



Agricultural Economics Report 547

FARMLAND VALUES IN MICHIGAN

By

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Land is the primary asset held in the agricultural sector. The value of farmland is an important component of the balance sheet for individual farm businesses and the farm sector in general. Because of its immobility and durability, land is often used to provide security for many mortgage and operating loans to participants in the agricultural sector. Thus borrowers and lenders are interested in the value of the land upon which all or a portion of a loan is being based. Land values and expected changes in land values are also a key element in determining opportunity costs of non farmland investments, i.e., should a farmer expand by buying more land, increasing the size of the dairy herd, investing in a mutual fund, etc. In addition, land values are a key indicator of the economic strength of the agricultural economy.

There currently exist three major sources of land values in Michigan: the USDA-ERS estimate of the value farmland and service buildings; and the Federal Reserve Bank of Chicago district farmland survey; and the state equalized value (SEV) used for property tax purposes. While the USDA and Federal Reserve Bank studies provide useful information, they both report aggregate estimates of average land values across all areas and land types in the state. This aggregate data may be useful as a general barometer of land values, but in many cases a more micro measure of land values would produce more useful information. For example, farmers and bankers in the Michigan thumb region may be more interested in the value of sugar beet land than in a state average value of farmland which includes a variety of land types suitable to produce many different kinds of commodities. The SEV is set by county assessors at 50 percent of the estimated market value of land using comparative sales studies conducted annually. This data source is useful in determining representative land values but is somewhat limited by the historical sales perspective upon which it is based as well as the heterogeneous nature of land.

This study is an initial attempt to provide information on land values based on the production capabilities of the land. Our hope is that interest in this type of information will be

sufficient to allow future studies to be improved and expanded to provide more detailed and higher quality data on land values in Michigan. The remainder of the paper is organized as follows: first, the survey method and questionnaire as discussed; then the results of the survey are presented; finally, conclusions are drawn and future research objectives are discussed.

Survey Method

The survey sample did not explicitly include participants in land transfers, i.e., we did not attempt to sample buyers and sellers of land. The intent of this initial effort was to sample agents with the best access to market information on land values. The sample consisted of members the Farm Managers and Rural Appraisers Association, banker participants in the annual Michigan Farm Credit Conference, and agricultural lenders from all Michigan banks with over 5 million dollars in agriculture related loans. After accounting for any overlap between the three groups, the total sample consisted of 386 agents: 192 bankers from the Farm Credit Conference; 130 Farm Managers and Rural Appraisers; 43 who fell into both the Credit Conference and Appraiser groups; and 21 additional agricultural lenders from banks with over 5 million dollars in agricultural loans. A total of 102 questionnaires were returned, 99 of which had land value information reported. There were 7 questionnaires returned with incorrect addresses listed. There were no follow up mailings or contact with the sampled agents. Thus overall response rate of usable questionnaires (excluding the incorrectly addressed questionnaires) was about 26 percent. This is a typical response rate for this type of survey. It should be noted that some respondents may have been reporting as a pool of individuals who received surveys such as a farm credit service branch office or 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 and transaction information.

The sampled agents each received a cover letter, encouraging their participation in the study, and a two page questionnaire asking for land value information, comments on land values and suggestions for improving the survey questionnaire. Respondents were promised a summary of the results of the survey. Copies of the cover letter and questionnaire used in the survey are included in Appendix 1.

Information requested on the questionnaire included: the current average value of land; the current range in value; the percent change in value over the last year; the percent change in value expected over the next year; and the percent change in the supply of land on the market during the last year. The questionnaire requested the information be reported separately for higher quality corn-soybean-hay (C-SB-H) land, lower quality C-SB-H land, and sugar beet land as appropriate for each respondent's area. Five year average historical yields for corn, soybeans, and hay were provided on the questionnaire to help respondents distinguish between higher and lower quality land. The respondents were asked to indicate the county or counties to which their information corresponds. In addition, space was provided for general comments on land values in Michigan as well as suggestions regarding the improvement of the questionnaire. The questionnaires were mailed in mid January 1991 and asked for information corresponding to January 1991.

