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## 2015 MICHIGAN LAND VALUES and Leasing Rates

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# 2015 MICHIGAN AGRICULTURAL LAND VALUES 

 and
## LEASING RATES

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## 2015 MICHIGAN AGRICULTURAL LAND VALUES

Michigan State University (MSU) has collected information on land values since 1991 by a mail survey. The goal of the MSU study is to provide information on the value of land based on agricultural and non-agricultural use. The survey also collects information on leasing rates and practices in the state. This report contains the results for the MSU land value survey conducted in spring of 2015.

## Survey Methods

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, wheat, dry beans and sugar beets. After accounting for overlap between the different groups, the 2015 sample consisted of 489 potential respondents. A total of 203 questionnaires were returned with useable information. In order to account for potentially large differences in soil and climate characteristics, information is reported separately for different state regions. 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 County across to Bay County as shown in Figure 1. There were 160 responses received from the southern half of the Lower Peninsula (Area 2 in Figure 1). The remaining 43 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 agricultural production in the state. Figure 1 shows the distribution of respondents by county. Figure 2 shows the total number of responses by the Agricultural Statistics District in the state. Results are also reported for the nine Agricultural Statistics Districts across the state (Figure 2). The results for Districts 1 through 4 were combined because of a low 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.

Note that some respondents were reporting for a group 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 respondents often had access to a significant amount of land appraisal, transaction, and leasing information.

The survey questionnaire was mailed in March 2015. Each potential respondent received a cover letter encouraging their participation in the study and a two-page questionnaire asking for information on farmland prices, values and rental rates. A postage paid return envelope was provided 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 following the original questionnaire. A copy of the survey questionnaire is included in the Appendix.

Respondents were asked to provide the current agricultural-use value of the farmland, change in value during the last year, expected change in value during the next year, and cash rental rate for their geographic area. In addition, information on the non-agricultural-use value of farmland was requested. Estimates on agricultural-use values for farmland were reported separately for tiled (non-irrigated) field crops, non-tiled field crops, fruit, sugar beets, and irrigated land. Price data on non-agricultural use land values were collected for residential, commercial, and recreational development. The respondents were also asked to indicate the 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.

Efforts were made to report only the value of land in agricultural production. However, it is difficult to separate out non-agricultural influences on land prices, so the agricultural-use values will contain influences from relevant non-agricultural-uses. The magnitude of these influences varies across regions. The influences of non-agricultural factors on farmland values are addressed in more detail later in the report.


Figure1. Farmland Value Survey Responses


Figure2. Agricultural Statistics Districts and Number of Respondents

## Agricultural-Use Farmland Values

## Average Farmland Values

Average agricultural farmland values are reported by region in Table 1. In the Southern Lower Peninsula, the average value of tiled field cropland was $\$ 4,979$ per acre while non-tiled field cropland averaged $\$ 3,975$ per acre. In the Upper and Northern Lower Peninsula tiled and non-tiled field crop land averaged \$2,489 and \$2,016 per acre, respectively.

Table 1 Michigan Average Agricultural Land Values, 2015

| Region | Land Type |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Field <br> Crop <br> Tiled | Field Crop <br> Non-Tiled | Sugar <br> Beet | Irrigated | Fruit <br> Trees |
|  | 4,635 | 3,566 | 7,321 | 5,920 | 9,059 |
| Michigan | 4,979 | 3,975 | 8,002 | 6,210 | 10,545 |
| Southern Lower <br> Peninsula | 2,489 | 2,016 | 3,919 | 3,200 | 6,333 |
| Upper\& Northern <br> Lower Peninsula | 2,768 | 1,901 | $\mathrm{~N} / \mathrm{A}$ | 3,122 | 6,444 |
| Districts 1-4 | 4,933 | 3,927 | 5,489 | 6,450 | N/A |
| District 5 | 5,776 | 4,289 | 9,765 | 7,485 | N/A |
| District 6 | 5,221 | 4,573 | $\mathrm{~N} / \mathrm{A}$ | 6,321 | 11,621 |
| District 7 | 4,191 | 3,478 | 4,545 | 5,480 | N/A |
| District 8 | 4,321 | 3,677 | 4,542 | 6,333 | N/A |
| District 9 | 2 |  |  |  |  |

Note: Results were only reported when a minimum of five responses were received. These cases are denoted " $\mathrm{N} / \mathrm{A}$ " in the table.

