

# MINNESOTA'S FARM CASH RENTAL MARKET: 1988

- WITH ESTIMATES FOR 1989 -

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## SUMMARY OF FINDINGS

*Farm cash rents in Minnesota for 1988 continued a decline that started in 1983. For the state, cash rents for average quality land were about \$49 per acre in 1988, compared with \$64 in 1983. By region, rents ranged from \$75 per acre in Region 1 (South Central) to \$10 per acre in Region 10 (Northeast).*

*The current ratio of average cash rents to assessors estimated market value of land in 1988 is about 9.5 percent, with a range of 9 to 11 percent in the main agricultural areas. This compares with about a 5 percent ratio in the early 1980's. The average cash rent per crop equivalency point (CER) in 1988 was about 82 cents for the state. In the southern one-third of the state, rents ranged from 90 cents to \$1.00 per CER; in the lower Red River Valley and west central Minnesota they ranged from 75 cents to 80 cents; while in the northern valley and the area just north of the twin cities rents were about 65 cents per CER.*

*Rents for 1989 were expected to be up slightly (1 to 2 percent). Rents in the southern one-third of the state were expected to be up 2 to 5 percent, while rents in west central and north west Minnesota will likely be down slightly. Because of poor crop conditions the past two years, rents in central Minnesota will likely be down at least 5 percent.*

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## INTRODUCTION

This publication reports the findings of a farm cash rental survey conducted in the Fall of 1988. It is divided into four parts. Part I describes the survey and analysis methods used in the study. Part II discusses the survey findings as to the farm cash rental market for 1988, with comparisons of rents for years since 1978. Part III describes the relationship between cash rents and assessors' estimated market value of farm land and the productivity of land as measured in crop equivalency ratings (CER). Part IV compares the expected cash rents for 1989 with 1988 by region and by quality of land.

## SURVEY AND ANALYSIS METHODS USED

Over the past decade, data on Minnesota farm cash rents have been obtained from several sources. Between 1978 and 1986, the Minnesota Department of Revenue annually collected farm cash rental information under a statutory requirement for calculating state aids to school districts. Because of legislative changes, this survey was discontinued in 1987. In an effort to maintain the continuity of this cash rental data series, the University of Minnesota's Extension Service conducted a similar study of cash rental rates in 1987.

This year's survey (1988) represents the collaborative effort of the Minnesota State Planning Agency, the Minnesota Department of Revenue, and the Minnesota Extension Service. The population surveyed for 1988 farm cash rental data were the township boards of Greater Minnesota (outside of the seven-county metro area).<sup>1</sup> In early fall, questionnaires were mailed to the clerks of 1644 Minnesota townships which contained significant amounts of agricultural land. The township boards were asked to provide their general impressions of typical cash rents for various grades of land in 1988, as well as their current expectations for rents in 1989, and other general information about the characteristics of the cash rental market in their area. A total of 929 completed responses were received, for a response rate of 57 percent. While the population sampled and the survey methods used have changed somewhat between 1986 and 1988, it appears

