



Western Ohio Cropland Values and Cash Rents 2013-14

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Abstract: Ohio cropland values and cash rental rates are projected to decrease in 2014. According to the Ohio Cropland Values and Cash Rents Survey bare cropland values in western Ohio are expected to decrease from 4.0% to 5.4% in 2014 depending on the region and land class. Cash rents are expected to decrease from 0.1% to 3.1% depending on the region and land class.

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Ohio cropland varies significantly in its production capabilities and cropland values and cash rents vary widely throughout the state. Generally speaking, western Ohio cropland values and cash rents differ substantially from eastern Ohio cropland values and cash rents. This is due to a number of factors including land productivity and potential crop return, the variability of those crop returns, field size, field shape, drainage, population, ease of access, market access, local market prices, potential for wildlife damage, field perimeter characteristics and competition for rented cropland in a region. This factsheet is a summary of data collected for western Ohio cropland values and cash rents.

Ohio cropland values and cash rental rates are projected to decrease in 2014. According to the Western Ohio Cropland Values and Cash Rents Survey, bare cropland values are expected to decrease from 4.0% to 5.4% in 2014 depending on the region and land class. Cash rents are expected to decrease from 0.1% to 3.1% depending on the region and land class.

The “Western Ohio Cropland Values and Cash Rents” study was conducted from January through April in 2014. The study is an opinion based survey surveying professionals knowledgeable about Ohio’s cropland values and rental rates. Surveyed groups include farm managers, rural appraisers, agricultural lenders, OSU Extension educators, farmers, landowners, and Farm Service Agency personnel.

One hundred twenty-seven surveys were completed, analyzed and summarized. Respondents were asked to give responses based on 3 classes of land in their area; “average” land, “top” land and “poor” land. They were asked to estimate 5 year corn and soybean yields for each land class based on typical farming practices. Survey respondents were asked to estimate current bare cropland values and cash rents negotiated in the current or recent year for each land class. Survey results are summarized below for Western Ohio and regional summaries (subsets of Western Ohio) are presented for Northwest Ohio and Southwest Ohio.

Tables show the Average (mean) of each measure, Standard Deviation of the data for that measure (measure of variability), and Range (average minus and plus one standard deviation). These latter two numbers reported indicate a range within which about two-thirds of the responses in the data for that measure will fall.

When interpreting this summary of survey results please be aware that results will differ widely within a region and it will be useful to consider the ranges that are listed in the tables as you consider how your parcels may compare. It is also important to stress that land in a given region does not fall neatly into thirds of each land class (average, top and poor). There will likely be very little acreage in a given county or region that will fall into the “top” land category. Top land will typically be large tracts of land with highly productive soils. “Average” land will typically make up the majority of land in a given region or county while “poor” land will tend to be land with lower productivity soils, poor drainage, or come in smaller tracts (or a combination of these).

Factors Affecting Cash Rental Rates

Ultimately, supply and demand of cropland for rent will determine the cash rental rate for each parcel. The expected return from producing crops on a farm parcel is the overriding factor in determining the demand for a farm and is the primary driver in establishing an equitable rental rate. Local supply and demand of cropland will be the primary driver of cash rental rates. Many of the following factors contribute to the expected crop return and the supply and demand of cropland. Other factors listed affect potential rental negotiations in different ways.

