

**Michigan State University Department of  
Agricultural, Food, and Resource Economics**

**2021 Michigan Agricultural Land Values and Leasing Rates**

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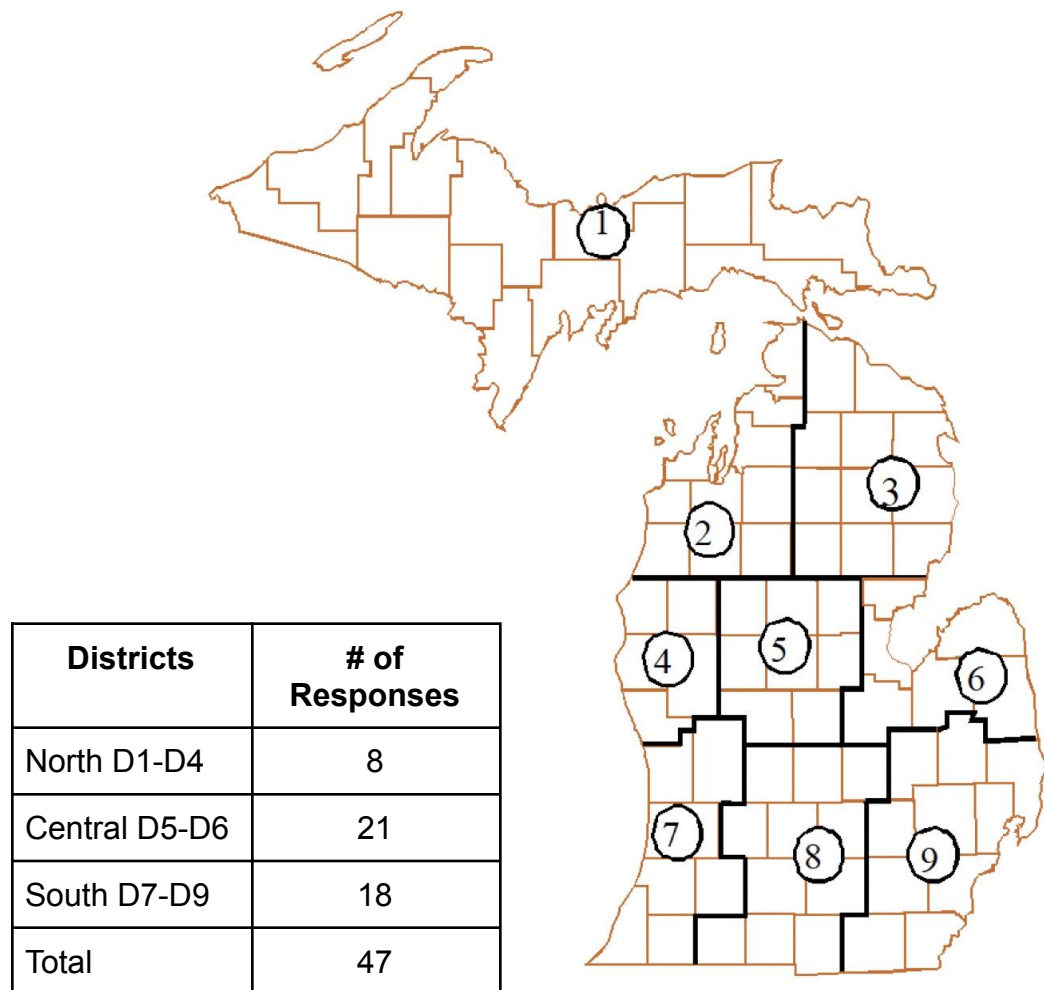
Michigan State University (MSU) has collected information on land values since 1991 using a mail survey of appraisers, lenders and others involved in Michigan agriculture. The goal of the MSU study is to provide information on the value of land based on agricultural and nonagricultural use. The survey also collects information on land leasing and rental rates. This report contains the results for the MSU land value survey conducted in the summer and fall of 2021. Results reveal that average land prices and rental rates for many categories of agricultural land have increased from 2019. We compare the results of the survey to a large database of observed transactions of agricultural land and generally find similar values between survey responses and observed transactions.

Survey responses were collected through two channels: a mailed survey and an online survey. In June, the survey was mailed to 490 potential respondents. Contact information was obtained from membership lists 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. An online version of the survey was made available in October and distributed through MSU Extension and Michigan Farm News.