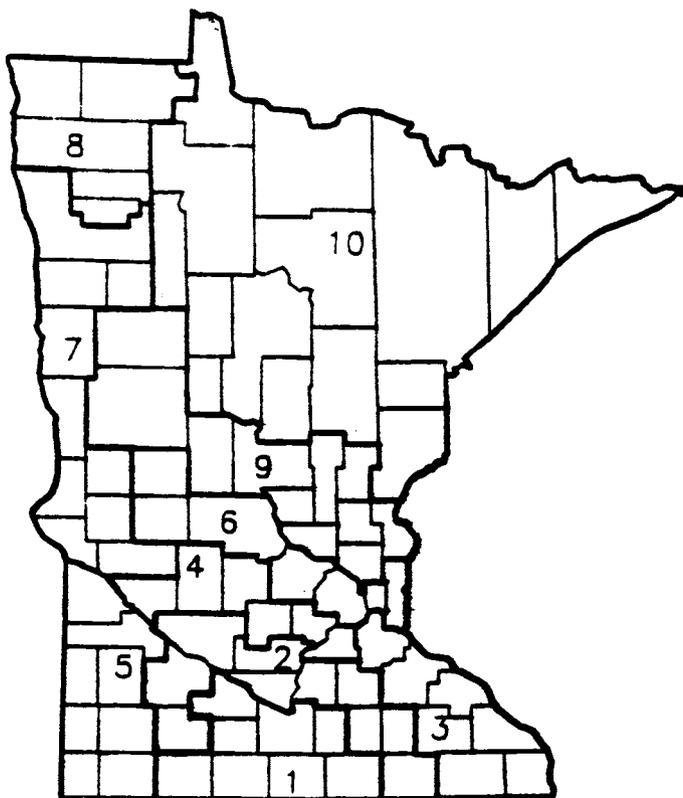


Figure 1 - Minnesota Cash Rental Regions

<sup>1</sup> The authors wish to thank these township boards for their excellent cooperation in this study. Thanks are also extended to the Minnesota chapter of the American Society of Farm Managers and Rural Appraisers for their financial support of this survey.

that the resulting data still provide a useful perspective of how Minnesota's farm cash rental market has changed over this period.

All cash rents and related data were analyzed by ten major cash rental regions (figure 1). The cash rental regions were established based on similarity of cash rent levels, geographic location, and topographic, climatic, and crop characteristics. Regions 1 through 5, representing the southern one-third of the state, are predominantly agricultural and have historically contained the highest-valued farmland in Minnesota. Regions 6 through 10 include the Red River Valley, the transitional zone between agriculture and forestry, and the heavily timbered northern part of the state.

All regional statistics presented are averages, weighted by the tillable acreage in each county. Statewide figures represent a similar weighted average of the regional data.

### FARM CASH RENTS FOR AVERAGE QUALITY LAND, BY REGION, 1978-1988

Table 1 reports the estimated average cash rents paid in 1988 by regions of the state, as well as the estimated rents paid over the previous 10 years. As noted in the footnote to the table, the rents for the first nine years (1978-86) were collected using the same survey approach, while rents for 1987 and 1988 used different survey approaches. However, the reported rents for the past three years appear to be quite consistent, with the possible exception of those reported for Regions 9 and 10. (The north-north east areas of the state.)

Table 1. Average Cash Rents Reported by Regions, Minnesota, 1978-1988<sup>2</sup> (Dollars Per Acre)

Year:	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Region:											
1	\$75.12	\$83.33	\$90.53	\$103.82	\$98.51	\$106.66	\$114.42	\$104.36	\$83.79	\$76.30	\$76.22
2	\$60.51	\$66.74	\$73.82	\$82.48	\$87.75	\$94.82	\$90.49	\$88.28	\$73.82	\$64.35	\$66.44
3	\$52.73	\$57.62	\$65.22	\$73.68	\$70.82	\$76.06	\$73.32	\$70.25	\$57.47	\$58.36	\$59.58
4	\$49.21	\$54.81	\$61.22	\$69.41	\$69.15	\$73.44	\$74.73	\$71.83	\$57.12	\$59.72	\$53.92
5	\$47.79	\$52.43	\$56.28	\$66.14	\$65.05	\$66.16	\$67.20	\$69.94	\$59.00	\$59.04	\$56.56
6	\$29.82	\$29.38	\$35.76	\$37.86	\$38.82	\$43.80	\$45.36	\$42.26	\$37.70	\$38.79	\$34.60
7	\$33.20	\$38.19	\$44.27	\$48.19	\$48.43	\$52.26	\$50.94	\$51.10	\$49.30	\$47.89	\$43.00
8	\$21.04	\$24.20	\$30.09	\$34.17	\$32.56	\$31.75	\$31.13	\$31.65	\$29.77	\$29.58	\$31.23
9	\$19.94	\$22.50	\$24.43	\$27.14	\$23.12	\$28.86	\$25.87	\$28.27	\$26.68	\$32.28	\$24.38
10	\$11.30	\$13.26	\$13.20	\$12.74	\$11.88	\$16.62	\$12.63	\$13.45	\$11.95	\$18.74	\$10.26
State-Wide	\$43.00	\$47.69	\$53.31	\$60.01	\$59.29	\$63.74	\$63.44	\$61.95	\$53.14	\$52.38	\$49.46

- <sup>2</sup>Sources:
- o Cash rents for 1978-1986 were collected by county assessors and represented actual rents reported by tenants and landlords.
  - o Cash rents for 1987 were collected by county extension agents and represented actual rents reported by tenants and landowners.
  - o Cash rents for 1988 were collected from Township Boards and represented their estimate as to what average quality land was rented for in their township.

