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**2002 MICHIGAN LAND VALUES**

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## 2002 MICHIGAN LAND VALUES

Land is a natural resource that is valued for many reasons. Farmers utilize land to earn their livelihood and as a store of wealth for future retirement. Potential rural residents have increasingly sought green space for a home site and pursuit of a life style. Developers seek financial opportunities to invest and "develop" the land for non-farm uses. Recreational needs are often met with use of land. For some, land is viewed as an investment and hedge against inflation. This myriad of demands for land combined with its fixed supply continually alters its market price as a monetary measure of its perceived value.

Land prices and expected changes in land prices are frequently asked questions. There are several sources of information on Michigan farmland values. The Federal Reserve Bank of Chicago reports quarterly farmland values for each state in its district based on a survey of lenders; however, Michigan farmland sales transactions are sporadically reported due to insufficient survey response. The USDA estimates the value of farmland and service buildings each year for every state based on a survey of farmers. Both of these surveys provide useful information on aggregate farmland values in the state. For land value information to be useful for individual decision-making, a more disaggregated measure of land values based on land type and use is desired. The state equalized value (SEV) used to determine property taxes is set by township assessors at an estimated 50 percent of the market value of farmland based on comparative sales studies conducted annually. County equalization directors review the assessment rolls of local township assessors and make adjustments based on sales data. SEVs are useful in determining representative land values but are handicapped by the historical sales perspective upon which the appraisals are based.

Michigan State University (MSU) has also collected data on land values since 1991 by mail survey. The goal of the MSU study is to provide information on the value of land based on its production use. The survey asks for information on the value of tilled and untilled land used to produce field crops as well as information on the value of land that is used for sugar beets and for irrigated crops. The study also provides information on leasing rates and practices in the state. In addition, the study collects information on the non-

agriculture use value of farmland. The remainder of this paper contains the results for the MSU land value survey conducted in Spring 2002.

## **Survey Method**

The survey sample consists of members of the Farm Managers and Rural Appraisers Association, Michigan agricultural lenders, county equalization directors in Michigan, and members of the Farm Bureau Advisory Committees on feed grains, oil seeds and wheat, and dry beans and sugar beets. After accounting for overlap between the different groups, the total sample consisted of 465 potential respondents. A total of 135 questionnaires were returned with useable information reported on farmland. There were 106 responses received from the southern half of the lower peninsula (area 2 in Figure 1). The remaining 29 responses were received from the upper and northern-lower peninsula (area 1 in Figure 1). This is a reasonable correspondence between the location of respondents and the geographic distribution of production in the state. Figure 1 shows the distribution of respondents by county and Figure 2 shows the total number of responses by Agricultural Statistics District in the state.

It should be noted that some respondents may have been reporting as a pool of individuals who received the questionnaire, such as a Farm Credit Service branch or an appraisal group. It is also important to recognize that the survey respondents, in many cases, were experts on land values in their areas. These people often had access to a significant amount of land appraisal, transaction, and leasing information.

Each sample member received a cover letter encouraging their participation in the study and a two-page questionnaire asking for information on farmland. Respondents were to be provided a summary of the survey results upon request. A follow-up letter asking for participation in the survey and a second copy of the questionnaire was sent to non respondents approximately four weeks after the original questionnaire was sent. Copies of the cover letter and questionnaire used in the survey are included in the Appendix.