For land primarily producing field crops (e.g., grains), Agricultural Statistics Districts 6 and 7 in Southern Michigan had the highest agricultural land values. District 6 in the southwest had average values for field cropland tiled $\$ 5,776$ per acre while District 7 tile field cropland averaged $\$ 5,221$ per
acre. The Southeast (D9) and South Central (D8) Districts had lower average values for tiled cropland ranging from $\$ 4,321$ to $\$ 4,191$ per acre and values ranging from $\$ 3,677$ to $\$ 3,478$ per acre for non-tiled cropland.

Land that produces higher valued crops can support a higher investment cost. Fruit and sugar beets are commodities produced in Michigan that historically tended to generate both higher gross and net income per acre. The highest priced agricultural land in Michigan is capable of producing fruit and located in proximity to Lake Michigan. This land planted to fruit trees is highly valued not only because of its earnings potential from the harvested fruit but also because of non-agricultural demand due to its location (e.g., view and access to Lake Michigan). Land values reported for fruit tree acres averaged $\$ 9,059$ per acre. This was an increase of $\$ 543$ per acre over the 2014 Michigan Land Survey value of $\$ 8,516$ per acre. The highest value reported for fruit tree acreage in 2015 was $\$ 10,545$ per acre in the Southern Lower Peninsula. Most responses on fruit land values came from District 2, 4, and 7, North and Southwest Districts of Michigan. Fruit tree land in the North (D1-D4) averaged \$6,444 per acre and Southwest District (D7) averaged $\$ 11,621$ per acre, these acres are typically used for cherry, apple, and peach production.

Land that can support sugar beets in its crop rotation averaged $\$ 7,321$ per acre in 2015, an 11.8\% increase over the 2014 value of $\$ 6,550$. The sugar beet production is concentrated in the East Central and South East Districts. Irrigated land value in 2015 averaged $\$ 5,920$ per acre in the state, a $15.0 \%$ increase over the 2014 value. Most responses on irrigated land values came from East Central, Southwest and Southeast Michigan.

## Expected Change in Farmland Values

The expected changes during the next 12 months are displayed in Table 2. Expectations were that Michigan farmland values will decrease in value in 2016 over 2015 values. The largest expectations on changes in percentage land value were for District (D1-D4) at $-5.0 \%$ for tiled and $-3.3 \%$ for non-tiled. Field crop tiled land values in Michigan are expected to decrease by $2.8 \%$ tiled cropland and $2.3 \%$ for non-tiled cropland. The Central District (D5) is expected to decrease by $3.5 \%$ of tiled cropland and
decrease by $3.2 \%$ for non-tiled cropland. Overall, Michigan irrigated land values are expected to decrease $2.0 \%$ during the upcoming year. District (D8) irrigated land values have the largest increase in value of $5.2 \%$ over last year and the expected value to decrease $1.9 \%$ for next year. Michigan sugar beet land values increased by $1.1 \%$ in 2015 and are expected to decrease about $2.2 \%$ in 2016 .

Table 2 Expected Percentage Change in Michigan Farmland Value

|  | Land Type |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Region | Field Crop <br> Tiled | Field Crop <br> Non-tiled | Sugar <br> Beet | Irrigated | Tree <br> Fruit |
|  | -2.8 | -2.3 | -2.2 | -2.0 | -1.3 |
| Michigan | -2.6 | -2.4 | -1.9 | -1.6 | 0.0 |
| Southern Lower <br> Peninsula | -4.9 | -2.1 | -3.6 | -8.3 | -5.0 |
| Upper \& Northern <br> Lower Peninsula | -5 | -3.3 | N/A | -6.7 | -5.0 |
| District 1-4 | -3.5 | -3.2 | -2.6 | -1.7 | N/A |
| District 5 | -3.8 | -3.8 | -2.2 | -3.4 | N/A |
| District 6 | 0.2 | -1.3 | N/A | -0.1 | 0.0 |
| District 7 | -3.0 | -2.3 | -3.3 | -1.9 | N/A |
| District 8 | -3.1 | -0.2 | 0.0 | -2.5 | N/A |
| District 9 |  |  |  |  |  |

Note: Results were only reported when a minimum of five responses were received. Those categories without enough responses are denoted " $\mathrm{N} / \mathrm{A}$ " in the table.

