

OHIO STATE UNIVERSITY EXTENSION

# CURRENT AGRICULTURAL USE VALUATION (CAUV)



**THE OHIO STATE UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

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# WHY ARE WE HERE?

- **REAPPRAISAL** – the law requires the county auditor to reappraise real property every six years for tax purposes
- **TRIENNIAL UPDATE** – in the third year after a reappraisal, the auditor is required to update values based upon sales
- **THEREFORE:** property values are adjusted every 3 years



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## YEAR OF SEXENNIAL REAPPRAISAL AND TRIENNIAL UPDATE FOR OHIO'S 88 COUNTIES 2014 - 2019

<b>2014 REAPPRAISAL COUNTIES</b>	<b>2015 REAPPRAISAL COUNTIES</b>	<b>2016 REAPPRAISAL COUNTIES</b>	<b>2017 REAPPRAISAL COUNTIES</b>	<b>2018 REAPPRAISAL COUNTIES</b>	<b>2019 REAPPRAISAL COUNTIES</b>
ASHLAND ASHTABULA ATHENS BUTLER CLERMONT FULTON GREENE KNOX MADISON MONTGOMERY NOBLE SUMMIT WAYNE	ALLEN COSHOCOTON GUERNSEY SANDUSKY VINTON  2015 UPDATE COUNTIES	ADAMS COLUMBIANA HANCOCK HOCKING HOLMES LAWRENCE MEIGS MONROE PAULDING SCIOTO TUSCARAWAS WASHINGTON  2016 UPDATE COUNTIES	AUGLAIZE CLINTON DARKE DEFLANCE DELAWARE FRANKLIN GALLIA GEAUGA HAMILTON HARRISON HENRY JACKSON LICKING MAHONING MERCER MORROW PERRY PICKAWAY PIKE PREBLE PUTNAM RICHLAND SENECA SHELBY TRUMBULL VANWERT WOOD  2017 UPDATE COUNTIES	BELMONT BROWN CRAWFORD CUYAHOGA ERIE FAYETTE HIGHLAND HURON JEFFERSON LAKE LORAIN LUCAS MORGAN MUSKINGUM OTTAWA PORTAGE STARK WARREN WILLIAMS  2018 UPDATE COUNTIES	CARROLL CHAMPAGN CLARK FAIRFIELD LOGAN MARION MEDINA MIAMI ROSS UNION WYANDOT  2019 UPDATE COUNTIES
2014 UPDATE COUNTIES	2015 UPDATE COUNTIES	2016 UPDATE COUNTIES	2017 UPDATE COUNTIES	2018 UPDATE COUNTIES	2019 UPDATE COUNTIES
AUGLAIZE CLINTON DARKE DEFLANCE DELAWARE FRANKLIN GALLIA GEAUGA HAMILTON HARRISON HENRY JACKSON LICKING MAHONING MERCER MORROW PERRY PICKAWAY PIKE PREBLE PUTNAM RICHLAND SENECA SHELBY TRUMBULL VANWERT WOOD	ALLEN COSHOCOTON GUERNSEY SANDUSKY VINTON  2015 UPDATE COUNTIES	ADAMS COLUMBIANA HANCOCK HOCKING HOLMES LAWRENCE MEIGS MONROE PAULDING SCIOTO TUSCARAWAS WASHINGTON  2016 UPDATE COUNTIES	AUGLAIZE CLINTON DARKE DEFLANCE DELAWARE FRANKLIN GALLIA GEAUGA HAMILTON HARRISON HENRY JACKSON LICKING MAHONING MERCER MORROW PERRY PICKAWAY PIKE PREBLE PUTNAM RICHLAND SENECA SHELBY TRUMBULL VANWERT WOOD  2017 UPDATE COUNTIES	BELMONT BROWN CRAWFORD CUYAHOGA ERIE FAYETTE HIGHLAND HURON JEFFERSON LAKE LORAIN LUCAS MORGAN MUSKINGUM OTTAWA PORTAGE STARK WARREN WILLIAMS  2018 UPDATE COUNTIES	CARROLL CHAMPAGN CLARK FAIRFIELD LOGAN MARION MEDINA MIAMI ROSS UNION WYANDOT  2019 UPDATE COUNTIES

# FAIR MARKET VALUE

- The price at which a property will change hands between a willing buyer and willing seller with adequate time and knowledge
- Does not include foreclosures, auctions, and sales between related parties



# FAIR MARKET VALUE

- There are two exceptions to this rule, both provided in the Ohio Constitution
  - Forest Tax
  - CAUV



