

## Western Ohio Cropland Values and Cash Rents 2011-12

Barry Ward ([ward.8@osu.edu](mailto:ward.8@osu.edu)) Leader Production Business Management  
OSU Extension, OSU Department of Agricultural, Environmental and Development Economics  
(AEDE)

**Abstract:** Ohio cropland values and cash rental rates are projected to increase in 2012. According to the Ohio Cropland Values and Cash Rents Survey bare cropland values in western Ohio are expected to increase from 7.3% to 9.1% in 2012 depending on the region and land class. Cash rents are expected to increase from 5.7% to 11.5% depending on the region and land class.

## **Western Ohio Cropland Values and Cash Rents 2011-12**

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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 price, potential for wildlife damage, 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 increase in 2012. According to the Western Ohio Cropland Values and Cash Rents Survey, bare cropland values are expected to increase from 7.3% to 9.1% in 2012 depending on the region and land class. Cash rents are expected to increase from 5.7% to 11.5% depending on the region and land class.

The “Western Ohio Cropland Values and Cash Rents” study was conducted surveying professionals knowledgeable about Ohio’s cropland markets. Surveyed groups include farm managers, rural appraisers, agricultural lenders, OSU Extension educators, farmers, landowners, and Farm Service Agency personnel.

Seventy-seven surveys were completed, analyzed and summarized. Respondents were asked to give responses based on 3 classes of land in their area; “top” land, “average” 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 all of 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.

## **Western Ohio Results**

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

### **Top Cropland**

Survey results indicate that “top” performing cropland in western Ohio averages 193.8 bushels of corn per acre. Results also show that average value of “top” cropland in 2011 was \$6,732 per acre. According to this survey “top” cropland in western Ohio is expected to be valued at \$7,293 in 2012. This is a projected increase of 8.3%.

“Top” cropland in western Ohio rented for an average of \$229 per acre in 2011 according to survey results. “Top” cropland is expected to rent for \$250 in 2012. This equates to a cash rent of \$1.29 per bushel of corn produced. Rents in the “top” cropland category are expected to equal 3.4% of land value in 2012.

## Average Cropland

Survey results for “average” producing cropland show an average yield to be 160.5 bushels of corn per acre. Results show that the value of “average” cropland in western Ohio was \$5,504 per acre in 2011. According to survey data this “average” producing cropland is expected to be valued at \$5,916 per acre in 2012. This is a projected increase of 7.5%.

“Average” cropland rented for an average of \$179 per acre in 2011 according to survey results. “Average” cropland is expected to rent for \$194 per acre in 2012. This equates to a cash rent of \$1.21 per bushel of corn produced. Rents in the “average” cropland category are expected to equal 3.3% of land value in 2012.

## Poor Cropland

The survey summary shows the average yield for “poor” performing cropland equals 130.7 bushels of corn per acre. Results also show that the average value of “poor” cropland was \$4,439 per acre in 2011. According to survey data this “poor” producing cropland is expected to be valued at \$4,805 in 2012. This is an increase of 8.2%.

“Poor” cropland rented for an average of \$140 per acre in 2011 according to survey results. Cash Rent for “Poor” cropland is expected to average \$150 per acre in 2012. This equates to a cash rent of \$1.15 per bushel of corn produced in 2012. Rents in the “poor” cropland category are expected to equal 3.1% of land value in 2012.

Figure 1: Western Ohio



## **Northwest Ohio Results**

Survey results from northwest Ohio are summarized in Table 2.

### **Top Cropland**

Survey results indicate that “top” performing cropland in northwest Ohio averages 186.7 bushels of corn per acre or 59.9 bushels of soybeans per acre. Results also show that the average value of “top” cropland was \$6,314 per acre in 2011. According to this survey “top” producing cropland in northwest Ohio is expected to be valued at \$6,886 in 2012. This is a projected increase of 9.1%.