## Farmland Leasing

Leasing or renting of land provides an alternative method for farmers to gain control of land. Beginning in 2013, the Farm Land Value Questionnaire collected information on land rental agreements based on cash rent without a bonus and cash rent with a bonus payment. Given uncertain farm commodity prices, yields and operating expenses, operators and land owners could choose to avoid fixed cash rent and put some flexibility in the cash-rent arrangements.

Table 3 displays cash rents without bonus, with bonus and percentage of land leased. In Michigan cash rent without bonus in 2015 was $\$ 122$ per acre with $73 \%$ of land leased. Cash rent of $\$ 131$
with a bonus of $\$ 48$ per acre with $16 \%$ of land leased. The higher cash rent per acre with the additional bonus were for higher valued land. Cash leasing was the predominant form of land rental while $11 \%$ of the crop acres were in some a share rental arrangement.

The Upper and Northern Lower Peninsula cash rent without bonus was $\$ 52$ per acres with $81 \%$ and only $2 \%$ of land was leased using a bonus. District (D7) cash rent without bonus was $\$ 149$ per acre with $75 \%$ of land leased and cash rent of $\$ 105$ with a bonus of $\$ 88$ per acre with only $21 \%$ of land leased. These leasing agreements with large bonuses were the Ottawa, Muskegon and Leelanau counties, influenced by high land prices and high income per acre from higher valued crops. District D6 had the highest cash rent per acre without bonus at $\$ 158$ per acre with $69 \%$ of land leased and the highest cash rent with bonus of $\$ 141$ plus the bonus of $\$ 69$ per acre with $13 \%$ of land leased.

## Crop Acres Leased

In the Southern Lower Peninsula, an estimated $89 \%$ of leased or rented field crop acres were controlled by cash leases, while $83 \%$ of the leased or rented cropland in the Upper and Northern Lower Peninsula used cash leasing. The highest amount of leasing occurred in the Southwest District (D7) where $96 \%$ of the cropland is cash leased. As with the entire state, cash rent was the predominant leasing arrangement in all reporting districts of Michigan. Farms featuring fruit production appeared to be an exception to heavy use of leasing for agricultural crops reflecting the long term investment required for production of tree fruit.

Table 3 Cost of Leased Farmland by Arrangement Type, 2015

| Region | Cash Rent <br> without <br> Bonus | Percent of <br> Land Cash <br> Rent | Cash Rent <br> with Bonus | Cash <br> Bonus | Percent of <br> Land <br> Cash Rent <br> with Bonus | Share Rent |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| \$/acre | $\%$ | $\$ /$ acre | $\$ /$ acre | $\%$ | $\%$ |  |
| Michigan | 122 | 73 | 131 | 48 | 16 | 11 |
| Southern Lower <br> Peninsula | 137 | 71 | 132 | 48 | 18 | 11 |
| Upper and <br> Northern <br> Lower Peninsula | 52 | 81 | 103 | N/A | 2 | 17 |
| Districts 1-4 | 44 | 71 | 120 | N/A | 2 | 27 |
| District 5 | 120 | 76 | 151 | 27 | 12 | 12 |
| District 6 | 158 | 69 | 141 | 69 | 13 | 18 |
| District 7 | 149 | 75 | 105 | 88 | 21 | 4 |
| District 8 | 121 | 73 | 116 | 14 | 22 | 5 |
| District 9 | 118 | 82 | 145 | 20 | 13 | 5 |

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

## Cash Rent Levels

Cash rent amounts and their relationship to land values are summarized in Table 4. Cash rents in the Southern Lower Peninsula averaged $\$ 154$ per acre for tiled cropland and $\$ 112$ for non-tiled cropland. In the Upper and Northern Lower Peninsula, tiled field cropland rented for an average of $\$ 57$ per acre and non-tiled cropland rented for an average of $\$ 43$ per acre. The highest rent levels for field cropland were found in the East Central (D6) where tiled land commanded an average cash rent of $\$ 176$ per acre. Sugar beet land in Michigan rented for an average of $\$ 179$ per acre, and irrigated cropland rented for $\$ 230$ per acre. The Michigan cash rent value for tiled field cropland of $\$ 141$ per acre for the state is a decrease of $\$ 1$ per acre from the previous year. Sugar beet cash rental per acres decreased by $\$ 29$ per acre and irrigated cropland increased by $\$ 29$ per acre from 2014.