The mailed survey generated a total of 25 responses, while the identical online survey generated additional 22 responses. Given the relatively low response rate, we obtained transaction data on Michigan agricultural land sales for the period 2020-2021. This data was purchased from AcreValue and includes all public sales of agricultural land in Michigan for parcels larger than 25 acres. We analyze this data and largely confirm the primary takeaways of the survey analysis.

### ***Survey Results***

The survey received 47 responses from stakeholders geographically dispersed across the state. Figure 1 shows the number of responses from each of three broad regions of Michigan. Districts 1 through 4, 5 and 6, and 7 through 9, were aggregated for the purpose of reporting. This is necessary as some districts received very few responses.



**Figure 1: Map of Agricultural Districts**

Table 1 shows average land values for various crops for each of the nine agricultural districts. We find the highest land values for field crops in the southwest region followed by the “Thumb” part of the state. The premium for tilled land-- a key driver of land value in field crops-- varies considerably across regions, ranging from about \$700/acre in the northern portion of the state to over \$1,500/acre in the central portion. The premium for irrigation was around \$1,100/acre across the state when compared to tilled field cropland.

**Table 1. Michigan Average Agricultural Land Values, 2021**

Region	Land Type			
	Field Crop Tiled	Field Crop Non-tiled	Irrigated	Sugar Beet
	\$/acre			
Michigan	5,218	3,809	6,333	6,550
District 1-4	3,233	2,567	NA	NA
District 5-6	5,223	3,665	6,250	6,550
District 7-9	5,669	4,238	6,541	NA

Note: Results were only reported when a minimum of three responses were received. Results with less than three cases are denoted “NA” in the table.

Table 2 displays the average reported share of leased land that is subject to various leasing agreements. Across Michigan, cash rent without a bonus is the predominant agreement form. Table 3 provides average rents across the state. Statewide, average reported cash rents is \$140/acre, with values ranging from \$97/acre in the northern region to \$159/acre in the southern region (districts 7-9).

**Table 2. Types of lease agreements used**

Region	Cash Rent	Cash Rent with Bonus	Share Rent
	%	%	%
Michigan	81.2	7.2	11.6
District 1-4	100.0	0.0	0.0
District 5-6	77.1	10.8	12.1
District 7-9	80.9	4.6	14.4

**Table 3. Cost of leased agricultural land by arrangement type**

Region	Cash Rent without Bonus	Cash Rent with Bonus	Cash Bonus
	\$/acre	\$/acre	\$/acre
Michigan	140	141	42
District 1-4	97	NA	NA
District 5-6	142	156	48
District 7-9	159	127	NA

Note: Results were only reported when a minimum of three responses were received. Results with less than three cases are denoted “NA” in the table.

The survey asked respondents to report on the land value premium for land that is certified organic, transitional, or enrolled in the Michigan Agriculture Environmental Assurance Program (MAEAP). All of these certifications require practices that are typically associated with improved soil health, such as cover cropping, limited tilling, and crop rotation. Respondents were asked to report a “typical” premium value, as well as a “high” and “low” value. Table 4 shows median response values for the typical, high, and low premiums of each of these programs. The median is used (rather than the mean) as some responses reported unrealistically high outlier premium values.

While typical premium values of certified organic farmland is reported to be \$25/acre, responses varied considerably. Most respondents reported no premium for transitional or MAEAP land. For the high premium category, the median response was \$175/acre for organic, \$150/acre for transitional, and \$25/acre for MAEAP.

**Table 4: Premium Values for Organic, Transitional, and MAEAP**

Program	Typical Premium	High Premium	Low Premium
	\$/acre	\$/acre	\$/acre
Organic	25	175	50
Transitional	0	150	0
MAEAP	0	25	0

Table 5 summarizes non-agricultural use value of undeveloped land in Michigan. As expected, commercial or industrial use land is valued highest at \$24,870/acre on average followed by residential use (\$8,992/acre) and recreational use (\$3,596/acre). In

general, we find highest values of non-agricultural use value in the southern and mid-east part of the state.

**Table 5: Non-agricultural Use Value of Undeveloped Land**

Region	Residential	Commercial/Industrial	Recreational
	\$/acre	\$/acre	\$/acre
Michigan	8,992	24,870	3,596
District 1-4	2,667	NA	NA
District 5-6	6,986	14,000	3,773
District 7-9	14,222	41,175	4,088

Note: Results were only reported when a minimum of three responses were received. Results with less than three cases are denoted “NA” in the table.