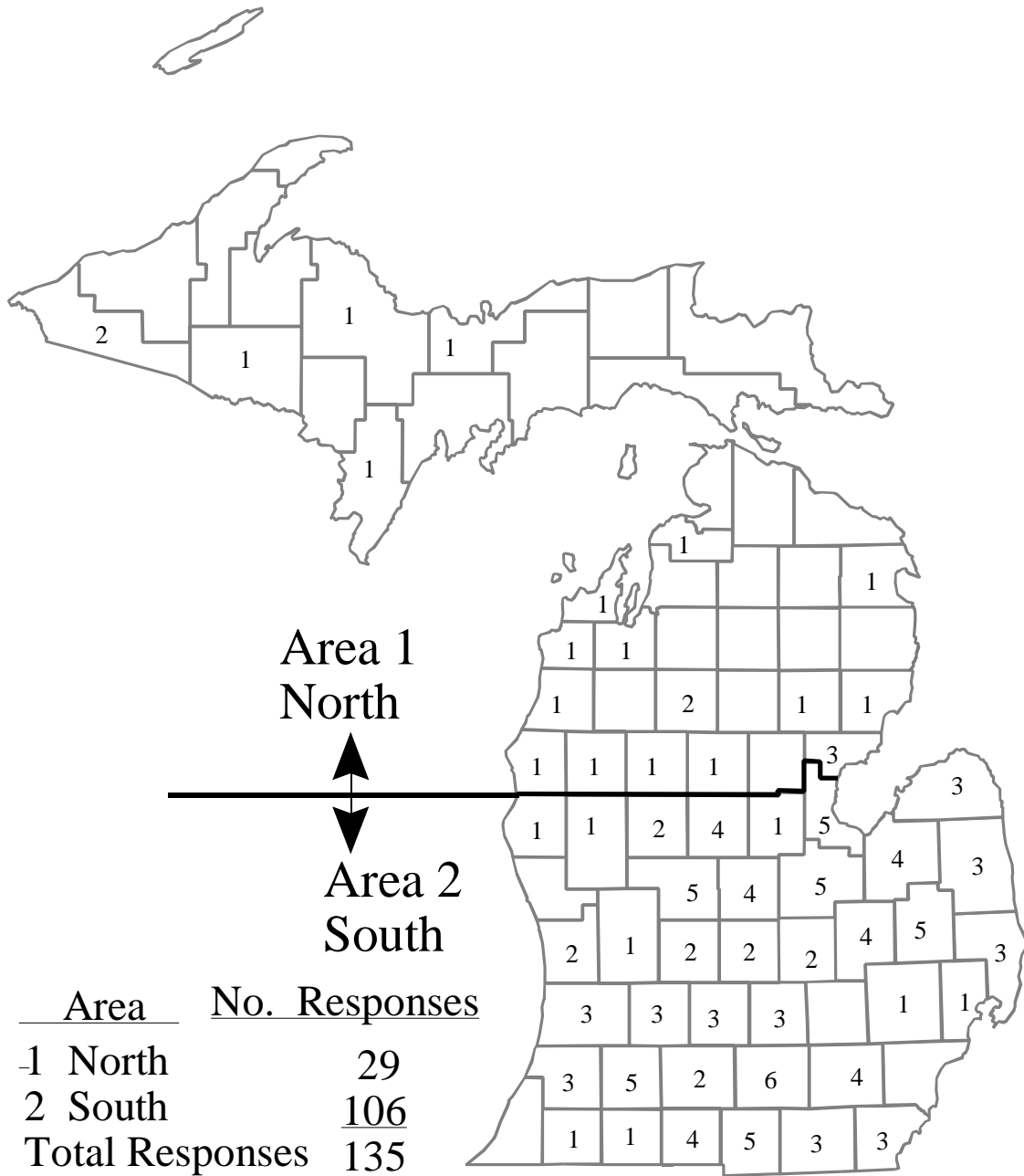
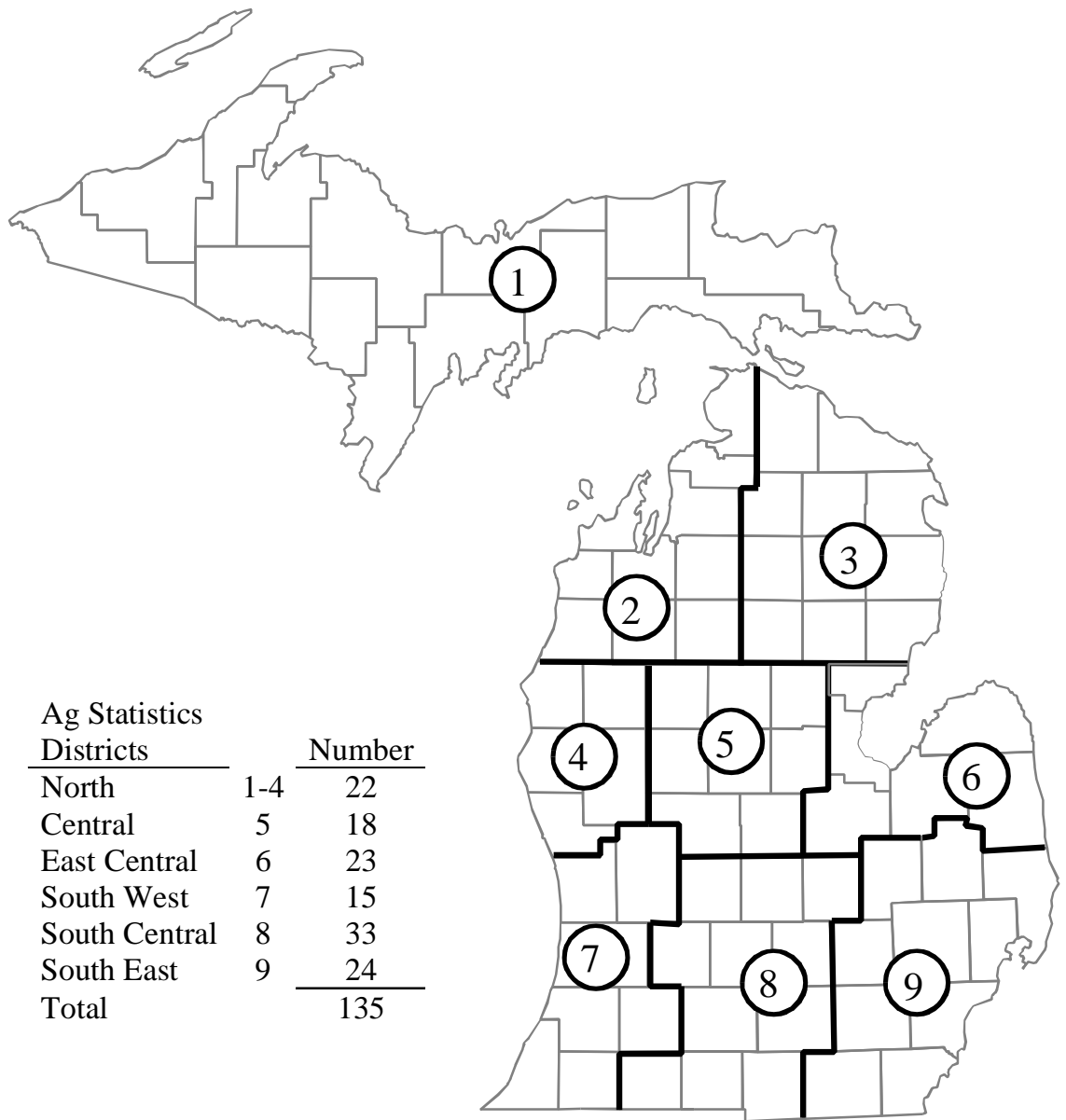