Results of the Survey

The majority of the survey responses were from respondents reporting information for land located in the southern half of the lower peninsula. One single questionnaire reported land values for the Upper Peninsula but was removed from the data set due to lack of other observations. Table 1 summarizes the responses regarding the average, high, and low prices for the three types of land. The higher quality C-SB-H land had an average price of \$975 per acre

TABLE 1. State Average, High, and Low Prices for C-SB-H and Sugar Beet Land

	<u>State Average</u>	<u>Standard Deviation of State Average</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Number of Respondents</u>
<u>Higher Quality C-SB-H</u>					
Average Price	\$975	\$326	\$500	\$ 1800	88
High Price	1164	398	525	2200	89
Low Price	771	257	310	1450	89
<u>Lower Quality C-SB-H</u>					
Average Price	618	180	250	1000	87
High Price	753	245	200	1500	87
Low Price	485	150	200	900	87
<u>Sugar Beet</u>					
Average Price	1362	349	800	2000	28
High Price	1654	430	1000	2500	27
Low Price	1143	325	600	1800	27

with range in average price from \$500 to \$1800 per acre. Lower quality C-SB-H land had an average value across the state of \$618 per acre, a little over \$350 below that reported for the higher quality land. The lower quality land ranged in value from a low of \$250 per acre to a high of \$1000 per acre. The state average value of land used to produce sugar beets was \$1362 per acre, ranging from \$800 to \$2000 per acre. Standard deviations of the responses are also reported to give an indication on the variability of the responses, i.e., about 95 percent of the responses will fall within two standard deviations either side of the average value.

The high value of land in the state averaged \$1164 per acre for higher quality C-SB-H land, \$753 for lower quality C-SB-H land, and \$1654 per acre for sugar beet land. The low value of land averaged \$771, \$485, and \$1143 per acre for higher quality C-SB-H, lower quality C-SB-H, and sugar beet land respectively. The lowest prices reported were \$310 per acre for higher quality C-SB-H land, \$200 per acre for lower quality C-SB-H land and \$600 per acre for sugar beet land. The highest land values reported were \$2200 per acre for higher quality C-SB-H land, \$1500 per acre for lower quality C-SB-H land and \$2500 per acre for sugar beet land.

Table 2 reports the historical and expected future changes in land values by type of land. The higher quality C-SB-H land increased in value by an average of 5 percent over the last year, while the below average land increased in value by only 3 percent. Sugar beet land showed strong gains, with an average increase in value of 9 percent. Both the above and below average C-SB-H land values are expected to rise about 1 percent during the next year. Sugar beet land on the other hand is expected to increase 4 percent during the upcoming 12 months.

Table 3 contains the reported percentage change in the supply of land during the previous year by type of land. The amount of higher quality C-SB-H land on the market increased by an average of 3 percent during the year, while the supply of lower quality land increased by 6 percent. Sugar beet land, on the other hand, saw an average decrease in the supply of land of about 2 percent during the year. Land supply and land prices tend to be

TABLE 2. Historic and Expected State Average Percentage Change in Land Values

	<u>State Average Percentage Change in Value</u>	<u>Standard Deviation of Percentage Change</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Number of Respondents</u>
<u>Previous 12 Months</u>					
Higher quality C-SB-H	5	6	-20	15	75
Lower quality C-SB-H	3	4	-10	15	58
Sugar Beet	9	8	-19	25	27
<u>Expected Next 12 Months</u>					
Higher quality C-SB-H	1	4	-10	10	60
Lower quality C-SB-H	1	3	-12	5	53
Sugar Beet	4	5	-10	10	18

TABLE 3. State Average Percentage Change in The Supply of Land

	<u>State Average Percentage Change in Land Supply</u>	<u>Standard Deviation of Percentage Change</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Number of Respondents</u>
<u>Previous 12 Months</u>					
Higher quality C-SB-H	3	12	-30	50	46
Lower quality C-SB-H	6	10	-10	50	46
Sugar Beet	-2	14	-50	15	14

inversely related and thus the tightening of the supply of sugar beet land may help explain stronger outlook for sugar beet prices relative to C-SB-H prices.

The questionnaire also asked respondents to comment on land values in their area and Michigan and make suggestions on improving the questionnaire. Appendix 2 contains a partial list of the comments made by respondents. A few common themes seem to exist in the comments and suggestions: high quality land sells easily while low quality land is difficult to move; the demand for agricultural land and land values have been relatively stable; urban and recreational factors strongly impact the value of agricultural land in some areas; the diversity of land and soil types makes it difficult to determine average values for an area; irrigation has a significant impact on land values; and most of the land sales are for expansion of existing operations.