The survey asked respondents about their perception of the importance of various agronomic factors that affected the farmland values in Michigan. Agronomic factors included tillage, irrigation, soil, topography, and production practices and they were rated on a scale from 1 to 5, 1 being ‘not important’ and 5 being ‘very important’.

As shown below in Table 6, across the state, topography factors including terrain and continuity of parcels and yield history were considered the most important factors to affect the farmland value. At the same time, tileage, crop rotation, and soil testing were also shown to be important factors. On the other hand, no-till practices and irrigation were considered relatively less crucial factors for farmland valuation.

**Table 6: Importance of Agronomic Factors**

Region	Tile-age	Irrigation	Soil		Topography		Production Practices			
			NRCS PI	Soil Testing	Terrain	Continuity	Cover Crop	No till	Crop Rotation	Yield History
	Average Score									
Michigan	3.7	3.0	3.1	3.4	3.8	4.1	3.3	2.9	3.6	3.9
District 1-4	4.1	2.4	2.6	3.9	4.3	4.5	3.5	3.0	3.8	3.5
District 5-6	3.3	2.6	3.1	3.4	3.7	4.2	3.5	2.9	3.6	3.8
District 7-9	3.9	3.6	3.2	3.3	3.7	3.9	3.0	2.8	3.5	4.0

Note1: Response scale was 1=not important, 2=somewhat unimportant, 3=neutral, 4=somewhat important, 5=very important.

Note2: NRCS PI indicates Productivity Index provided by the Natural Resources Conservation Service.

Table 7 and Table 8 display the importance of other agricultural factors affecting farmland value. Expansion by farmers is considered to be an important factor increasing demand. Also, prices for grain and inputs are considered critical factors as they can directly affect the cash flow generated from farm operation. On the other hand, we find the price of fruits to be less important. Government programs are viewed as less significant factors, with importance ranging from 2.4 to 3.3 across the state.

**Table 7: Importance of Economic and Policy Factors**

Region	Expansion by Farmers	Government Programs			
		Conservation	Ag Commodity	Energy/Fuel	Carbon Market
	Average Score				
Michigan	4.1	2.7	3.3	3.0	2.4
District 1-4	4.1	2.7	2.8	2.8	3.0
District 5-6	4.0	2.8	3.4	2.9	2.1
District 7-9	4.3	2.6	3.4	3.2	2.4

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

**Table 8: Importance of Agricultural Prices**

Region	Prices				
	Grain	Input	Milk	Livestock	Fruit
	Average Score				
Michigan	4.1	3.9	3.3	3.5	2.1
District 1-4	4.2	4.2	3.2	4.0	2.2
District 5-6	4.3	4.0	3.5	3.7	1.6
District 7-9	4.0	3.7	3.2	3.1	2.5

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

In Table 9 we report responses on the importance of various non-agricultural factors. Among different factors, interest rates and home sites received the highest scores and other factors are generally considered less important.

**Table 9: Importance of Non-Agricultural Factors**

Region	Interest Rates	Home Sites	Fishing Access	Hunting Access	Development	Ranches	Wood Lots	Water Access	Energy Price
	Average Score								
Michigan	4.2	3.8	2.0	3.3	1.9	2.8	2.9	3.0	2.9
District 1-4	3.9	4.0	2.3	3.9	2.1	2.6	3.6	3.5	3.3
District 5-6	4.4	3.6	1.8	2.9	1.7	2.5	2.1	2.4	2.6
District 7-9	4.1	3.9	2.1	3.4	2.1	3.1	3.4	3.4	2.9

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

### ***Analysis of Land Sales Data***

We use a database of agricultural land sales from 2020 and 2021 for agricultural properties larger than 25 acres. In total, we observe 1,961 transactions. In Table 10 we report average per acre sales values for three crop types (field crops, sugarbeets, fruits) and for each of Michigan's agricultural districts. For reporting purposes, districts 1



through 4 are combined. For field crops, we find the highest average sales value for properties in District 7 in the southwestern portion of the state. Properties in this district sold for an average value of \$5,165/acre. Field crop properties in District 9 sold for an average of \$4,414/acre. Elsewhere in the state, values tended to be around \$4,000/acre, with the exception of Districts 1 through 4, where the average sales value was \$3,061. Sales of sugarbeet farms occurred only in Districts 5 and 6. In District 5 this land sold for \$4,595 and in District 6 this land sold for \$3,811/acre. Parcels with a history of fruit cultivation had the highest value. In the northern region, which includes large amounts of cherry and grape cultivation, these parcels sold for an average of \$6,972. In District 7, where land is more likely to be allocated to apples, grapes, or blueberries, these parcels sold for an average of \$4,563.