Figure 1. Farmland Value Questionnaire Responses





**Figure 2. Agricultural Statistics Districts and Number of Respondents**

## **Data Gathering**

Respondents were requested to provide for their geographic areas: the current agriculture-use value of the farmland; the change in value during the last year; the expected change in value during the next year and; the cash rental rate. In addition, information on the non agriculture-use value of farmland was requested. Estimates on farmland agriculture-use values were reported separately for tilled (non-irrigated) field crop, non tilled field crop, sugar beet, and irrigated land. Price data on non agriculture-use land values were collected for residential, commercial, and recreational development. The respondents were also asked to indicate the county or counties to which their information corresponds. In addition, an opportunity was provided for each respondent to rank the major agricultural factors influencing land values and cash rents. Similarly, a ranking was requested of the major factors influencing land values in rural areas for land that appears destined to transition to non agricultural uses. The questionnaire was mailed in May of 2002.

In order to account for potentially large differences in soil and climate characteristics, information is reported separately for different regions of the state. Results are reported for two halves of the state, the southern-lower peninsula and the upper and northern-lower peninsula, which are split at a line running from Oceana across to Bay county as shown in Figure 1. Results are also reported for the nine "Agricultural Statistics Districts" across the state. The results for Districts 1 through 4 are combined because of lower number of responses in that region. In addition, results are only reported for each question when at least five responses were received for a reporting area. The paucity of data responses in some geographic areas results in some unreported data.

Efforts were made to report only the value of land in its agricultural production use. However, it is difficult to separate out non agricultural influences on land prices and so the agriculture-use values will certainly display some non agricultural-use impacts. The magnitude of these influences will vary across local regions in state. The influence of non-agricultural factors on farmland values are addressed in more detail later in the report.

## Agricultural-Use Farmland Values

### *Average Farmland Values*

Average farmland values are reported in Table 1 for different regions in the state. In the southern lower peninsula, the average value of tilled field crop land was \$2,145 per acre while non tilled field crop land averaged \$1,933 per acre. In the upper and northern-lower peninsula field crop land averaged \$1,853 and \$1,543 per acre for tilled and non tilled, respectively.

**Table 1. Michigan Agricultural Land Values**

| Region                             | Land Use          |                       |            |           |
|------------------------------------|-------------------|-----------------------|------------|-----------|
|                                    | Field Crop Tilled | Field Crop Non tilled | Sugar Beet | Irrigated |
| Michigan                           | \$2,110           | \$1,858               | \$2,128    | \$2,333   |
| Southern Lower Peninsula           | 2,145             | 1,933                 | 2,162      | 2,337     |
| Upper and Northern Lower Peninsula | 1,853             | 1,543                 | n/a        | n/a       |
| District 1-4                       | 2,025             | 1,704                 | n/a        | n/a       |
| District 5                         | 1,792             | 1,477                 | 2,071      | 2,000     |
| District 6                         | 1,862             | 1,489                 | 2,106      | n/a       |
| District 7                         | 2,067             | 2,304                 | n/a        | n/a       |
| District 8                         | 1,912             | 1,712                 | n/a        | 2,350     |
| District 9                         | 2,930             | 2,675                 | n/a        | n/a       |

Note: Results were only reported when a minimum of five responses were received.

As expected, agricultural statistics districts 1-4 which contain the Upper Peninsula (1), Northwest (2), Northeast (3), and West Central (4) Districts have lower average farmland values than the remaining districts with field crop farmland averaging \$2,025 and \$1,704 per acre for tilled and non tilled land. The Southeast District (9) had the highest average values for field crop land at \$2,930 and \$2,675 per acre for tilled and non tilled land, respectively. Values in this area appear to be the highest in the state and probably reflect the

influence of non-agricultural demands. The Southwest (7) District also showed strong land values with non tiled field-crop land averaging \$2,304 per acre. The Central (5), East Central (6), and South Central (8) Districts had somewhat similar average values for field crop land ranging from \$1,489 per acre for non tiled land in the East Central District to \$1,912 per acre for tiled land in South Central District.

Land that produces higher valued crops can support higher cost per acre of land. Sugar beets are one commodity produced in Michigan that tends to generate both a higher gross and higher net income per acre. Land that can support sugar beets in its crop rotation averaged \$2,128 per acre with the sugar beet production being concentrated in the East Central and Central Districts. Uncertainty regarding availability of capacity to process sugar beets was in question during 2001 and resolved, for the time being, for the 2002 crop. Additional uncertainty associated with agricultural policy involving sugar beets was also addressed in the new farm bill. This reduction of uncertainty may have contributed to the 11.7% increase in 2002 price of Michigan sugar beet land. Irrigated land value averaged \$2,333 per acre in the state. Most responses on irrigated land values came from central and south central Michigan. Irrigated land in the South Central Districts, typically used for seed corn production and some speciality crops, averaged \$2,350 per acre.

#### *Change in Farmland Values*

The change in Michigan farmland values during the last 12 months and the expected change during the next 12 months is shown in Table 2. In the southern-lower peninsula field crop land values increased around 4.2% for tiled land and 2.9% for non tiled land during the year. In the upper peninsula and northern-lower peninsula land values for field crops increased 8.3% for tiled land, and around 5.8% for non tiled land. The East Central District 6 reported the lowest annual growth rate in price for field crop land averaging 1.5% for tiled land and 1.9% for untiled land. The largest percentage increase in land values occurred in Districts 1-4 where sales price for tiled field crop land increased 12.7% and untiled field crop land increased 7.5% in value. This marks the fourth consecutive year that the area composed of the Upper Peninsula and the Northern

Lower Peninsula has had the higher annual rate of increase in land values. With these continued relatively higher rates of price increases in the North country, their land prices are becoming closer to the land values in Southern Michigan.