In 1988, Minnesota's statewide average cash rent was about \$49 per acre. This represented a six percent (\$2.92 per acre) decline from the previous year and was the fifth straight year in which the statewide average cash rent had declined. Reported rents in 1988 reflect about a 25 percent decline from the peak in 1983.

On a regional basis, rents in all regions except Regions 3 and 8 showed a decline. Cash rents ranged from about \$76 per acre in the extreme south-central part of the state (Region 1) to just over \$10 per acre in north-northeast Minnesota (Region 10). As illustrated in figure 2, most agricultural areas of southern and western Minnesota had cash rents averaging between \$50 and \$75 per acre. Regions 7 and 8 in the northwest part of the state reported somewhat lower rents, typically ranging from \$30 to \$45 per acre.

## RELATIONSHIP BETWEEN AVERAGE CASH RENTS AND ESTIMATED LAND VALUES AND LAND PRODUCTIVITY RATINGS (CER)

Table 2 indicates the relationship between average cash rents to assessors' estimated market value of land expressed as a percentage. In 1988, statewide rate was about 9.5 percent, the highest in the nine years that data of this type had been collected. If contrasted to 1982, the statewide average capitalization rate has increased about 80 percent (from 5.1 to 9.4). Since the farmland sales market has shown signs of strengthening during the past year, the 1988 average capitalization rate may mark a cyclical peak.

Table 2. Average Cash Rent as a Percent of Assessors' Estimated Market Value, by Region, Minnesota, 1980-88.

Year:	1980	1981	1982	1983	1984	1985	1986	1987	1988
Region:									
1	5.7	5.5	4.6	4.8	5.4	6.3	7.3	9.6	9.9
2	5.9	5.4	5.0	5.2	5.4	5.9	7.1	10.0	9.5
3	7.0	6.7	5.3	5.6	5.9	6.5	7.1	10.8	11.4
4	6.1	5.4	4.8	4.6	5.1	5.6	5.8	8.4	8.8
5	6.4	6.0	5.5	5.7	6.2	7.2	8.2	11.3	10.7
6	5.9	5.1	4.9	5.1	4.8	4.9	5.1	6.0	10.6
7	7.2	6.0	5.7	6.0	5.9	6.4	7.0	8.3	9.8
8	8.7	6.4	5.9	5.5	5.5	6.5	7.3	9.1	10.2
9	7.0	5.3	4.3	5.1	4.1	4.8	5.1	6.5	5.6
10	6.9	4.7	4.2	4.8	4.0	4.2	4.3	7.3	4.9
Statewide	6.7	5.7	5.1	5.3	5.4	6.1	6.8	9.2	9.4

On a regional basis, capitalization rates for 1988 ranged from about 5 percent in north-northeast Minnesota (Regions 9 and 10) to over 11 percent in the southeast (Region 3). For the major agricultural areas of the state, capitalization rates were markedly similar, ranging from 9 to 11 percent.



A comparison was also made between average cash rents in 1988 and Crop Equivalency Ratings (CERs), to determine the relationship between rents and soil productivity. A CER is a ranking of soils, ranging from 0 to 100, indicating the relative economic returns to crop production expected under typical management. Township average CERs, aggregated from the individual soil types in a township and the CERs of each, were compared with the average 1988 cash rents reported by township. Based on the rent and CER data, there appears to be a fairly strong correlation (70 percent statewide) between cash rents and soil productivity as represented by CERs. The results are reported in Table 3 by region, expressed as dollars of cash rent per CER point.

Table 3. Average Cash Rent Per Crop Equivalency Rating (CER) Point, and Percent of Leased Land Rented for Cash by Region, Minnesota, 1988.