Table 4 Average Cash Rent and Value Multipliers for Michigan Agricultural Land Use, 2015

| Region | Land Type |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Field Crop Tiled |  | Field Crop <br> Non-Tiled |  | Sugar Beet |  | Irrigated |  |
|  | $\begin{gathered} \text { Rent } \\ (\$ / \text { acre }) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Value/ } \\ \text { Rent } \\ \text { (ratio) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Rent } \\ \text { (\$/acre) } \end{gathered}$ | $\begin{gathered} \hline \text { Valuel } \\ \text { Rent } \\ (\text { ratio) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Rent } \\ (\$ / \text { acre }) \end{gathered}$ | $\begin{gathered} \text { Valuel } \\ \text { Rent } \\ \text { (ratio) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Rent } \\ (\$ / \text { acre }) \end{gathered}$ | $\begin{gathered} \text { Valuel } \\ \text { Rent } \\ (\text { ratio }) \\ \hline \end{gathered}$ |
| Michigan | 141 | 36 | 101 | 40 | 179 | 40 | 230 | 29 |
| Southern Lower Peninsula | 154 | 34 | 112 | 38 | 197 | 39 | 239 | 29 |
| Upper and <br> Northern Lower <br> Peninsula | 57 | 48 | 43 | 54 | 91 | 45 | 129 | 31 |
| District 1-4 | 61 | 49 | 48 | 49 | N/A | N/A | 118 | 35 |
| District 5 | 125 | 43 | 91 | 49 | 134 | 43 | 196 | 33 |
| District 6 | 176 | 34 | 105 | 43 | 211 | 43 | 227 | 33 |
| District 7 | 157 | 36 | 135 | 37 | N/A | N/A | 241 | 29 |
| District 8 | 141 | 31 | 113 | 33 | 210 | 23 | 269 | 23 |
| District 9 | 143 | 32 | 98 | 39 | 138 | 33 | 240 | 27 |

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

## Land Value-to-Rent Multiplier

The value-to-rent ratios were calculated by dividing the land value reported by the corresponding cash rent value reported by each respondent (Table 4). The value-to-rent ratio for tiled field crops in was 34 (i.e., land price was 34 times the rental rate) in the Southern Lower Peninsula. Southern Lower Peninsula sugar beet land had a value-to-rent ratio of 39 , while irrigated land value-to-rent ratio was 29 . In the Upper and Northern Lower Peninsula the ratio for field cropland tiled was 48. These value-to-rent ratios in Michigan changed slightly from 2014 levels. The value-to-rent ratio calculation and movement is analogous to the price/earnings ratio in equity stocks and funds traded on national exchanges. When agricultural 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. The highest cash rents per acre in Michigan tended to be associated with higher projected incomes per acre (e.g., from irrigated acres producing higher valued crops and/or higher yields) but also tended to have the lowest value-to-rent ratios.

## Non-Agricultural-Use Values of Farmland

The value of farmland for non-agricultural uses are summarized in Table 5. In most cases, these values were significantly above the agricultural-use value of the land and therefore tended to exert upward pressure on surrounding farmland values. The average value of farmland being converted to residential development was $\$ 7,611$ per acre in the Southern Lower Peninsula and $\$ 4,802$ per acre in the Upper and Northern Lower Peninsula. The highest residential development values were found in the Southwest (D7) where the average value was $\$ 11,410$ per acre.

Table 5 Non-Agricultural-Use Value of Undeveloped Land in Michigan, 2015

| Region | Land Use |  |  |
| :--- | :---: | :---: | :---: |
|  | Residential | Commercial/Industrial | Recreational |
|  | \$/acre |  |  |
| Michigan | 7,034 | 31,375 | 3,631 |
| Southern Lower <br> Peninsula | 7,611 | 31,399 | 3,587 |
| Upper and Northern <br> Lower Peninsula | 4,802 | 31,265 | 3,786 |
| Districts 1-4 | 4,940 | 52,122 | 4,707 |
| District 5 | 5,052 | 17,642 | 3,239 |
| District 6 | 6,545 | 12,818 | 3,555 |
| District 7 | 11,410 | 67,593 | 3,247 |
| District 8 | 6,397 | 15,160 | 4,477 |
| District 9 | 7,095 | 29,086 |  |

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

The value of farmland being converted to commercial use was $\$ 31,399$ per acre in the Southern Lower Peninsula and $\$ 31,265$ per acre in the Upper and Northern Lower Peninsula. The average value for farmland that was converted to commercial use was $\$ 31,375$ per acre for the state of Michigan. However, the variance behind these estimated averages was quite high.