**Table 2. Change in Michigan Farmland Value**

| Region                             | Type of Land Use |                    |                    |                    |            |                    |           |                    |
|------------------------------------|------------------|--------------------|--------------------|--------------------|------------|--------------------|-----------|--------------------|
|                                    | Field Crop Tiled |                    | Field Crop Untiled |                    | Sugar Beet |                    | Irrigated |                    |
|                                    | Last Year        | Expected Next Year | Last Year          | Expected Next Year | Last Year  | Expected Next Year | Last Year | Expected Next Year |
| Michigan                           | 4.7%             | 3.2                | 4.2                | 4.1                | 1.9        | 4.5                | 6.3       | 3.8                |
| Southern Lower Peninsula           | 4.2              | 2.9                | 3.9                | 3.3                | 2.3        | 5.3                | 6.5       | 3.9                |
| Upper and Northern Lower Peninsula | 8.3              | 5.9                | 5.8                | 7.9                | n/a        | n/a                | n/a       | n/a                |
| District 1-4                       | 12.7             | 5.3                | 7.5                | 8.4                | n/a        | n/a                | n/a       | n/a                |
| District 5                         | 5.6              | 3.3                | 4.3                | 4.3                | 4.3        | 2.5                | 7.8       | 5.8                |
| District 6                         | 1.5              | 1.6                | 1.9                | 1.4                | 0.5        | 6.4                | n/a       | n/a                |
| District 7                         | 3.7              | 8.0                | 5.2                | 7.6                | n/a        | n/a                | n/a       | n/a                |
| District 8                         | 4.4              | 2.3                | 3.6                | 2.3                | n/a        | n/a                | 7.9       | 3.5                |
| District 9                         | 6.2              | 4.2                | 5.1                | 4.8                | n/a        | n/a                | n/a       | n/a                |

Note: Results were only reported when a minimum of five responses were received.

Field crop tiled land values are expected to rise just over 3% during the next year. For untiled land, the percentage land value change is again expected to increase more in the Upper and Northern-lower peninsula than in the Southern Lower Peninsula. The weakest gains are expected in the East Central District 6. The strongest gains are expected in district's 1-4 where field crop land is expected to increase in value by about 8% during the upcoming year.

Sugar beet land values increased by almost 2% in 2001 and are expected to increase 4.5% during the upcoming year. Irrigated land values increased nearly 6.3% in value and are expected to rise 3.8% during the upcoming year.

### **Farmland Leasing**

Leasing or renting of land provides an alternative method for farmers to gain control of land. Table 3 reports on land leasing activity in Michigan and indicates that approximately half (53%) of the crop acres in Michigan are controlled by lease. Cash leasing is the most predominant form of land rental with 78% of leased land controlled by cash rental arrangements.

**Table 3. Characteristics of Leased Farmland in Michigan**

| <b>Region</b>                      | <b>Crop Acres Leased</b> | <b>Leased Land Under Cash Lease</b> |
|------------------------------------|--------------------------|-------------------------------------|
| Michigan                           | 53%                      | 78%                                 |
| Southern Lower Peninsula           | 55                       | 78                                  |
| Upper and Northern Lower Peninsula | 42                       | 78                                  |
| Districts 1-4                      | 35                       | 87                                  |
| District 5                         | 55                       | 72                                  |
| District 6                         | 53                       | 74                                  |
| District 7                         | 55                       | 83                                  |
| District 8                         | 53                       | 73                                  |
| District 9                         | 62                       | 83                                  |

### *Crop Acres Leased*

In the southern Lower Peninsula, an estimated 55% of crop acres appear to be controlled by leases; while 42% of the crop land in the upper and northern-lower peninsula is leased. The highest amount of leasing occurs in the Southeast District where 62% of the crop land is leased. Cash rent is the predominant leasing

arrangement throughout Michigan. This preference is consistently expressed in every reporting district in Michigan.

### *Cash Rent Levels*

Cash rental arrangements provide the opportunity for a land owner to receive a fixed payment from a tenant who gains control of the land in exchange for his/her payment. Cash rental amounts and their relationship to land values are shown in Table 4. Cash rents in the southern-lower peninsula averaged \$84 and \$62 per acre for tilled and non tilled field crop land, respectively. In the upper and northern-lower peninsula, tilled field crop land rented for an average of \$71 per acre; while non tilled land rented for \$34 per acre. The highest rent levels for field crop land were found in the East Central District 6 where tilled land commanded an average cash rent of \$97 per acre. Sugar beet land in Michigan rented for an average of \$121 per acre and irrigated land rented for \$128 per acre. The cash rent values for tilled field crop land for the state were reported steady, with no increase. Cash rental rates were up slightly for both irrigated and sugar beet acres, while rental rates for non tilled land were steady to slightly lower.

The value-to-rent ratios presented in Table 4 were calculated by dividing the land value reported by each respondent by the corresponding cash rent value reported by the same respondent. The value-to-rent ratio for tilled field crops was 28 in the southern-lower peninsula and 28 in the upper and northern-lower peninsula. Sugar beet land had value-to-rent ratios of 18; while irrigated land values were 19 times cash rent levels. These value-to-rent ratios have increased over past years indicating that land prices have increased relatively more than have cash rents. The highest value-to-rent ratios appear to be in areas where land values have drastically increased, primarily in the northern part of Michigan. It is hypothesized that those high value-to-rent ratios occur most often when ownership of land transitions to a non-farmer. Although the land may continue to be farmed during these transition years, the operating farmer will bid a rental amount based on the agricultural value of the land, not its non-agricultural investment value.

