculture Model.

APPENDIX C

Projections of Livestock Production to 1990 and 2000^{1/}

	Unit	Year	
		1990	2000
Milk cows, Jan. 1	1000	9,650	9,370
Beef cows, Jan. 1	1000	37,800	45,043
Cattle on feed	1000	25,900	29,952
Other cattle, Jan. 1	1000	52,000	60,000
Pigs	mil.	101.0	113.4
Laying hens	mil.	287	298
Broilers			
No.	mil.	5,029	5,788
Liveweight	mil. lbs.	20,100	23,150
Turkeys			
No.	mil.	212	300
Liveweight	mil. lbs.	4,020	5,391
Other chickens			
No.	mil.	327	376
Liveweight	mil. lbs.	1,308	1,505

^{1/}Based on the MSU Agriculture Model.

APPENDIX D

Livestock Class Definitions

Definitions

Milk cows = cows and heifers that have calved used for milk.

Beef cows = cows and heifers that have calved used for beef.

Cattle on feed = cattle placed on feed Oct.-Dec. previous year, plus Jan.-March, April-June, and July-Sept. present year.

Other cattle = total cattle - (beef cows + milk cows + cattle on feed, Jan. 1)

Pigs = production equals previous fall pigs saved plus present year spring pigs saved.

Laying hens = average number of layers.

Broilers = commercial broilers.

Turkeys = turkeys: numbers raised.

APPENDIX E

FEED RATIONS: SOUTHERN DISTRICTS, (DISTRICTS 4,5,7,8,9)

CLASS OF LIVESTOCK	1980				1990				2000			
	CORN, BU.	OATS, BU.	BARLEY, BU.	PROTEIN, #	CORN, BU.	OATS, BU.	BARLEY, BU.	PROTEIN, #	CORN, BU.	OATS, BU.	BARLEY, BU.	PROTEIN, #
MILK COWS	78.60	8.92	1.19	720.80	84.89	9.63	1.28	778.46	91.18	10.35	1.38	836.13
BEEF COWS	1.35			50.00	1.42	.00	.00	52.50	1.49	.00	.00	55.00
CATTLE ON FEED	55.00			227.50	52.50	.00	.00	217.15	49.50	.00	.00	204.75
OTHER CATTLE	12.70	2.70	2.35	140.74	12.88	2.61	2.46	143.00	13.01	2.52	2.57	143.27
PIGS	9.99	.27	.12	143.39	9.49	.26	.11	136.22	8.99	.24	.11	129.05
LAYING HENS	1.26	.14	.02	33.99	1.23	.13	.02	33.14	1.20	.13	.02	32.29
BROILERS	.10			3.00	.10	.00	.00	2.93	.09	.00	.00	2.85
TURKEYS	.75	.02		18.43	.71	.02	.00	17.51	.67	.02	.00	16.59

APPENDIX F

FEED RATIONS: NORTHERN DISTRICTS, (DISTRICTS 1,2,3,6)

2000

1990

1980

CLASS OF LIVESTOCK:	1980			1990			2000					
	CORN,BU.	OATS,BU.	BARLEY,BU.	PROTEIN,#	CORN,BU.	OATS,BU.	BARLEY,BU.	PROTEIN,#	CORN,BU.	OATS,BU.	BARLEY,BU.	PROTEIN,#
MILK COWS	43.33	26.77	32.71	720.80	46.80	28.91	35.32	778.46	50.26	31.05	37.94	836.13
BEEF COWS	.54	.33	.77	50.00	.57	.35	.81	52.50	.59	.36	.85	55.00
CATTLE ON FEED	22.00	5.58	36.20	227.50	21.00	5.33	34.55	217.15	19.80	5.02	32.58	201.75
OTHER CATTLE	6.98	3.39	6.60	140.74	7.08	3.28	6.92	143.00	7.15	3.16	7.23	145.27
PIGS	9.58	.99	1.31	157.73	9.10	.94	1.25	149.84	8.62	.89	1.18	141.96
LAYING HENS	1.26	.14	.02	33.99	1.23	.13	.02	33.14	1.20	.13	.02	32.29
BROILERS	.10			3.00	.10	.00	.00	2.93	.09	.00	.00	2.85
TURKEYS	.75	.02		18.43	.71	.02	.00	17.51	.67	.02	.00	16.59

APPENDIX G

Economic assumptions used to forecast national production levels.

a) U.S. percapita growth in disposable income:

1985-86	1987-88	1988 +
2.86%	2.85%	2.83%

b) U.S. population growth:

1986	1988 +
.91%	.85-.77%

c) Consumer Price Index (CPI)

1985	1986	1987	1988 +
4.8	4.9	5.1	5.2-6.0

d) Real Interest Rates (90 day bankers acceptance minus inflation)

1985	1986	1987	1988 +
6.3%	6.0%	5.2%	4.8-3.0%

e) Real Growth Rates in Various Economies (Real GNP Growth Rates using standard population projections 1986 +)

Canada = 2.2%	Argentina = 2.7%
Brazil = 3.6%	Australia = 3.4%
USSR = 3.0%	Soviet Bloc = 3.0%
LDC = 4.5%	China = 2.5-3.8%