## CAUV REDUCTION FROM FMV

- When CAUV was adopted in 1975, the program was designed to provide a 50% reduction from fair market value
- In 2005, CAUV provided a 90% reduction
- In 2010, CAUV provided a 77% reduction
- In 2014, CAUV provides a 62% reduction



## WE ARE ONLY TALKING ABOUT THE VALUE OF LAND – NOT YOUR FINAL TAX BILL

- This program is designed to calculate the value of your land, which serves as the starting point for calculating your taxes
- Factors that affect real property taxes:
  - Adjustments in property values
  - Millage or tax rate
  - Tax adjustment factor
  - Credits: 10% rollback, 2.5% rollback, Homestead exemption





## REQUIREMENT FOR QUALIFICATION OHIO REVISED CODE SECTION 5713.31

- Land totaling 10 or more acres
  - Can combine units if farmed as one unit
  - Some counties require 11 acres if house there
- That for the three preceding calendar years
- Were devoted exclusively to commercial agricultural use, OR
- Enrolled in a federal government program



REQUIREMENT FOR QUALIFICATION  
OHIO REVISED CODE SECTION 5713.31

- If land totals less than 10 acres, but-
- For the preceding 3 years, land was-
- Devoted exclusively to commercial agricultural use, and-
- The average annual gross income was \$2500 from agricultural activity, OR
- Land enrolled in a federal government program



REQUIREMENT FOR QUALIFICATION  
OHIO REVISED CODE SECTION 5713.31

- After land enrolled in CAUV for 3 years, you can allow land to lie fallow for 1 year (up to 3 years for good cause), if there are no acts inconsistent with the land being returned to agricultural use
- Less than 25% of tract devoted to conservation purposes
  - Grass waterways, terraces, diversions, filter strips, field borders, windbreaks, riparian buffers, wetlands, ponds, or cover crops for these purposes



## WHAT IS AGRICULTURAL USE? OHIO REVISED CODE SECTION 5713.30

- Must be for a commercial purpose
- Animal or poultry husbandry, aquaculture, apiculture, commercial timber or timber contiguous to other qualifying land, field crops, tobacco, fruits, vegetables, nursery stock, ornamental trees, sod, or flowers
- Land devoted exclusively to biodiesel production, biomass energy production, electric or heat energy production, or biologically derived methane gas
  - At least 50% of feedstocks must be produced on land under common ownership
  - Facility must be contiguous to, or on land under common ownership



## EXPLANATION OF THE CALCULATION OF VALUES FOR VARIOUS SOILS (2014)

- CAUV land values are calculated by the capitalization of net income from agricultural products assuming typical management, cropping and land use patterns, and yields for given types of soils
- There are approximately 3500 different soil types with slopes of 25% or less



## FACTORS USED IN CALCULATION

- Based on 3 crops– corn, beans and wheat
- 1) Yields- begin with NRCS crop yield estimates, adjusted by the 10-year average of actual yields
  - 2) Crop prices- based upon a survey of elevators
  - 3) Cropping pattern- based upon the % of a crop compared to total acres of the 3 crops planted
  - 4) Production costs- from OSU crop budgets
  - 5) Capitalization rate- starts with mortgage interest rate for 15-year fixed rate mortgage from Farm Credit, with 40% attributed to equity and 60% to debt, adjusted for property taxes



# ROLLING AVERAGES USED

- Yields – the actual yields reported by ODA for the last 10 years are averaged and compared to the 1984 NRCS base yield
- Cropping pattern- averaged over the last 5 years
- Prices, costs, and capitalization rate-
  - Based upon the last seven years with the high and low number removed and the remaining five years averaged



# Crop Yields/Cropping Pattern

- Soil yields from 1984 are adjusted by the 10-year average of actual yields per acre for 2003-2012.
- Single crop pattern for most soils based on the most recent five-year average of acres harvested, 2008-2012:

• Corn	38.6%
• Soybeans	52.0%
• Wheat	9.4%
- Maintain 50% corn and 50% soybeans for organic and frequently flooded soils.