1. **Expected Crop Return – Rent** will vary based on expected crop return. The higher the expected return the higher the rent will tend to be.
2. **Variability of Crop Return – Land** that exhibits highly variable returns may have rents discounted for this quality. For example, land that is poorly drained may exhibit variability of returns due to late plantings from wet springs.
3. **Land Quality – Higher quality soils** translate into higher rents.
4. **Fertility Levels – Higher fertility levels** often result in higher cash rents.
5. **Drainage Capabilities – Better surface and sub-surface drainage** of a farm often results in better yields and higher potential cash rent.
6. **Buildings and Grain Storage Availability – Access to machinery and grain storage** may enhance the value of the cropland rental rate.
7. **Size of Farm – Large farms** typically command higher average cash rent per acre due to the efficiencies gained by operators.
8. **Location of Farm (Including Road Access) – Proximity to prospective operators** may determine how much operators are willing to bid for cash rents. Good road access will generally enhance cash rent amounts.
9. **Shape of Fields – Square fields with fewer “point rows”** will generally translate into higher cash rents as operators gain efficiencies from farming fields that are square.
10. **Previous Tillage Systems or Crops – Previous crops and tillage systems** that allow for an easy transition for new operators may enhance the cash rent value.
11. **USDA Farm Program Measurables – Farms that participate in the USDA Farm Program and have higher “program yields”** may command higher cash rents than non-program farms.
12. **Services Provided by Operator – Operators that “go the extra mile”** by providing services such as clearing fence rows, plowing snow in the winter, and other services may be valued by the landowner. This may even be a partial substitute for cash rent increases.
13. **Conditions of Lease – Conditions placed on the lease by the landowner** may result in fewer prospective operators and a lower average cash rent.
14. **Payment Dates – Leases that require part or all of the rent to be paid early in the year (“up-front”)** may result in lower rental rates due to higher borrowing or opportunity costs for the operator.
15. **Reputation of Landowner/Operator – Reputations of the parties** may play a part in the cash rental negotiations. A landowner that has a reputation of being difficult to work with may see cash rents negatively affected by this reputation.
16. **Special contracts that are tied to the farm – Farms that have special contracts tied to them** may restrict the operator from changing crops based on market conditions. This may negatively impact cash rents. There may also be contracts that positively affect cash rents such as high value crop contracts or contracts for receiving livestock manure.

17. Field Border Characteristics – fields surrounded by tree lined fence rows, wood lots or other borders affecting crop growth at the field edge will negatively impact yield and therefore should be considered in rental negotiations.
18. Wildlife Damage Potential – fields adjacent to significant wildlife cover including woodlots, tree lined fencerows, creeks and streams etc. may limit production potential to border rows and should be considered in rental negotiations.

Western Ohio Results

Survey results from Western Ohio are summarized in Table 1. See Figure 1 for counties included in this survey.

Average Cropland

Survey results for “average” producing cropland show an average yield to be 170.0 bushels of corn per acre. Results show that the value of “average” cropland in western Ohio was \$7,496 per acre in 2013. According to survey data this “average” producing cropland is expected to be valued at \$7,142 per acre in 2014. This is a projected decrease of 4.7%.

“Average” cropland rented for an average of \$211 per acre in 2013 according to survey results. “Average” cropland is expected to rent for \$205 per acre in 2014. This equates to a cash rent of \$1.24 per bushel of corn produced. Rents in the “average” cropland category are expected to equal 2.9% of land value in 2014.

Top Cropland

Survey results indicate that “top” performing cropland in western Ohio averages 199.3 bushels of corn per acre. Results also show that average value of “top” cropland in 2013 was \$9,082 per acre. According to this survey “top” cropland in western Ohio is expected to be valued at \$8,654 in 2014. This is a projected decrease of 4.7%.

“Top” cropland in western Ohio rented for an average of \$275 per acre in 2013 according to survey results. “Top” cropland is expected to rent for \$268 in 2014. This equates to a cash rent of \$1.34 per bushel of corn produced. Rents in the “top” cropland category are expected to equal 3.1% of land value in 2014.

Poor Cropland

The survey summary shows the average yield for “poor” performing cropland equals 140.0 bushels of corn per acre. Results also show that the average value of “poor” cropland was \$5,953 per acre in 2012. According to survey data this “poor” producing cropland is expected to be valued at \$5,658 in 2014. This is a decrease of 5.0%.

“Poor” cropland rented for an average of \$144 per acre in 2012 according to survey results. Cash Rent for “Poor” cropland is expected to average \$155 per acre in 2014. This equates to a cash rent of \$1.11 per bushel of corn produced in 2014. Rents in the “poor” cropland category are expected to equal 2.7% of land value in 2014.

“Top” cropland in northwest Ohio rented for an average of \$245 per acre in 2013 and is expected to rent for \$240 in 2014 according to survey results, which equals \$1.25 per bushel of corn produced. Rents in the “top” cropland category are expected to equal 2.9% of land value.