**Table 4. Average Cash Rent and Value Multipliers for Michigan Agricultural Use Land**

| Region                             | Type of Land Use |                |                      |                |            |                |           |                |
|------------------------------------|------------------|----------------|----------------------|----------------|------------|----------------|-----------|----------------|
|                                    | Field Crop Tiled |                | Field Crop Non tiled |                | Sugar Beet |                | Irrigated |                |
|                                    | Rent             | Value/<br>Rent | Rent                 | Value/<br>Rent | Rent       | Value/<br>Rent | Rent      | Value/<br>Rent |
| Michigan                           | \$83             | 28             | \$57                 | 38             | \$121      | 18             | \$128     | 19             |
| Southern Lower Peninsula           | 84               | 28             | 62                   | 33             | 126        | 18             | 129       | 19             |
| Upper and Northern Lower Peninsula | 71               | 28             | 34                   | 68             | n/a        | n/a            | n/a       | n/a            |
| Districts 1-4                      | n/a              | n/a            | 23                   | 93             | n/a        | n/a            | n/a       | n/a            |
| District 5                         | 84               | 24             | 50                   | 32             | 120        | 19             | 146       | 16             |
| District 6                         | 97               | 20             | 69                   | 23             | 118        | 17             | n/a       | n/a            |
| District 7                         | 90               | 25             | 62                   | 38             | n/a        | n/a            | n/a       | n/a            |
| District 8                         | 76               | 26             | 62                   | 29             | n/a        | n/a            | 125       | 19             |
| District 9                         | 84               | 40             | 61                   | 48             | n/a        | n/a            | n/a       | n/a            |

Note: Results were only reported when a minimum of five responses were received.

The current price of land is a direct function of the future cash flows expected (or speculated) to be generated by the land. Higher expected future cash flows are "capitalized" into the price of the land today, increasing its value relative to the current year's cash flow. In other words, higher expected future cash flows translate into higher value-to-rent ratios. As speculation and expectations increase about future cash flows, the resultant value-to-rent ratio will increase; and conversely the current return on investment will decrease. The value-to-rent ratio calculation and movement is analogous to the price/earnings ratio in equity stocks and funds traded on national exchanges. Relatively high value-to-rent ratios suggest four possible situations: 1) the market actually anticipates that the cash flows will grow at a faster rate than for alternative land parcels located in other areas and/or used for lower valued purposes; 2) the land may be switched to alternative uses



with higher expected cash flows in the future; 3) non farm uses of the land in the future may provide higher cash flows than those expected from current land use; or 4) the market views the future cash flows to be less risky than the cash flows from alternative land locations and is therefore willing to pay a higher price. When agriculture land is being transitioned out of agriculture and/or its ownership is changed, land values may increase but agricultural rental values may not increase proportionately as long as the acreage is used for agricultural purposes. It can be noted that the highest cash rents per acre in Michigan tend to be associated with higher projected incomes per acre; e.g. from irrigated acres producing higher valued crops and/or higher yields; but also tend to have the lowest value-to-rent ratios.

### **Non Agriculture-Use Values of Farmland**

The value of farmland for development purpose is summarized in Table 5. These values, in most cases, are significantly above the agriculture-use value of the land and therefore tend to exert upward pressure on surrounding farmland values. The average value of farmland converted to residential development is \$9,885 per acre in the southern lower peninsula and \$4,026 per acre in the upper and northern-lower peninsula. The highest residential development values are found in the Southeast District where the average value is \$16,700 per acre.

The value of farmland converted to commercial use was \$27,151 in the southern-lower peninsula and \$58,350 in the upper and northern-lower peninsula. Although the average value for farmland that was converted to commercial use is approximately \$32,500 per acre for the state of Michigan, the variance in this data is quite high as indicated by a standard deviation that is slightly greater than the mean in all districts. The occasional extremely high values reported probably reflect the often recited real estate mantra of "location, location, location."

**Table 5. Non Agricultural-Use Value of Undeveloped Land in Michigan**

| Region                             | Type of Land Use |                       |              |
|------------------------------------|------------------|-----------------------|--------------|
|                                    | Residential      | Commercial/Industrial | Recreational |
| Michigan                           | \$8,713          | \$32,530              | \$3,278      |
| Southern Lower Peninsula           | 9,885            | 27,151                | 3,675        |
| Upper and Northern Lower Peninsula | 4,026            | 58,350                | 1,851        |
| Districts 1-4                      | 3,590            | 57,659                | 1,993        |
| District 5                         | 4,743            | 9,800                 | 2,431        |
| District 6                         | 5,879            | 10,188                | 2,725        |
| District 7                         | 13,143           | 29,143                | 6,950        |
| District 8                         | 7,000            | 19,738                | 3,554        |
| District 9                         | 16,700           | 47,943                | 3,704        |

Note: Results were only reported when a minimum of five responses were received.

Recreational development values for farmland were higher than to the agricultural-use value of farmland for most areas in Michigan. The recreational development value of farmland was \$3,675 per acre in the southern lower peninsula and \$1,851 per acre in the upper and northern-lower peninsula. The highest average value for recreational development land was in Southwest District 7 where land for recreational development averaged \$6,950 per acre. These reported price data on recreational values are also subject to a high variance because of the occasional extremely high value attributed to the unique amenities of a particular parcel of land.