**Table 10: Average Agricultural Land Values with Sales Data, 2020-2021**

Region	Field Crop	Sugarbeets	Fruits
	\$/acre		
Michigan	4,208	3,992	5,475
District 1-4	3,061	NA	6,972
District 5	3,911	4,595	NA
District 6	4,073	3,811	NA
District 7	5,165	NA	4,563
District 8	4,061	NA	NA
District 9	4,414	NA	NA

Note1: Field Crop includes corn, soybeans, dry beans, alfalfa, winter wheat, wheat, oats, rye, sorghum, and other small grains.

Note2: Fruits category includes apples, grapes, cherries, and blueberries.

Note3: The values are calculated by area weighted average of transaction price per acre.

Note4: Results were only reported when a minimum of three responses were received. "NA" represents zero cases in this table.

### ***Comparison of Michigan to other regions***

Table 11 compares average cropland value per acre between Michigan and adjacent states as published by USDA National Agricultural Statistics Service (NASS). The estimates are based on the June Area Survey which is conducted annually.

Among the different states, croplands in Illinois are valued highest to be \$7,900/acre and the difference from the cropland value in Michigan is \$3,200/acre in 2021. Average cropland value in Iowa is similar to that of Illinois followed by Ohio and Indiana whose average values happen to be the same at \$6,800/acre in 2021. Michigan land values increased at a slower pace than in other states.

**Table 11: State-level Cropland Average Value per Acre (from USDA)**

State	2017	2018	2019	2020	2021	Change 2020-2021
	\$/acre	\$/acre	\$/acre	\$/acre	\$/acre	percent
Michigan	4,580	4,510	4,500	4,480	4,700	4.9
Wisconsin	4,870	4,740	4,850	4,770	5,280	10.7
Illinois	7,210	7,280	7,300	7,300	7,900	8.2
Indiana	6,300	6,210	6,210	6,210	6,800	9.5
Ohio	6,150	6,320	6,400	6,460	6,800	5.3
US	3,030	3,100	3,160	3,160	3,380	7.0

Note: The value of land used to grow field crops, vegetables, or land harvested for hay.

Source: USDA. National Agricultural Statistics Service. August 2021.

[https://www.nass.usda.gov/Publications/Todays\\_Reports/reports/land0821.pdf](https://www.nass.usda.gov/Publications/Todays_Reports/reports/land0821.pdf)

Table 12 shows average pasture value per acre in Michigan and nearby states. In general, the average value of pasture in these states stayed almost flat from 2017 to 2020. In the case of pasture in Michigan, the value only ranged from \$2,590/acre to \$2,620/acre. In 2021, however, we could see an increase in the value of pasture in these states where the increase in Wisconsin was highest at 12% followed by Illinois and Michigan. The differences in pasture value is not as noticeable as those in cropland value. The value of pasture is highest in Ohio in 2021 followed by Illinois and Michigan.

**Table 12: State-level Pasture Average Value per Acre (from USDA)**

State	2017	2018	2019	2020	2021	Change 2020-2021
	\$/acre	\$/acre	\$/acre	\$/acre	\$/acre	percent
Michigan	2,620	2,600	2,590	2,600	2,740	5.4
Wisconsin	2,200	2,260	2,310	2,250	2,520	12.0
Illinois	3,240	3,200	3,170	3,200	3,400	6.3
Indiana	2,430	2,430	2,450	2,400	2,490	3.8
Ohio	3,240	3,370	3,350	3,370	3,440	2.1
US	1,330	1,370	1,400	1,400	1,480	5.7

Source: USDA. National Agricultural Statistics Service. August 2021.

[https://www.nass.usda.gov/Publications/Todays\\_Reports/reports/land0821.pdf](https://www.nass.usda.gov/Publications/Todays_Reports/reports/land0821.pdf).