“Top” cropland in northwest Ohio rented for an average of \$208 per acre in 2011 and is expected to rent for \$232 in 2012 according to survey results, which equals \$1.24 per bushel of corn produced. Rents in the “top” cropland category are expected to equal 3.4% of land value.

### **Average Cropland**

Yields for “average” producing cropland average 156.0 bushels of corn per acre or 48.8 bushels of soybeans per acre. Results show that the value of “average” cropland in northwest Ohio was \$5,303 per acre in 2011. According to survey data this “average” producing cropland is expected to be valued at \$5,688 per acre in 2012. This is a projected increase of 7.3%.

“Average” cropland rented for an average of \$162 per acre in 2011 according to survey results and is expected to rent for \$180 in 2012 which equals \$1.15 per bushel of corn produced. Rents in the “average” cropland category are expected to equal 3.2 % of land value in 2012.

### **Poor Cropland**

The survey summary shows the average yield for “poor” performing cropland in northwestern Ohio equals 127.2 bushels of corn per acre or 39.5 bushels of soybeans per acre. Results also show that the average value of “poor” cropland was \$4,315 per acre in 2011 and is expected to average \$4,654 per acre in 2012. This is a projected increase of 7.9%.

“Poor” cropland rented for an average of \$122 per acre in 2011 and is expected to average \$131 per acre in 2012 according to survey results which equals \$1.03 per bushel of corn produced. Rents in the “poor” cropland category are expected to equal 2.8% of land value in 2012.

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. See Figure 2.

Figure 2: Northwest Ohio



### **Southwest Ohio Results**

Survey results from southwest Ohio are summarized in Table 3.

#### **Top Cropland**

Survey results indicate that “top” performing cropland in southwest Ohio averages 198.1 bushels of corn per acre or 59.6 bushels of soybeans per acre. Results also show that average value of “top” cropland was \$7,030 per acre in 2011. According to this survey “top” producing cropland in southwest Ohio is expected to be valued at \$7,584 per acre in 2012. This is a projected increase of 7.9%.

“Top” cropland in southwest Ohio rented for an average of \$245 per acre in 2011 and is expected to rent for \$263 per acre in 2012 according to survey results which equals \$1.33 per bushel of corn produced. Rents in the “top” cropland category are expected to equal 3.5% of land value in 2012.

#### **Average Cropland**

Yields for “average” cropland equal 163.5 bushels of corn per acre. Results show that the value of “average” cropland in southwest Ohio was \$5,660 per acre in 2011. According to survey data this “average” producing cropland is expected to be valued at \$6,092 per acre in 2012. This is a projected increase of 7.6%.

“Average” cropland rented for an average of \$194 per acre in 2011 and is expected to rent for \$205 per acre in 2012 according to survey results which equals \$1.25 per bushel of corn produced. Rents in the “average” cropland category are expected to equal 3.4% of land value in 2012.

### Poor Cropland

The survey summary shows the average yield for “poor” cropland in southwestern Ohio equals 133.0 bushels of corn per acre. Results also show that the average value of “poor” cropland was \$4,538 per acre in 2011. According to survey data this “poor” producing cropland is expected to be valued at \$4,926 per acre in 2012. This is an increase of 8.6%.

“Poor” cropland rented for an average of \$155 per acre in 2011 and is expected to average \$165 per acre in 2012 according to survey results which equals \$1.24 per bushel of corn produced. Rents in the “poor” cropland category are expected to equal 3.3% of land value in 2012.

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, Butler, Warren, Hamilton, Clermont, Clinton, Fayette and Pickaway Counties. 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 2012.

The average estimate of cropland value change in the next 5 years is an increase of 7.21% (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 40% to a decrease of 25%.

The average estimate of cash rent change in the next 5 years is an increase of 6.9%. There was a large range in responses from survey participants for cash rent change in 5 years. Responses ranged from an increase of 30% to a decrease of 38%.