## Major Factors Influencing Land Values and Rents in Michigan

What drives agricultural land values? Respondents were provided the opportunity to indicate their perception of the importance of some agricultural-related factors that can influence farm land values and cash rents. On a scale from one to five with one being “Not Important” and five being “Very Important”, respondents were asked to rank their perception of the importance of selected government programs, selected prices, and expansion by farmers. The actual items identified and requested for assessment are presented in question 5 of the survey instrument (See Appendix.), and the results are presented in Table 6.

**Table 6: Rating Importance of Agricultural Factors Affecting Value of Michigan Farm Land**

| Region                            | Expansion<br>by<br>Farmers | Government Programs |                 |     | Prices |       |           |      |
|-----------------------------------|----------------------------|---------------------|-----------------|-----|--------|-------|-----------|------|
|                                   |                            | CRP                 | Low<br>Interest | LDP | Fruit  | Grain | Livestock | Milk |
| Michigan                          | 3.2                        | 2.7                 | 2.9             | 3.4 | 2.0    | 3.5   | 3.2       | 3.3  |
| Southern<br>Lower                 | 3.3                        | 2.7                 | 2.9             | 3.6 | 2.0    | 3.6   | 3.1       | 3.2  |
| Upper<br>and<br>Northern<br>Lower | 2.8                        | 2.8                 | 2.5             | 2.8 | 2.3    | 3.2   | 3.7       | 3.7  |
| Districts<br>1-4                  | 2.7                        | 2.5                 | 2.5             | 2.5 | 2.8    | 3.1   | 3.7       | 3.6  |
| District 5                        | 3.5                        | 2.9                 | 2.8             | 3.3 | 1.4    | 3.2   | 2.9       | 3.3  |
| District 6                        | 3.5                        | 2.7                 | 2.8             | 3.5 | 1.2    | 3.5   | 3.2       | 3.3  |
| District 7                        | 2.9                        | 2.0                 | 2.2             | 2.9 | 2.8    | 2.9   | 2.9       | 2.8  |
| District 8                        | 3.6                        | 2.9                 | 3.0             | 3.9 | 2.0    | 3.5   | 3.0       | 3.4  |
| District 9                        | 2.8                        | 2.9                 | 3.3             | 3.7 | 2.0    | 4.2   | 3.4       | 3.3  |

Note: Response scale ranges from one to five with one designating not important and five designating very important.

CRP -- Conservation Reserve Program

LDP -- Loan Deficiency Payment

For Southern Michigan, grain prices and the loan deficiency payment (LDP) were the two highest ranking items at 3.6. Next in rank at 3.3 was “Expansion by Farmers”. The government LDP provides a floor for prices of program crops and reduces the crop price risk to farmers. Crop prices that are prevented from falling below the level provided by government programs should also provide support to land prices through the implicit subsidy effect. Higher prices enable higher incomes to drive the demand for agricultural land. Expansion by farmers suggests the strategy of lowering costs of production by exploiting the concept of economies of size; i.e. costs decrease as the fixed costs of controlling capital inputs, such as machinery, are spread over more acres. Higher incomes from higher product prices and the strategy to increase farm size will almost certainly drive higher the price for buying farm land. The direction for land prices based on agricultural factors becomes less certain when low agricultural commodity and product prices are combined with the perceived need by farmers to lower unit cost of production by producing more units from an expanded land base.

For the Upper Peninsula and the Northern part of the Lower Peninsula, the two highest agriculture related factors influencing land prices were the prices for livestock and for milk, both ranked at 3.7. Identification of these items is probably reflective of agriculture in the more northern areas of Michigan that would contain a relatively higher proportion of livestock and dairy enterprises. As income from agriculture increases with higher product prices, bid prices for land will often rise as increased profit is capitalized into land prices.

Assessing the importance of **non-agricultural** factors upon land values in rural areas for land that appears destined to transition from ownership by farmers was the final set of questions provided on the survey instrument. It is recognized that many factors not related to agriculture can influence the value of agricultural land in Michigan. This final question was an attempt to quantify the relative importance upon rural land values of some of the amenities provided by land. Table 7 summarizes the **non agricultural** factors influencing land values for land in rural areas that appears to be transitioning out of agriculture.

**Table 7: Rating Importance of Non-Agricultural Factors Affecting Value of Michigan Farm Land**

| Region                   | Fishing Access | Hunting Access | Home Sites | Interest Rate | Development | Small Farms | Woodlots | Water Resources |
|--------------------------|----------------|----------------|------------|---------------|-------------|-------------|----------|-----------------|
| Michigan                 | 2.3            | 3.9            | 4.6        | 3.8           | 2.4         | 3.8         | 3.1      | 3.4             |
| Southern Lower           | 2.3            | 3.7            | 4.7        | 3.8           | 2.6         | 4.0         | 3.0      | 3.4             |
| Upper and Northern Lower | 2.4            | 4.4            | 4.2        | 3.7           | 1.8         | 3.3         | 3.2      | 3.4             |
| Districts 1-4            | 2.6            | 4.4            | 4.5        | 3.8           | 2.0         | 3.3         | 3.5      | 3.8             |
| District 5               | 2.4            | 4.6            | 4.3        | 3.7           | 1.9         | 3.5         | 2.9      | 2.9             |
| District 6               | 2.2            | 4.1            | 4.1        | 3.6           | 1.8         | 3.5         | 2.7      | 3.1             |
| District 7               | 2.4            | 2.9            | 4.9        | 3.7           | 3.2         | 3.9         | 2.8      | 3.2             |
| District 8               | 2.6            | 4.1            | 4.7        | 3.8           | 2.7         | 4.1         | 3.2      | 3.7             |
| District 9               | 1.9            | 2.9            | 5.0        | 4.1           | 3.0         | 4.4         | 3.0      | 3.5             |

Note: Response scale ranges from one to five with one designations not important and five designations very important.