Poor Cropland

The survey summary shows the average yield for “poor” performing cropland in northwestern Ohio equals 135.3 bushels of corn per acre or 37.8 bushels of soybeans per acre. Results also show that the average value of “poor” cropland was \$5,759 per acre in 2013 and is expected to average \$5,455 per acre in 2014. This is a projected decrease of 5.3%.

“Poor” cropland rented for an average of \$140 per acre in 2013 and is expected to average \$140 per acre in 2014 according to survey results which equals \$1.11 per bushel of corn produced. Rents in the “poor” cropland category are expected to equal 2.7% of land value in 2014.

The northwest region for the purposes of this survey includes: Williams, Fulton, Lucas, Ottawa, Defiance, Henry, Wood, Sandusky, Paulding, Putnam, Hancock, Seneca, Van Wert, Allen, Hardin, Wyandot, Crawford, Marion and Morrow Counties. Parts of Richland, Huron and Erie counties will contain land parcels that will have cropland value and rental rate characteristics that are similar to southwest Ohio data listed in this publication See Figure 2.

Figure 2: Northwest Ohio



Southwest Ohio Results

Survey results from southwest Ohio are summarized in Table 3.

Average Cropland

Yields for “average” cropland equal 177.7 bushels of corn per acre. Results show that the value of “average” cropland in southwest Ohio was \$7,688 per acre in 2013. According to survey data this “average” producing cropland is expected to be valued at \$7,287 per acre in 2014. This is a projected decrease of 5.2%.

“Average” cropland rented for an average of \$232 per acre in 2013 and is expected to rent for \$225 per acre in 2014 according to survey results which equals \$1.27 per bushel of corn produced. Rents in the “average” cropland category are expected to equal 3.1% of land value in 2013.

Top Cropland

Survey results indicate that “top” performing cropland in southwest Ohio averages 206.6 bushels of corn per acre or 63.3 bushels of soybeans per acre. Results also show that average value of “top” cropland was \$9,311 per acre in 2013. According to this survey “top” producing cropland in southwest Ohio is expected to be valued at \$8,936 per acre in 2014. This is a projected decrease of 4.0%.

“Top” cropland in southwest Ohio rented for an average of \$306 per acre in 2013 and is expected to rent for \$297 per acre in 2014 according to survey results which equals \$1.44 per bushel of corn produced. Rents in the “top” cropland category are expected to equal 3.3% of land value in 2014.

Poor Cropland

The survey summary shows the average yield for “poor” cropland in southwestern Ohio equals 145.0 bushels of corn per acre. Results also show that the average value of “poor” cropland was \$6,159 per acre in 2013. According to survey data this “poor” producing cropland is expected to be valued at \$5,873 per acre in 2014. This is a decrease of 4.7%.

“Poor” cropland rented for an average of \$173 per acre in 2013 and is expected to average \$170 per acre in 2014 according to survey results which equals \$1.17 per bushel of corn produced. Rents in the “poor” cropland category are expected to equal 2.9% of land value in 2014.

The southwest region for the purposes of this survey includes: Mercer, Auglaize, Shelby, Logan, Union, Delaware, Darke, Miami, Champaign, Clark, Madison, Franklin, Preble, Montgomery, Greene, Clinton, Fayette and Pickaway Counties. Parts of Butler, Warren, Brown, Highland and Ross Counties will contain land parcels that will have cropland value and rental rate characteristics that are similar to southwest Ohio data listed in this publication. See Figure 3.

Figure 3: Southwest Ohio



Additional Survey Results

Survey respondents were asked to give their best estimates for long term land value and cash rent change as well as projections for mortgage and operating loan interest rates for 2014.

The average estimate of cropland value change in the next 5 years is a decrease of 8.92% (for the entire 5 year period). There was a large range in responses from survey participants for cropland value change in 5 years. Responses ranged from an increase of 15% to a decrease of 50%.

The average estimate of cash rent change in the next 5 years is a decrease of 8.71%. There was a large range in responses from survey participants for 5 year cash rent change. Responses ranged from an increase of 13% to a decrease of 50%.