The recreational development value of farmland averaged $\$ 3,587$ per acre in the Southern Lower Peninsula and $\$ 3,786$ per acre in the Upper and Northern Lower Peninsula. The highest average value for
recreational development land was in the North (D1-D4) where land for recreational development averaged $\$ 4,707$ per acre. These reported price data on recreational values were also skewed by a few extremely high values attributed to the unique amenities of a particular parcel of land.

## Factors Influencing Land Values and Rents in Michigan

The survey also solicited opinions about the major factors driving land values. Respondents were provided the opportunity to indicate their perception of the importance of agricultural-related factors that influenced farmland values and cash rents. Factors including farm expansion, government programs, interest rates, and prices of agricultural commodities were rated on a scale from one to five with one being "Not Important" and five being "Very Important." The mean ratings are presented in Table 6. For Southern Lower Michigan, expansion by farmers, grain prices, and milk price were the highest-ranking items at 4.3, 4.1, and 4.0, respectively. Next in order of importance were livestock price, energy prices, and agricultural commodity programs with rating scores of $3.7,2.9$, and 2.8 , respectively. Livestock prices that impact land price will vary by the predominant livestock in the reporting area. As commodity prices change, cash flow also changes which affects 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) or the need for more land to support a possible expansion of the management team associated with the expansion.

Table 6 Rating Importance of Agricultural Factors Affecting Value of Michigan Farmland, 2015

| Regions | Expansion by farmers | Government Programs |  |  | Prices |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Conser } \\ & \text { vation } \end{aligned}$ | Ag commodity | $\begin{gathered} \text { Energy/ } \\ \text { Fuel } \end{gathered}$ | Fruit | Grain | Livestock | Milk |
|  | Average Score |  |  |  |  |  |  |  |
| Michigan | 4.3 | 2.6 | 2.8 | 2.9 | 2.6 | 4.1 | 3.7 | 4.0 |
| Southern Lower | 4.4 | 2.6 | 2.7 | 2.8 | 2.6 | 4.2 | 3.8 | 4.1 |
| Upper \& North Lower | 4.2 | 2.9 | 2.9 | 3.0 | 2.4 | 3.7 | 3.4 | 3.9 |
| District 1-4 | 4.2 | 2.9 | 2.8 | 2.8 | 3.0 | 3.5 | 3.4 | 3.6 |
| District 5 | 4.7 | 2.5 | 2.6 | 3.0 | 1.9 | 4.3 | 3.7 | 4.4 |
| District 6 | 4.5 | 2.3 | 2.6 | 2.6 | 1.7 | 4.1 | 3.8 | 4.1 |
| District 7 | 4.3 | 3.0 | 3.0 | 3.0 | 3.7 | 4.1 | 3.6 | 4.0 |
| District 8 | 4.3 | 2.7 | 2.9 | 3.0 | 2.6 | 4.3 | 4.0 | 4.2 |
| District 9 | 4.3 | 2.5 | 2.7 | 2.8 | 2.4 | 4.4 | 3.8 | 3.9 |

Note: Response scale was $1=$ not important, $2=$ somewhat unimportant, $3=$ neutral, $4=$ somewhat important, 5= very important.

For the Upper and the Northern Lower Peninsula, the two highest agricultural related factors influencing land prices were expansion by farmers and milk price with a mean score of 4.2 and 3.9, respectively.

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 addressed with the final set of survey questions. Many factors not related to agriculture can influence the value of agricultural 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 of Non-Agricultural Factors Affecting Value of Michigan Farmland, 2015