CRP -- Conservation Reserve Program

LDP -- Loan Deficiency Payment

The most important **non agricultural** factor influencing Michigan land values was the demand for home building sites. For the Southern Lower Peninsula, home building sites received an importance ranking of 4.7. The second most important item was the demand for “Farms/Ranchettes of 10 acres or so” which ranked 4.0. These two sources of demand are closely related and can be captured by the amenity called space. Land can provide space for building a house, space for raising a family; and space for privacy, security and R&R (rest and relaxation). These land-related amenities have been and continue to be in demand. The interest rate or cost of money was the third most important factor ranking 3.8. The low interest rates experienced in 2002 have contributed to the ability of buyers to service higher levels of debt associated with higher prices for

land. Continuation of low interest rates would continue to contribute to higher prices for land; and the converse would be true if interest rates were expected to increase.

For the Upper Peninsula and the Northern Lower Peninsula, the highest ranked **non agricultural** factor influencing land values was “Hunting Access” at 4.4. This was followed closely by “Home Building Sites” ranked 4.2. Land in Michigan’s rural areas provides space and habitat for many species of wildlife. The opportunity to hunt in pursuit of wildlife and to capture the outdoor experience is apparently highly valued by a significant portion of the Michigan population. It can be noted that the non-agricultural factor of home sites was much higher in its perceived influence upon land values than were any of the identified agricultural factors.

### **Conclusions**

Farmland values in Michigan continued to increase but at a slower rate than in previous years as presented in Table 8. Land values for field crops in the southern lower peninsula showed gains of around 4%. Sugar beet land values appeared to plateau while irrigated land values were up 6.5%. Rental rates in the southern lower peninsula averaged \$84 per acre for tilled ground and \$62 per acre for non tilled ground which is almost identical to year earlier values. Sugar beet acreage rented for \$121 per acre while irrigated land averaged \$128 per acre. Both these values were up slightly in 2002.

Land values relative to cash rents were highest in Upper and Northern Lower Peninsula and the Southeastern District. In the North Country, the value-to-rent ratios were 28 for tilled land; while the value-to-rent ratios for the Southeast District were 40 and 48 for tilled and non tilled land respectively. The value-to-rent ratios for most of the regions in the state are closer to 25. The 25 value-to-rent ratio implies a gross current return to investment of 4 percent per year. A higher value to rent ratio suggests a lower annual current return to investment. Apparently as demand drives land prices up, the new owners are willing to accept a short run cash rent return that more closely approaches an agricultural use value.

Although land prices have trended upward since 1987, land prices can and have in the past turned in a downward direction. The direction of Michigan agricultural land prices in the future remains a question.

Michigan's economy has a diversified structure led by industry with tourism and the agriculture/food industry vying closely for the number two rank in contribution to the economy. It has been noted that land in rural areas is valued not only for its agricultural productivity but for other amenities that are valued by non agricultural interests. Concern for year 2002 and beyond is whether the financial performance from agriculture can successfully pay for land at these increased valuations that are often buoyed up by non agricultural demand. But this demand can be effective only if Michigan employment levels and income rates continue to increase. The forecasting view on land values can never be clear and certain but the authors believe that modest growth in agricultural land values will be continued in the year beyond 2002.

**Table 8. Percentage Change in Land Value from 1991-2002 in the Southern-Lower Peninsula**

| Year    | Land Type                     |                      |            |           |
|---------|-------------------------------|----------------------|------------|-----------|
|         | Field Crop Tiled <sup>1</sup> | Field Crop Non tiled | Sugar Beet | Irrigated |
| 1991    | 5.0%                          | 3.0%                 | 9.0%       | -         |
| 1992    | 2.5                           | 1.6                  | 3.0        | 3.4%      |
| 1993    | 2.0                           | 1.4                  | 1.9        | 3.6       |
| 1994    | 4.6                           | 4.1                  | 4.8        | 5.4       |
| 1995    | 4.3                           | 3.3                  | 6.2        | 2.8       |
| 1996    | 8.1                           | 6.8                  | 8.4        | 7.3       |
| 1997    | 8.4                           | 8.1                  | 5.3        | 10.0      |
| 1998    | 10.2                          | 10.2                 | 5.9        | 12.7      |
| 1999    | 7.0                           | 7.5                  | 2.3        | 9.2       |
| 2000    | 8.8                           | 7.8                  | 2.3        | 7.1       |
| 2001    | 7.4                           | 6.8                  | -0.4       | 4.8       |
| 2002    | 4.2                           | 3.9                  | 2.3        | 6.5       |
| Average | 6.0                           | 5.4                  | 4.3        | 6.6       |

<sup>1</sup> Beginning with the 1998 Survey, the question on agriculture land values and cash rents referred to "Field-crop tilled and non tilled." Previously the similar categories were referred to as Corn-Soybean-Cropland – above average and below average.

## Appendix

May, 2002

FIELD(address)

Dear FIELD(salutation):

Land values are of interest to many people for many reasons. We at Michigan State University have collected this data each year for several years. If you are not familiar with this project or have not seen the results, you can visit the agricultural economics web site at [www.aec.msu.edu/agecon/aecreports](http://www.aec.msu.edu/agecon/aecreports) or contact us for more information.