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 2012, Expected Average Operating Loan Rate for 2012, 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:

Ohio Cropland Values and Cash Rents 2010-11 at:

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

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](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*	
Top	Avg Corn Yield (bu/a)		193.8	17.5	211.4	176.3
	Avg Soybean Yield (bu/a)		59.7	5.7	65.4	54.0
	Market Value per Acre	2011	\$6,732	\$1,385	\$8,116	\$5,347
		2012	\$7,293	\$1,443	\$8,736	\$5,850
	Rent per Acre	2011	\$229	\$38	\$268	\$191
		2012	\$250	\$42	\$292	\$208
Average	Avg Corn Yield (bu/a)		160.5	14.4	174.9	146.1
	Avg Soybean Yield (bu/a)		48.9	4.6	53.5	44.3
	Market Value per Acre	2011	\$5,504	\$1,103	\$6,607	\$4,401
		2012	\$5,916	\$1,084	\$7,000	\$4,832
	Rent per Acre	2011	\$179	\$39	\$219	\$140
		2012	\$194	\$36	\$230	\$158
Poor	Avg Corn Yield (bu/a)		130.7	16.4	147.0	114.3
	Avg Soybean Yield (bu/a)		39.5	6.2	45.7	33.2
	Market Value per Acre	2011	\$4,439	\$1,085	\$5,524	\$3,354
		2012	\$4,805	\$1,102	\$5,907	\$3,703
	Rent per Acre	2011	\$140	\$33	\$173	\$107
		2012	\$150	\$30	\$180	\$120
Five Year Projected Percent Change in Cash Rent			6.90%	12.61%	19.51%	-5.72%
Five Year Projected Percent Change in Cropland Value			7.21%	11.20%	18.40%	-3.99%
Mortgage Interest Rate - 20 Year Fixed - Projected 2012			5.33%	0.70%	6.04%	4.63%
Operating Loan Rate - Projected 2012			4.66%	1.06%	5.72%	3.60%
Pasture Cash Rent - Projected 2012 - Improved, Non-Rotation			\$56	\$33	\$89	\$23
Pasture Land Value - Projected 2012 - Improved, Non-Rotation			\$3,183	\$995	\$4,178	\$2,189
* 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*		
Top	Avg Corn Yield (bu/a)		186.7	17.5	204.2	169.2	
	Avg Soybean Yield (bu/a)		59.9	5.4	65.3	54.5	
	Market Value per Acre	2011	\$6,314	\$1,184	\$7,498	\$5,130	
		2012	\$6,886	\$1,187	\$8,074	\$5,699	
	Rent per Acre	2011	\$208	\$36	\$244	\$172	
		2012	\$232	\$43	\$276	\$189	
Average	Avg Corn Yield (bu/a)		156.0	13.7	169.8	142.3	
	Avg Soybean Yield (bu/a)		48.8	4.5	53.3	44.2	
	Market Value per Acre	2011	\$5,303	\$966	\$6,268	\$4,337	
		2012	\$5,688	\$942	\$6,629	\$4,746	
	Rent per Acre	2011	\$162	\$29	\$191	\$132	
		2012	\$180	\$31	\$211	\$149	
Poor	Avg Corn Yield (bu/a)		127.2	18.1	145.3	109.1	
	Avg Soybean Yield (bu/a)		39.5	5.9	45.4	33.6	
	Market Value per Acre	2011	\$4,315	\$1,004	\$5,319	\$3,311	
		2012	\$4,654	\$883	\$5,537	\$3,770	
	Rent per Acre	2011	\$122	\$20	\$142	\$101	
		2012	\$131	\$19	\$150	\$112	
Five Year Projected Percent Change in Cash Rent			5.40%	13.44%	18.84%	-8.04%	
Five Year Projected Percent Change in Cropland Value			8.25%	12.90%	21.15%	-4.65%	
Mortgage Interest Rate - 20 Year Fixed - Projected 2012			5.43%	0.71%	6.14%	4.72%	
Operating Loan Rate - Projected 2012			4.26%	0.41%	4.67%	3.84%	
Pasture Cash Rent - Projected 2012 - Improved, Non-Rotation			\$68	\$36	\$103	\$32	
Pasture Land Value - Projected 2012 - Improved, Non-Rotation			\$2,758	\$892	\$3,650	\$1,866	
* 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*	
Top	Avg Corn Yield (bu/a)		198.1	16.4	214.5	181.6
	Avg Soybean Yield (bu/a)		59.6	6.0	65.6	53.6
	Market Value per Acre	2011	\$7,030	\$1,459	\$8,490	\$5,571
		2012	\$7,584	\$1,556	\$9,140	\$6,028
	Rent per Acre	2011	\$245	\$33	\$277	\$212
		2012	\$263	\$37	\$300	\$226
Average	Avg Corn Yield (bu/a)		163.5	14.3	177.9	149.2
	Avg Soybean Yield (bu/a)		49.0	4.8	53.8	44.2
	Market Value per Acre	2011	\$5,660	\$1,193	\$6,852	\$4,467
		2012	\$6,092	\$1,169	\$7,261	\$4,923
	Rent per Acre	2011	\$194	\$41	\$235	\$152
		2012	\$205	\$36	\$241	\$169
Poor	Avg Corn Yield (bu/a)		133.0	15.1	148.0	117.9
	Avg Soybean Yield (bu/a)		39.5	6.6	46.1	32.8
	Market Value per Acre	2011	\$4,538	\$1,156	\$5,694	\$3,382
		2012	\$4,926	\$1,255	\$6,181	\$3,671
	Rent per Acre	2011	\$155	\$34	\$189	\$121
		2012	\$165	\$29	\$194	\$136
Five Year Projected Percent Change in Cash Rent			7.96%	12.13%	20.09%	-4.16%
Five Year Projected Percent Change in Cropland Value			6.46%	9.98%	16.45%	-3.52%
Mortgage Interest Rate - 20 Year Fixed - Projected 2012			5.23%	0.70%	5.94%	4.53%
Operating Loan Rate - Projected 2012			5.12%	1.36%	6.48%	3.76%
Pasture Cash Rent - Projected 2012 - Improved, Non-Rotation			\$49	\$31	\$80	\$18
Pasture Land Value - Projected 2012 - Improved, Non-Rotation			\$3,353	\$1,010	\$4,364	\$2,343
* Range - One standard deviation above and below the average (mean).						
Approximately two-thirds of the responses fall within this range.						