Region:	<u>\$ Rent/CER</u>	<u>Percent of Leased Land Rented for Cash</u>
1	1.02	73.3
2	0.95	68.1
3	0.89	66.7
4	0.82	70.5
5	0.89	46.3
6	0.79	68.2
7	0.76	64.3
8	0.67	53.5
9	0.65	65.2
10	0.40	46.3
Statewide	0.82	62.9

Statewide, the 1988 average cash rent per CER was \$0.82. In the southern one-third of the state (Regions 1, 2, 3, and 5) the typical ratio was about 90 cents to \$1 per CER. In Regions 4, 6 and 7, the ratio was about 75 to 80 cents per CER. In Regions 8 and 9 the ratio dropped to about 65 cents per CER.

Participating township boards were also asked to estimate the percentage of leased land in their township that is being rented on a cash basis as opposed to other forms of rental, such as crop share. The results are reported in the second column of Table 3. Statewide, it was estimated that about 63 percent of all leased farmland is contracted on a cash basis. However, there is considerable variation in this percentage among regions of the state. For example, in Region 1, which historically has had the state's highest cash rental rates and fairly low climate risk to crop production, about 3 of every 4 leases are negotiated on a cash basis. However, in areas where the weather poses greater risks, tenants seek to share more of these risks with their landlords. This is evident in Region 5 (southwest Minnesota), which has traditionally been considered a high-risk area. In that part of the state, township boards reported that less than half of agricultural leases were for cash. Risk factors, such as weather, do appear to influence cropland rental arrangements.

## EXPECTED FARM CASH RENTS FOR 1989

Township boards were also asked to estimate likely cash rents for low, average and high quality land for their Township in 1989. The comparison between 1988 and expected 1989 rents is shown in Table 4. On a statewide basis, 1989 cash rents are expected to be up about 1.5 percent over 1988.

Table 4. Expected Change in Cash Rents by Land Quality, by Region 1, Minnesota, 1988-1989

Region:	-----1988-----			---1989 Expected Rent---			Expected % Change		
	High	Average	Low	High	Average	Low	High	Average	Low
1	\$87.90	\$76.22	\$60.14	\$92.20	\$79.47	\$62.90	4.9%	4.3%	4.6%
2	\$79.33	\$66.44	\$50.77	\$81.07	\$67.76	\$51.60	2.2%	2.0%	1.6%
3	\$75.55	\$59.58	\$42.35	\$77.87	\$61.33	\$43.87	3.1%	2.9%	3.6%
4	\$65.99	\$53.92	\$40.71	\$65.61	\$53.75	\$39.82	-0.6%	-0.3%	-2.2%
5	\$67.74	\$56.56	\$43.04	\$69.46	\$57.32	\$44.45	2.5%	1.3%	3.3%
6	\$45.08	\$34.60	\$21.09	\$43.36	\$33.03	\$20.12	-3.8%	-4.5%	-4.6%
7	\$52.48	\$43.00	\$31.57	\$52.23	\$42.70	\$31.31	-0.5%	-0.7%	-0.8%
8	\$38.47	\$31.23	\$22.07	\$38.07	\$30.88	\$21.89	-1.0%	-1.1%	-0.8%
9	\$32.55	\$24.38	\$16.05	\$32.75	\$24.47	\$16.07	0.6%	0.4%	0.1%
10	\$14.81	\$10.26	\$7.42	\$14.66	\$10.12	\$7.33	-1.0%	-1.4%	-1.2%
Statewide	\$60.06	\$49.46	\$36.74	\$61.02	\$50.07	\$37.30	1.6%	1.2%	1.5%

Rents are expected to be basically flat to up slightly over much of the state, with the greatest increases expected in southern Minnesota (Regions 1, 2, 3, and 5). A modest decline in rents is expected in Regions 4, 7 and 8, while in central Minnesota (Region 6) indications are that rents will decrease by 4 to 5 percent. This is the region most severely affected by the drought of 1988, and drought-related effects will apparently influence the cash rental market there in 1989. Because of the wide variation in crop conditions within many of these regions, it is likely that the pattern of rents will vary more within regions than between them in 1989.

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