| Regions | Interest <br> Rates | Home <br> Sites | Fishing <br> Access | Hunting <br> Access | Develop <br> ment | Small <br> Farms | Wood <br> Lots | Water <br> Access | Energy <br> Prices |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | 3.8 |
| 3.2 | 2.5 | 3.1 | 1.9 | 2.9 | 2.8 | 2.9 | 2.8 |  |  |  |
| Michigan | 3.9 | 3.0 | 2.4 | 3.0 | 1.9 | 2.9 | 2.8 | 2.8 | 3.2 |  |
| Southern <br> Lower <br> Peninsula |  |  |  |  |  |  |  |  |  |  |
| Upper \& N. <br> Lower <br> Peninsula | 3.6 | 3.1 | 3.0 | 3.6 | 1.8 | 3.0 | 3.1 | 3.2 | 2.8 |  |
| District 1-4 | 3.2 | 3.3 | 2.9 | 3.6 | 1.7 | 2.8 | 3.0 | 3.2 | 2.8 |  |
| District 5 | 4.3 | 3.4 | 2.7 | 3.1 | 2.2 | 2.8 | 3.1 | 2.9 | 2.8 |  |
| District 6 | 4.0 | 2.8 | 2.1 | 2.9 | 1.4 | 2.5 | 2.3 | 2.1 | 2.9 |  |
| District 7 | 3.8 | 3.6 | 2.3 | 2.7 | 2.0 | 3.4 | 2.9 | 3.1 | 2.4 |  |
| District 8 | 3.7 | 3.1 | 2.6 | 3.2 | 2.1 | 3.0 | 2.9 | 2.9 | 2.8 |  |
| District 9 | 4.1 | 3.4 | 2.2 | 3.3 | 2.0 | 3.1 | 3.0 | 2.8 | 2.8 |  |

Note: Response scale was $1=$ not important, 2=somewhat unimportant, $3=$ neutral, $4=$ somewhat important, $5=$ very important.

The most important non-agricultural factor influencing Michigan land values were interest rates. For the Southern Lower Peninsula, interest rates ranked the highest. The second most important item was energy prices. For the Upper and the Northern Lower Peninsula, the highest ranked non-agricultural factor influencing land values were interest rates, hunting access, and water access, scoring 3.6, 3.6, and 3.2 , respectively. The opportunity to hunt and water recreation, that to capture the outdoor experience is highly valued in Michigan population.

Percentage change in land value from 1991-2015 are displayed in Table 8. These percentage changes are related to Southern Lower Peninsula region reported for Field Crop Tiled, Field Crop Nontiled, Sugar Beet and Irrigated cropland.

Table 8 Southern Lower Peninsula Percentage Change in Land Value, 1991-2015,

| Year | Land Type |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Field Crop Tiled ${ }^{1}$ | Field Crop Non tiled | Sugar Beet | Irrigated |
|  | \% Change |  |  |  |
| 1992 | 0.9 | 7.1 | 5.8 | 0.0 |
| 1993 | -3.6 | 1.4 | -12.1 | -3.4 |
| 1994 | 15.0 | 8.2 | 13.5 | 21.8 |
| 1995 | -2.5 | 0.8 | 6.1 | 7.1 |
| 1996 | 13.3 | 11.7 | 8.7 | 5.5 |
| 1997 | 7.8 | 12.1 | 6.0 | -0.6 |
| 1998 | 16.9 | 18.1 | 15.5 | 21.1 |
| 1999 | 12.0 | 6.7 | -3.0 | 11.4 |
| 2000 | 8.0 | 12.9 | -1.9 | 19.1 |
| 2001 | 7.8 | 9.7 | -1.5 | -0.9 |
| 2002 | 8.2 | 14.7 | 13.5 | 3.9 |
| 2003 | 12.4 | 3.8 | 2.5 | 9.7 |
| 2004 | 7.5 | 14.1 | 9.2 | 5.9 |
| 2005 | 10.1 | 9.6 | 5.6 | 24.5 |
| 2006 | -0.4 | -1.4 | 6.2 | -5.9 |
| 2007 | 9.8 | 12.4 | 12.7 | 4.6 |
| 2008 | 16.3 | 13.0 | 17.9 | 23.3 |
| 2009 | 0.4 | -7.4 | -5.6 | -7.6 |
| 2010 | -8.2 | -4.4 | 10.5 | 4.1 |
| 2011 | 12.4 | 12.9 | 15.4 | 17.3 |
| 2012 | 9.3 | 7.4 | 10.6 | 11.2 |
| 2013 | 17.7 | 21.3 | 36.8 | 9.1 |
| 2014 | 5.1 | 3.9 | 0.0 | 0.9 |
| 2015 | -2.2 | -6.5 | 21.6 | 9.6 |
| Aver | 7.3 | 8.5 | 8.1 | 8.3 |

${ }^{1}$ Beginning with the 1998 Survey, the question on agriculture land values and cash rents referred to
"Field-crop tiled" and "Field-crop non-tiled". Previously the similar categories were referred to as Corn-Soybean-Cropland - above average and below average.

## Conclusions

Farmland values in Michigan for 2015 remained constant or decreased slightly compared to 2014: Field Crop Tiled land decreased by 3.6\%,Sugar Beet cropland increased by 11.7\%, Irrigated cropland increased by $15 \%$, and Fruit Trees land increased by $6.3 \%$.