The summary of these responses is presented in Tables 1 through 3 and includes: Expected Percent Change in the Value of Cropland in the Next 5 Years, Expected Percent Change in the Cash Rental Rates in the Next 5 Years, Expected Average Interest Rate for Mortgage Loans for 2014, Expected Average Operating Loan Rate for 2014, Pasture Cash Rent per Acre and the Value of Pasture Land. Tables 1 through 3 below show the results of the survey for these measures for Western Ohio, Northwest Ohio and Southwest Ohio.

Summary

This study will add to existing research on Ohio farmland values and cash rents that can assist producers and landowners with purchase and rental decisions. Existing research includes:

Western Ohio Cropland Values and Cash Rents 2012-13 at:

<http://ohioline.osu.edu/ae-fact/pdf/western-ohio-cropland-values-and-cash-rents-2012-13-AEDE-15-13.pdf>

Western Ohio Cropland Values and Cash Rents 2011-12 at:

http://ohioline.osu.edu/ae-fact/pdf/Western_Ohio_Cropland_Values_and_Cash_Rents_2011-12_AEDE-15-12.pdf

Western Ohio Cropland Values and Cash Rents 2010-11 at:

<http://ohioline.osu.edu/ae-fact/pdf/11-AED-911.pdf>

Western Ohio Cropland Values and Cash Rents 2009-10 at:

<http://ohioline.osu.edu/ae-fact/pdf/AEDE-RP-0125-10.pdf>

Ohio Cropland Values and Cash Rents 2008-09 at:

<http://ohioline.osu.edu/ae-fact/pdf/cropland0809.pdf>

Ohio Cropland Values and Cash Rents 2007-08 at:

http://ohioline.osu.edu/ae-fact/pdf/Cropland_Values_Rents_07_08.pdf

Ohio Cropland Values and Cash Rents 2006-07 at:

<http://ohioline.osu.edu/ae-fact/pdf/cropland.pdf>

Ohio Cropland Values and Cash Rents 2005-06 at:

<http://aede.osu.edu/resources/docs/pdf/D8QOMB09-77MY-IDPZ-DST14X1DMQ007PS6.pdf>

Ohio Farm Real Estate Markets (2003) at:

<http://aede.osu.edu/resources/docs/pdf/C2V16S20-H8CG-UEFY-JGL2H3JPU7Y1PO5J.pdf>

Also, check with your local OSU Extension Office for local land value/rental survey summaries. For additional information on farmland lease issues see the Department of Agricultural, Environmental and Development Economics (AEDE) Farm Management webpage at: <http://aede.osu.edu/Programs/FarmManagement/MgtPublications.htm>

Table 1: Ohio Cropland Values and Cash Rents						
Western Ohio Results						
Land Class			Average	Standard Deviation	Range*	
Average		Avg Corn Yield (bu/a)	170.0	15.6	185.6	154.4
		Avg Soybean Yield (bu/a)	50.3	4.3	54.5	46.0
	Market Value per Acre	2013	\$7,496	\$1,536	\$9,032	\$5,960
		2014	\$7,142	\$1,543	\$8,685	\$5,598
	Rent per Acre	2013	\$211	\$43	\$254	\$167
		2014	\$205	\$42	\$247	\$163
Top		Avg Corn Yield (bu/a)	199.3	17.9	217.1	181.4
		Avg Soybean Yield (bu/a)	61.8	6.0	67.8	55.8
	Market Value per Acre	2013	\$9,082	\$1,818	\$10,900	\$7,265
		2014	\$8,654	\$1,802	\$10,456	\$6,852
	Rent per Acre	2013	\$275	\$57	\$332	\$218
		2014	\$268	\$56	\$324	\$211
Poor		Avg Corn Yield (bu/a)	140.0	16.3	156.3	123.7
		Avg Soybean Yield (bu/a)	39.8	6.6	46.4	33.2
	Market Value per Acre	2013	\$5,953	\$1,423	\$7,376	\$4,530
		2014	\$5,658	\$1,483	\$7,141	\$4,174
	Rent per Acre	2013	\$156	\$44	\$201	\$112
		2014	\$155	\$45	\$200	\$110
Five Year Projected Percent Change in Cropland Value			-8.92%	11.58%	2.66%	-20.50%
Five Year Projected Percent Change in Cash Rent			-8.71%	11.51%	2.80%	-20.21%
Mortgage Interest Rate - 20 Year Fixed - Projected 2014			5.13%	0.77%	5.90%	4.36%
Operating Loan Rate - Projected 2014			4.29%	0.84%	5.13%	3.46%
Pasture Cash Rent - Projected 2014 - Improved, Non-Rotation			\$66	\$31	\$98	\$35
Pasture Land Value - Projected 2014 - Improved, Non-Rotation			\$4,052	\$1,548	\$5,600	\$2,504
* Range - One standard deviation above and below the average (mean).						
Approximately two-thirds of the responses fall within this range.						