**CROP PRICES USED IN FIVE YR. AVERAGE**

Source: USDA National Agricultural Statistics Service

<u>Crop Year</u>	<u>CORN</u>	<u>SOYBEANS</u>	<u>WHEAT</u>
2012	\$ 7.45	\$ 14.50	\$ <del>8.40</del>
2011	\$ 6.40	\$ 11.90	\$ 6.60
2010	\$ 5.55	\$ 11.80	\$ 5.20
2009	\$ 3.70	\$ 9.60	\$ 4.35
2008	\$ 3.95	\$ 9.60	\$ 5.80
2007	\$ 3.95	\$ 10.10	\$ 5.50
2006	\$ <del>3.30</del>	\$ <del>6.25</del>	\$ <del>3.30</del>
2005	\$ 1.80	\$ 5.55	\$ 3.20
2004	\$ 1.85	\$ 5.15	\$ 3.15
2003	\$ 2.45	\$ 7.20	\$ 3.20
2002	\$ 2.50	\$ 5.45	\$ 3.20
2001	\$ 2.00	\$ 4.40	\$ 2.50
2000	\$ 2.00	\$ 4.80	\$ 2.05



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**ADJUSTED CROP PRICES IN MODEL**

<u>Tax Year</u>	<u>CORN</u>	<u>SOYBEANS</u>	<u>WHEAT</u>
2014	\$ 4.48	\$ 10.13	\$ 5.16
2013	\$ 3.91	\$ 8.98	\$ 4.54
2012	\$ 3.19	\$ 7.74	\$ 3.98
2011	\$ 2.89	\$ 7.22	\$ 3.64
2010	\$ 2.66	\$ 6.41	\$ 3.41
2009	\$ 2.29	\$ 5.60	\$ 3.05
2008	\$ 2.02	\$ 5.19	\$ 2.89
2007	\$ 1.96	\$ 4.89	\$ 2.64
2006	\$ 1.99	\$ 4.84	\$ 2.49
2005	\$ 2.06	\$ 5.12	\$ 2.49
2004	\$ 2.05	\$ 5.11	\$ 2.56
2003	\$ 2.11	\$ 5.34	\$ 2.69
2002	\$ 2.12	\$ 5.42	\$ 2.79
2001	\$ 2.25	\$ 5.74	\$ 2.95



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# Adjusted Crop Prices in the Model, 2011-2014

	<u>2011</u>	<u>2014</u>	<u>2011-14</u>	<u>2013-14</u>
<b>Corn</b>	\$2.89	\$4.48	\$1.59	\$0.57
			55.0%	14.6%
<b>Beans</b>	\$7.22	\$10.13	\$2.91	\$1.15
			+40.3%	12.8%
<b>Wheat</b>	\$3.64	\$5.16	\$1.52	\$0.62
			+41.8%	13.7%



# Non-Land Production Costs Base & Added Unit, 2011-2014

	<u>2011</u>	<u>2013</u>	<u>2014</u>	<u>2011-14</u>	<u>2013-14</u>	Variance
<b>Corn</b>	\$300.98	\$391.90	\$437.85	\$136.87	\$45.95	
+bu	\$0.84	\$1.04	\$1.18	\$0.34	\$0.14	
<b>Beans</b>	\$204.60	\$248.69	\$275.21	\$70.61	\$26.52	
+bu	\$0.77	\$1.12	\$1.27	\$0.50	\$0.15	
<b>Wheat</b>	\$192.94	\$230.62	\$255.48	\$62.54	\$24.86	
+bu	\$1.19	\$1.61	\$1.80	\$0.61	\$0.19	