Rental rates in the Southern Lower Peninsula averaged \$154 per acre for tiled ground and \$112 per acre for non-tiled ground, a decrease of $\$ 2$ for tiled and decrease of $\$ 10$ for non-tiled ground over 2014. In addition, sugar beet acreage rented for $\$ 179$ per acre, a decrease of $\$ 29$ per acre over 2014, while irrigated land averaged $\$ 230$ per acre, an increase of $\$ 29$ per acre from the 2014 rate.

Land values relative to cash rents were highest in Districts (D1-D4) and Central (D5). In Districts (D1-D4), the value-to-rent ratios were 49 for tiled and non-tiled land, while the value-to-rent ratios for Central (D5) were 43 for tiled land and 49 for non-tiled land. The value-to-rent ratios for most of the regions in the state are closer to 40 . A value-to-rent ratio of 40 implies a gross current return to investment of 2.5 percent per year. A higher value to rent ratio suggests a lower annual current return to investment.

Compared to 2014, Michigan farmland values and land rental rates decreased in 2015. The direction of Michigan agricultural land prices suggests some correction. Economic conditions at the end of 2015 suggest the earnings for field crops and dairy farms will be down relative to recent years. This change is consistent with patterns in bordering states.

## Appendix <br> FARM LAND VALUE QUESTIONNAIRE <br> March 2015

Report your best estimates. Complete only the sections applicable to your area. Indicate which county or counties you are reporting on: $\qquad$

1. Agricultural-Use Value

| Type of Land | Current <br> Average Value | Percent Change in Value <br> (Indicate + or -) | Average Cash <br> Rent |
| :--- | :--- | :--- | :--- |
|  |  | Last <br> 12 Months | Expected <br> in Next <br> 12 Months |
|  |  | \% change | \% change |$|$|  |
| :--- |

2. Non Agricultural-Use Value

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

*Land in agricultural use where its value is influenced by residential, commercial, recreational development pressure.

## 3. Land Rental Agreements

Land rental is often cash rent or share but it is increasingly common for agricultural producers to use a base rent plus a bonus that is either cash or a share of price or revenue. Please fill in values applicable to your area for these contract types.

|  | Rental Rates |  |  |
| :---: | :---: | :---: | :---: |
|  | Base or Average Cash Rent (\$/acre) | Cash Bonus <br> (\$ or \%acre) | Percent of Land Rented/ Leased with this contract |
| A. Cash rent without bonus |  |  |  |
| B. Cash Rent with bonus |  | (Circle One) (\$ or \%) |  |
| C. Share rent |  |  |  |

4. 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 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| A. Expansion by Farmers <br> B. Government Programs: <br> 1. Conservation Prog. | 1 | 2 | 3 | 4 | 5 |
| 2. Ag Commodity Prog. | 1 | 2 | 3 | 4 | 5 |
| 3. Energy/fuel Prog. | 1 | 2 | 3 | 4 | 5 |
| C. Product \|Prices: |  | 2 | 3 | 4 | 5 |
| 1. Grain <br> 2. Milk <br> 3. Livestock <br> 4. Fruit | 1 | 2 | 3 | 4 | 5 |
| D. Other: (please list) | 1 | 2 | 3 | 4 | 5 |
| 2 | 1 | 2 | 3 | 4 | 5 |

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

|  | Not <br> Important |  | Neutral |  | Very <br> Important |
| :--- | :---: | :---: | :---: | :---: | :---: |
| A. Interest Rates | 1 | 2 | 3 | 4 | 5 |
| B. Home Building Sites | 1 | 2 | 3 | 4 | 5 |
| C. Fishing Access | 1 | 2 | 3 | 4 | 5 |
| D. Hunting Access | 1 | 2 | 3 | 4 | 5 |
| E. Mall \& Shopping Develop. 1 | 2 | 3 | 4 | 5 |  |
| F. Ranchettes (10 ac or so) | 1 | 2 | 3 | 4 | 5 |
| G. Timber and Woodlots | 1 | 2 | 3 | 4 | 5 |
| H. Water for Recreation | 1 | 2 | 3 | 4 | 5 |
| J. Energy Prices (nat. gas or wind) 1 | 2 | 3 | 4 | 5 |  |
| I. Other: (please list) |  |  |  |  |  |

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