Conclusions

A land value survey was conducted with the intent of beginning to compile a high quality set of land value information for the state of Michigan. Farm Managers and Rural Appraisers and Agricultural Bankers were surveyed about land value information for corn-soybean-hay and sugar beet land in Michigan. A variety of price information was collected and reported. The state average values for higher quality and lower quality corn-soybean-hay land in January 1991 were found to be \$975 and \$618 per acre respectively. The state average value of sugar beet land was estimated to be \$1362 per acre. Corn-soybean-hay land is expected to increase in value by about 1 percent during the next year, while sugar beet land is expected to rise by about 4 percent.

While the data reported here has some advantages over existing data available on land prices, there is clearly large room for further improvement. This was the initial attempt at the survey. Future goals are to improve and expand the sample size to allow reporting land values

for different regions in the state. Additional land types may also be added as a part of future surveys. In addition, using experience gained in the first survey and the suggestions and comments from respondents, attempts will be made to improve the questionnaire to allow more accurate information on land values to be compiled.

APPENDIX 1

Cover Letter for Survey

Survey Questionnaire

DEPARTMENT OF AGRICULTURAL ECONOMICS
AGRICULTURE HALL

EAST LANSING · MICHIGAN · 48824-1039

January, 1991

Dear Agriculture Appraiser or Lender:

Enclosed is a land value survey for Michigan farmland. Land values are an important indicator of the economic strength of the economy and there is currently no adequate source of farmland value information for Michigan. To help provide this information, we are asking you to take a few minutes and give us your estimates on the value of farmland which is used to grow corn, soybeans, hay, and/or sugarbeets in your area. This is our first attempt at the survey and we welcome any suggestions to improve the survey questionnaire. We will send a survey summary to all those who respond to the questionnaire.

While your participation in the survey is purely voluntary, we do value your opinion and would appreciate a prompt response. Your participation will be strictly confidential and you will remain anonymous on the report of the survey findings. You indicate your voluntary agreement to participate by completing and returning the questionnaire. Thanks for your help. If you have any questions, please call Kelsey (517) 353-4520 or Hanson (517) 353-1870.

Sincerely,

Mike Kelsey
Professor

Steve Hanson
Assistant Professor

FARM LAND VALUE QUESTIONNAIRE
January 1991

Make the best estimates you can for your area.

Indicate which county or counties you are reporting on. _____

Above Average and Below Average refers to land you expect to produce yields above or below the state average respectively. Five year averages (1985-89) for corn, soybeans and hay in Michigan are:

	<u>Average Yield/Acre</u>
Corn	98 bu.
Soybeans	33 bu.
Hay	3 tons

Type of Land	Current Average Value	Current Range in Value		Percent Change in Value (Indicate + or -)		Percent Change in the Supply of Land on the Market in Last 12 Months Indicate + or -
		High	Low	Last 12 Months	Expected in Next 12 Months	
A. Corn-S.B.-Hay	\$/acre	\$/acre	\$/acre	% Change	% Change	% Change
Above Average						
Below Average						
B. Sugar Beet (if applicable)						

General Comments on Land Values in your area and Michigan:

What suggestions do you have to help us improve the questionnaire?

Would you be willing to participate in this survey periodically?

Yes
No

Would you like a summary of the survey results?

Yes
No

If you are interested in participating in future surveys or receiving a copy of the survey results, please provide your correct address and phone number.

Address:

Phone: _____

APPENDIX 2

Respondent Comments on Land Values

FARM LAND VALUE QUESTIONNAIRE
January 1991

Comments

1. Limited farmers buying. City people continue to buy recreation land and rural residential and part-time farm properties.
2. Farm land is in strong competition with recreational lands which command a good value.
3. Sugar beet land - stable value - has potential for increase to \$2000 with good 91 crop year. Non-beet land has limited upside potential, marginal tracts will hold values at \$350 - \$500 due to non-farm influence.
4. Farm commodity low prices have kept demand for land down.
5. Good to very good farms still sell very strong. The range between the good farms and the poor farms appears to be widening. Sugar beets keep the farm land in Gratiot Co. strong in the beet producing areas.
6. Several large farms in Jackson area currently for sale and may depress prices for next year or two.
7. Land values have shown some increase in the past two years. Based on the existing ag climate and the Middle East crisis I see prices being flat to declining.
8. Cash flow problems will hold land values from increasing too rapidly.
9. The best farms are selling quickly at high prices. Poor land can hardly be sold.
10. Two very profitable sugar beet crops in '89 and '90 have strengthened the market for our best land. In addition \$85 CRP payments have helped raise both rental and sale prices of all land.
11. Poor grain prices have lead to a low sale price and we are seeing more farm ground for sale than 1 year ago.
12. Good land (i.e. productive - good soil types - tiled) still sells well. Poor land is not selling except at a deep discount. Property over built sells at a discount. Values are following commodity prices and for 1991 to date values have been soft. (down 5-10%)
13. The very best productive ground commands lots of interest and marginal to poor ground has little or no interest. Poor quality ground should be sold to the first buyer who makes an offer. Buildings seem to have very little if any value.
14. The land markets have strengthened considerably but with a great deal of variation in prices for comparable land. It appears that areas in which much land was acquired by lenders and liquidated have a much softer market in general than in areas that did not.