<b>Table 4. Average estimated Ohio land value per acre (tillable, bare land), per bu. corn and soybean yields, by geographical area and land class</b>						
<b>Ohio Cropland Values and Cash Rents Survey 2011-12</b>						
				<b>Land Value</b>		
				<b>Dollars Per Acre</b>		
				<b>2011</b>	<b>2012*</b>	<b>% Change</b>
<b>Area</b>	<b>Land Class</b>	<b>Corn bu/A</b>	<b>Soy bu/A</b>	<b>\$/A</b>	<b>\$/A</b>	<b>'11 to '12</b>
<b>Northwest</b>	<b>Top</b>	186.7	59.9	\$6,314	\$6,886	9.1%
	<b>Average</b>	156.0	48.8	\$5,303	\$5,688	7.3%
	<b>Poor</b>	127.2	39.5	\$4,315	\$4,654	7.9%
<b>Southwest</b>	<b>Top</b>	198.1	59.6	\$7,030	\$7,584	7.9%
	<b>Average</b>	163.5	49.0	\$5,660	\$6,092	7.6%
	<b>Poor</b>	133.0	39.5	\$4,538	\$4,926	8.6%
<b>Western</b>	<b>Top</b>	193.8	59.7	\$6,732	\$7,293	8.3%
	<b>Average</b>	160.5	48.9	\$5,504	\$5,916	7.5%
	<b>Poor</b>	130.7	39.5	\$4,439	\$4,805	8.2%
<b>* Projected Land Value</b>						