Table 2: Ohio Cropland Values and Cash Rents						
Northwest Ohio Results						
Land Class			Average	Standard Deviation	Range*	
Average		Avg Corn Yield (bu/a)	162.9	11.7	174.7	151.2
		Avg Soybean Yield (bu/a)	49.0	4.1	53.1	44.8
	Market Value per Acre	2013	\$7,320	\$1,318	\$8,638	\$6,002
		2014	\$7,009	\$1,297	\$8,306	\$5,711
	Rent per Acre	2013	\$191	\$41	\$232	\$150
		2014	\$187	\$40	\$227	\$147
Top		Avg Corn Yield (bu/a)	192.4	13.1	205.5	179.3
		Avg Soybean Yield (bu/a)	60.3	6.3	66.7	54.0
	Market Value per Acre	2013	\$8,867	\$1,455	\$10,323	\$7,412
		2014	\$8,389	\$1,385	\$9,774	\$7,004
	Rent per Acre	2013	\$245	\$52	\$298	\$193
		2014	\$240	\$52	\$292	\$189
Poor		Avg Corn Yield (bu/a)	135.3	15.4	150.7	119.9
		Avg Soybean Yield (bu/a)	37.8	4.6	42.3	33.2
	Market Value per Acre	2013	\$5,759	\$1,381	\$7,140	\$4,378
		2014	\$5,455	\$1,347	\$6,802	\$4,108
	Rent per Acre	2013	\$140	\$35	\$175	\$106
		2014	\$140	\$34	\$174	\$106
Five Year Projected Percent Change in Cropland Value			-10.56%	9.22%	-1.34%	-19.78%
Five Year Projected Percent Change in Cash Rent			-8.53%	9.24%	0.71%	-17.77%
Mortgage Interest Rate - 20 Year Fixed - Projected 2014			5.06%	0.84%	5.89%	4.22%
Operating Loan Rate - Projected 2014			4.10%	0.50%	4.60%	3.59%
Pasture Cash Rent - Projected 2014 - Improved, Non-Rotation			\$67	\$17	\$83	\$50
Pasture Land Value - Projected 2014 - Improved, Non-Rotation			\$4,400	\$1,523	\$5,923	\$2,877
* Range - One standard deviation above and below the average (mean).						
Approximately two-thirds of the responses fall within this range.						