These areas also correspond to the highest sugar beet growing areas which makes it difficult to establish cause and effect.

15. Values vary greatly depending on neighborhood. Sugar beet influence will support stable to slightly increased values while poor commodities prices will not strengthen general cropland values.
16. Consider land being sold for agriculture purposes to be quite stable at today's commodity prices - specialty crops - land is higher in value than land used for grain.
17. In Gratiot County the more productive soils, with 90% or more of the farm tillable, and tilled at close interval, readily sells at \$1200 - \$1400/acre, poorer land with drainage problems or light soil types is slow to sell, the price seems to be static. Fruit land on the west side of Michigan will, in my opinion, suffer a minimum of 10% to 20% price decline as a "glut" of fruit land comes on the market in 1991.
18. Stable in Kalamazoo due to urban influence. Other less urbanized counties might be expected to see a slight decline due to changing support prices.
19. Have held pretty steady the last 12 months.
20. Better quality land has improved in value and also crop rates for better quality land have improved in case rent increases are greater than value increases.
21. High quality land in demand, no (or little) interest in poor quality
22. Land values vary greatly in our area as in this area we have several different types of soils. Much of the land's value in this area is due to soil type. Irrigation improves land value significantly.
23. Stable to improving - somewhat subject to farmers profitability.
24. Hopefully they are stabilizing.
25. Land values are stable right now and will probably stay that way until crop prices improve.
26. Values tend to remain quite stable. Clinton Co. did not experience large increases or decreases in the 80's. Financial stability has contributed to stability of land values.
27. Were increasing last spring. They have backed off as commodity prices have weakened.
28. Land values are stable right now and will probably stay that way until crop prices improve.
29. Most sales are additions to existing farms and are not typical of a farm unit.

30. A good crop year in 1990 resulted in more interest in real estate. However, declining dairy and crop prices have recently produced more of a 'wait and see' attitude.
31. Livingston land values have usually stayed steady. Most farm land (90%) being sold in Liv. Co. is by sale for residential and not for farm use.
32. With milk prices lower people in our area are not likely to purchase more land.
33. Very best land is rarely sold outside of family. Recreational land sells for as much or more than poor quality crop land. There is substantial urban pressure with some sales up to \$4,000/acre near Middleville. Farmers cannot compete with some of these sales.
34. Diversified use in the area - nursery, blueberry, Xmas trees, various livestock - have effected the price of certain corn land. Also, increased residential development of Ottawa County has corn land being sold for other purposes at considerably higher prices.
35. Not much land changing hands in this market.
36. Values reported are agricultural values. Washtenaw County has many rural residence properties and part-time farms where values are driven by non-agricultural forces.
37. Decreasing ag demand. More recreational influence. No young farmers coming up to take the place of the retirees. Once farming stops, the farms do not go back into production.
38. Very little change and almost no sales this past year.
39. 80 acres and less are being purchased by hobby farmers or non farmers.
40. Very little amount of land sale in area.
41. Primarily potato type lands are selling at a high turnover rate at above average prices, \$800+.
42. Very difficult to establish an average value due to the diversity of crops in our area.
43. Wide range based on location and soil type including drainage quality.
44. Continued urban migration to St. Clair/Lapeer Counties. Large tracts of real property seen to be decreasing in availability driving up prices on smaller parcels.
45. Real estate in this area that is selling is for development for the most part. Many acres have not been enrolled in PA116, and are thus not protected. Few acres contain drain tile and therefore are not conducive to planting dry beans or sugarbeets.
46. Because most of the ag land is irrigated in the county, we have had a stable to gradual increase in demand and supply of farmland in the real estate market.