Enclosed is the "Farm Land Value Questionnaire" for this year. Please respond to the questions that are applicable to your location and with which you are comfortable. We are asking for your estimates on the market value and cash rental rates for farmland used to grow agricultural field crops. Also requested are your estimates of land values and cash rental rates for producing sugar beets and for land that is irrigated.

We also ask for and appreciate your response to questions asking about values for undeveloped land that appears to be destined for non-agricultural use. An opportunity to indicate factors affecting land values and for your perceptive comments on land values is also provided. Responding to this questionnaire will require approximately ten minutes of your time.

While your participation in this survey is purely voluntary, we do value your informed opinion and would appreciate receiving your response before Memorial Day. Your response will be kept confidential and you will remain anonymous on the report of the survey findings. Enclosed is a self-addressed, stamped envelope in which you can return the survey. Thanks for your help.

If you would like to receive the summarized results of this survey, please provide your name and address on the separate response form provided in this mailing. We hope that you will find the results of interest and of use.

If you have any questions, you may call Steve Hanson at 517-353-1870 or Gerry Schwab at 517-355-2153. If you have questions concerning this survey and your rights, you may contact Ashir Kumar, Chair, University Committee on Research Involving Human Subjects (UCHRIS) at 517-355-2180.

Sincerely,

Steve Hanson  
Professor

Gerry Schwab  
Professor



**FARM LAND VALUE QUESTIONNAIRE**  
**May 2002**

Make the best estimates you can for your area. Complete only the sections applicable to your area.

Indicate which county or counties you are reporting on. \_\_\_\_\_

1. Agricultural-Use Value

| Type of Land                  | Current Average Value | Percent Change in Value<br>(Indicate + or -) |                            | Average Cash Rent |
|-------------------------------|-----------------------|--|----------------------------|-------------------|
|                               |                       | Last 12 Months                               | Expected in Next 12 Months |                   |
| A. Field Crop (non-irrigated) | \$/acre               | % change                                     | % change                   | \$/acre           |
| Tiled                         |                       |  |                            |                   |
| Untiled                       |                       |  |                            |                   |
| B. Sugar Beet (if applicable) |                       |  |                            |                   |
| C. Irrigated (if applicable)  |                       |  |                            |                   |

2. Non Agricultural-Use Value

| Undeveloped Land*        | Current Average Value<br>\$/acre | Current Range in Value |                |
|--------------------------|----------------------------------|------------------------|----------------|
|                          |                                  | High<br>\$/acre        | Low<br>\$/acre |
| A. Residential           |                                  |                        |                |
| B. Commercial/Industrial |                                  |                        |                |
| C. Recreational          |                                  |                        |                |

\* Land that may be in agricultural use but the land value is being influenced by residential, commercial or recreational development pressure.

3. What percentage of field crop acres in your area is leased? \_\_\_\_\_%

4. What percentage of the leased field crop acres is on a **cash-rent** lease? \_\_\_\_\_%

5. What are the major **agricultural** factors influencing farm land values and cash rents in your area? Indicate your assessment of the situation by circling the appropriate number on the scale below.

|                          | Not<br>Important |   | Neutral |   | Very<br>Important |
|--------------------------|------------------|---|---------|---|-------------------|
| Expansion by Farmers     | 1                | 2 | 3       | 4 | 5                 |
| Government Programs:     |                  |   |         |   |                   |
| Conservation Reserve     | 1                | 2 | 3       | 4 | 5                 |
| Low Interest Loans       | 1                | 2 | 3       | 4 | 5                 |
| Loan Deficiency Payments | 1                | 2 | 3       | 4 | 5                 |
| Prices:                  |                  |   |         |   |                   |
| Fruit                    | 1                | 2 | 3       | 4 | 5                 |
| Grain                    | 1                | 2 | 3       | 4 | 5                 |
| Livestock                | 1                | 2 | 3       | 4 | 5                 |
| Milk                     | 1                | 2 | 3       | 4 | 5                 |
| Other: (please list)     |                  |   |         |   |                   |
| _____                    | 1                | 2 | 3       | 4 | 5                 |
| _____                    | 1                | 2 | 3       | 4 | 5                 |

6. What are the major **non-agricultural** factors influencing land values in rural areas for land that appears destined to transition from ownership by farmers?

|                                   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|
| Fishing Access                    | 1 | 2 | 3 | 4 | 5 |
| Hunting Access                    | 1 | 2 | 3 | 4 | 5 |
| Home Building Sites               | 1 | 2 | 3 | 4 | 5 |
| Interest Rates for Borrowing      | 1 | 2 | 3 | 4 | 5 |
| Mall & Shopping Development       | 1 | 2 | 3 | 4 | 5 |
| Farm/Ranchettes of 10 acres or so | 1 | 2 | 3 | 4 | 5 |
| Timber and Woodlots               | 1 | 2 | 3 | 4 | 5 |
| Water for Recreation              | 1 | 2 | 3 | 4 | 5 |
| Other: (please list)              |   |   |   |   |   |
| _____                             | 1 | 2 | 3 | 4 | 5 |
| _____                             | 1 | 2 | 3 | 4 | 5 |

7. Please provide other general comments you have about land values and rents in your area.

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If you are interested in receiving a copy of the Michigan Farmland Value survey results, please provide your name, address and telephone number.

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Street: \_\_\_\_\_

Town/City: \_\_\_\_\_

Zip Code: \_\_\_\_\_

You can return this request in a separate mailing if anonymity is an issue; or if not, include it in the envelope provided in the questionnaire.