Table 3: Ohio Cropland Values and Cash Rents						
Southwest Ohio Results						
Land Class			Average	Standard Deviation	Range*	
Average	Avg Corn Yield (bu/a)		177.7	15.8	193.5	161.9
	Avg Soybean Yield (bu/a)		51.6	4.0	55.7	47.6
	Market Value per Acre	2013	\$7,688	\$1,745	\$9,433	\$5,943
		2014	\$7,287	\$1,784	\$9,072	\$5,503
	Rent per Acre	2013	\$232	\$35	\$267	\$197
		2014	\$225	\$35	\$260	\$190
Top	Avg Corn Yield (bu/a)		206.6	19.4	226.1	187.2
	Avg Soybean Yield (bu/a)		63.3	5.3	68.7	58.0
	Market Value per Acre	2013	\$9,311	\$2,136	\$11,446	\$7,175
		2014	\$8,936	\$2,145	\$11,081	\$6,791
	Rent per Acre	2013	\$306	\$44	\$350	\$262
		2014	\$297	\$46	\$343	\$250
Poor	Avg Corn Yield (bu/a)		145.0	16.0	161.0	129.0
	Avg Soybean Yield (bu/a)		42.0	7.7	49.6	34.3
	Market Value per Acre	2013	\$6,159	\$1,459	\$7,618	\$4,701
		2014	\$5,873	\$1,609	\$7,482	\$4,264
	Rent per Acre	2013	\$173	\$48	\$221	\$126
		2014	\$170	\$51	\$221	\$120
Five Year Projected Percent Change in Cropland Value			-7.33%	13.43%	6.10%	-20.76%
Five Year Projected Percent Change in Cash Rent			-8.88%	13.43%	4.56%	-22.31%
Mortgage Interest Rate - 20 Year Fixed - Projected 2014			5.21%	0.70%	5.91%	4.52%
Operating Loan Rate - Projected 2014			4.52%	1.07%	5.59%	3.45%
Pasture Cash Rent - Projected 2014 - Improved, Non-Rotation			\$66	\$38	\$104	\$29
Pasture Land Value - Projected 2014 - Improved, Non-Rotation			\$3,832	\$1,563	\$5,395	\$2,268
* Range - One standard deviation above and below the average (mean).						
Approximately two-thirds of the responses fall within this range.						

Table 4. Average estimated Ohio land value per acre (tillable, bare land), per bu. corn and soybean yields, by geographical area and land class
Ohio Cropland Values and Cash Rents Survey 2013-14

				Land Value		
				Dollars Per Acre		
				2013	2014*	% Change
Area	Land Class	Corn bu/A	Soy bu/A	\$/A	\$/A	'13 to '14
Northwest	Average	162.9	49.0	\$7,320	\$7,009	-4.3%
	Top	192.4	60.3	\$8,867	\$8,389	-5.4%
	Poor	135.3	37.8	\$5,759	\$5,455	-5.3%
Southwest	Average	177.7	51.6	\$7,688	\$7,287	-5.2%
	Top	206.6	63.3	\$9,311	\$8,936	-4.0%
	Poor	145.0	42.0	\$6,159	\$5,873	-4.7%
Western	Average	170.0	50.3	\$7,496	\$7,142	-4.7%
	Top	199.3	61.8	\$9,082	\$8,654	-4.7%
	Poor	140.0	39.8	\$5,953	\$5,658	-5.0%
* Projected Land Value						

Table 5. Average estimated Ohio cash rent per acre (tillable, bare land), per bushel corn and soybean yields, by geographical area and land class
Ohio Cropland Values and Cash Rents Survey 2013-14

				Rent Per Acre		Rent per Bushel Corn		Rent as % of	Rent as % of	
				2013	2014*	% Change	2013	2014	Land Value	Land Value
Area	Land Class	Corn bu/A	Soy bu/A	\$/A	\$/A	13 to '14	\$/Bu	\$/Bu	%	%
Northwest	Average	162.9	49.0	\$191	\$187	-2.2%	\$1.17	\$1.15	2.6%	2.7%
	Top	192.4	60.3	\$245	\$240	-2.0%	\$1.28	\$1.25	2.8%	2.9%
	Poor	135.3	37.8	\$140	\$140	-0.1%	\$1.04	\$1.04	2.4%	2.6%
Southwest	Average	177.7	51.6	\$232	\$225	-3.1%	\$1.31	\$1.27	3.0%	3.1%
	Top	206.6	63.3	\$306	\$297	-3.0%	\$1.48	\$1.44	3.3%	3.3%
	Poor	145.0	42.0	\$173	\$170	-1.8%	\$1.20	\$1.17	2.8%	2.9%
Western	Average	170.0	50.3	\$211	\$205	-2.7%	\$1.24	\$1.21	2.8%	2.9%
	Top	199.3	61.8	\$275	\$268	-2.5%	\$1.38	\$1.34	3.0%	3.1%
	Poor	140.0	39.8	\$156	\$155	-1.0%	\$1.12	\$1.11	2.6%	2.7%
* Projected Rental Rate										