47. It has gradually risen steady since 1981.
48. Potato farmers are having an average year after 2 above-average years (irrigated). Dairy outlook is pessimistic at least in the short term (non-irrigated).
49. Land values remain soft overall with better ground still holding close to last years values.
50. Land values in Ottawa Co. remain strong, however influence of small part time units drives the market.
51. Approx. 2,000 acres sold at public auction in November '90 cash settlement on Dec. 1 '90 average of \$645.00 @ w/ center pivot - 20 ac to 300 ac parcels.
52. Generally West Michigan farmland has increased at a slow but steady rate keeping up with inflation.
53. Lapeer area ag land sale activity is very slow. Good farm land is a limited quantity. Many are holding it, expecting values to increase for housing development especially in the south 1/2 of the county.
54. Out migration of double income and 6 figure income people are pushing under 20 acre purchase price from \$2000 to \$5000/acre - woods and stream or pond has pushed individual sales over \$10,000/A.
55. Land prices are soft, little land for farming changing hands, occasional sale to non farm buyers up to \$1000 per ac. for small tracts. Last week 117 acre farm land - 100 crop - sold at auction for \$300 per ac. This is above average soil good surface drainage but no tile. With lower commodity prices dictated by 1990 farm act we expect to see further decline in land prices late in 1991.
56. There are very limited sales where the highest and best use of subject properties in Oceana Co. is the production of corn and hay. Asparagus and fruit is more typical. The supply of asparagus and fruit property has likely increased by 35% with prices (especially of average and below) dropping by 25%.
57. High quality land is selling above the point of "cash flowing."
58. Land values in the Sebawaing area are quite high as it is good farm land capable of producing good sugar beets.
59. Land values are stable for most part.
60. Believe land values will continue to improve as competition increases. I don't foresee rapid inflationary prices on real estate as most farm operations will utilize financial management when a decision of repurchase is made.
61. Our land values are significantly effected by: 1) residential demand, 2) good fruit site sells for a premium, 3) PA 116.

62. "Below Average" is comparable soils to that producing at the "Michigan 5 yr ave." Quality has a definite impact on values. Corn - SB-Hay "only" producers must compete with sugar beet producers on high quality land. They are likely prepared to pay "sugar beet" prices when the purchase is an attractive addition.
63. Slight improvement in area. Because of decent crop year.
64. Generally stable, small 2-3% increases over last 12 months. Several large auctions would indicate lower overall private treaty sales.
65. Demand is strong for very good cropland capable of producing specialty crops (i.e. tomatoes, potatoes) as well as corn & beans; avg. cropland demand is stable at best.
66. Productive soils are selling well and in good demand.
67. Land values are extremely variable due to extremely variable soil types. Overall, increases in the past 3 years should stabilize with the decrease in govt. support payment.
68. Considerable amount of below avg. tillage has gone on the market with no real interest in buying it.
69. Demand is strong for irrigated or non irrigated above average land. Land suitable for seed corn production markets highest. Amount of land available for sale is limited at this time.
70. Very little exchange 1-160 acre parcel \$102,000, 1-70 acre parcel \$42,000.
71. High yield soils with irrigation demand the highest prices per acre. Marginal land, sometimes with wet areas, is being purchased for rural residential and recreational uses.
72. Over the last 12 months, values increased slightly. Because of current economic conditions, the market is leveling out.
73. Sandusky area west to M-53 and north/northeast of Sandusky is the strongest area. There is quite a bit of non-tiled ground in the county. The county has a lot of lowland, swamps and woods. There is a demand for wooded parcels for hunting. There has been an increase in values for 1990 however I expect this to level off due to the downturn in the economy.
74. Recreational (hunting) land has kept market alive in marginal farming areas. For example, near Lake Huron and Minden Swamp (state land) hunters and speculators are paying well above that which can be justified for agricultural purposes.
75. Values have been strong over past 18 months.
76. Values have held strong over past 18 months.
77. Values have not shown any movement in 2-3 years.

78. Very slow market. Not much happening in farm land sales.
79. Slow market. Some movement in 40-160 a. parcels sold mainly for recreation or speculation.
80. Slow market. Should be more activity this year as some farmers are selling out.
81. Land values are showing signs of increasing faster than the income level to support the purchases.
82. Based on comparables sold in last 6-12 months. Steady increases due to 2 consecutive years of excellent weather and crop yields.
83. Seems to be holding steady, but having trouble financing with banks in our area.