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# Capitalization Rate

## TY 2011-2014

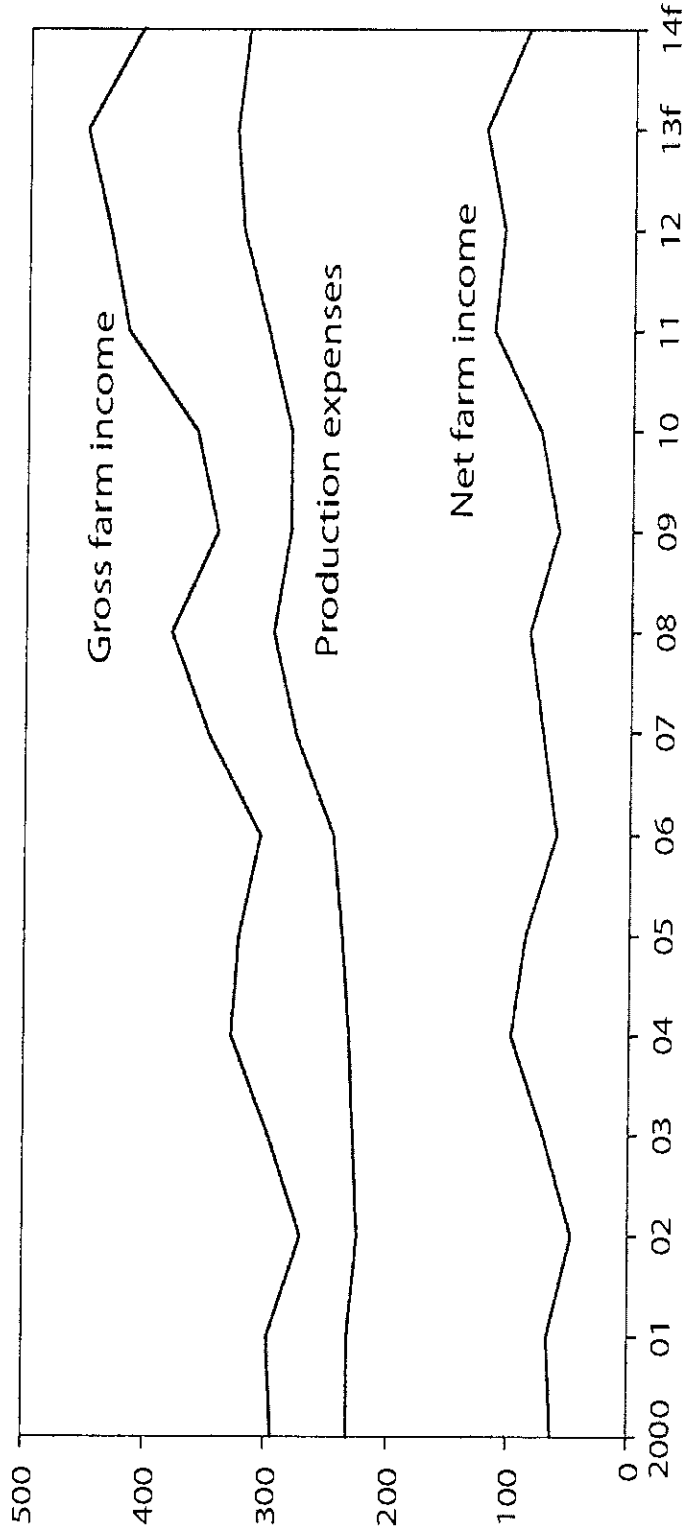
	<u>2011</u>	<u>2014</u>
Mortgage/Equity Ratio	60/40	60/40
Interest Rate, 15-Year Fixed		
Rate Mortgage*	7.00	5.89
Equity Rate**	7.30	5.25
Tax Additur	1.3	1.6
<b>Capitalization Rate</b>	<b>7.6%</b>	<b>6.2%</b>

\*Rate for a MultiFlex mortgage loan from Farm Credit Services.

\*\*Equity rate is the prime lending rate plus 2%.



Gross farm income, production expenses, and net farm income, inflation adjusted, 2000-14f  
 \$ billion (2009)



Note: Data for 2013 and 2014 are forecasts. Data as of February 11, 2014.  
 Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.



# 2014 Sample Calculation - Miami

SOIL: Miami Silt Loam  
 SLOPE, EROSION: 2-6, SLIGHT  
 DRAINAGE: Well  
 PROD. INDEX: 76

Adjusted Yield (bu/A)  
 X Crop Price/unit  
 = GROSS INCOME / ACRE

	<u>CORN</u>	<u>BEANS</u>	<u>WHEAT</u>
	139	47	75
	\$4.48	\$10.13	\$5.16
	\$622.72	\$476.11	\$387.00

Adjusted Yield (bu/A)  
 Base Yield  
 = YIELD ABOVE BASE  
 X Added Unit Cost  
 = ADDED UNIT COST/ACRE  
 + Base Yield Cost/Acre  
 = TOTAL NON-LAND PROD. COST

	139	47	75
	120	36	52
	19	11	23
	\$1.18	\$1.27	\$1.80
	\$22.42	\$13.97	\$41.40
	\$437.85	\$275.21	\$255.48
	\$460.27	\$289.18	\$296.88

NET RETURN / ACRE  
 X Cropping Pattern  
 = ROTATIONAL NET RETURN / ACRE  
 TOTAL ROTATIONAL NET RETURN

	\$162.45	\$186.93	\$90.12
	0.386	0.52	0.094
	\$62.71	\$97.20	\$8.47
	\$168.38		

Capitalization Rate

0.062

CAUV VALUE/ACRE: Net Return/Cap Rate

\$2,715.82

\$2,720



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# Minimum Use Values

	2008	2009	2010	2011	2012/13	2014
<b>Slopes 25% or Less</b>						
Cropland	\$100	\$170	\$200	\$300	\$350	\$350
Pasture	\$100	\$170	\$200	\$300	\$350	\$350
Woodland	\$100	\$100	\$120	\$200	\$230	\$230
<b>Slopes exceeding 25%</b>						
Pasture	\$100	\$100	\$100	\$200	\$230	\$230
Woodland	\$100	\$100	\$100	\$200	\$230	\$230





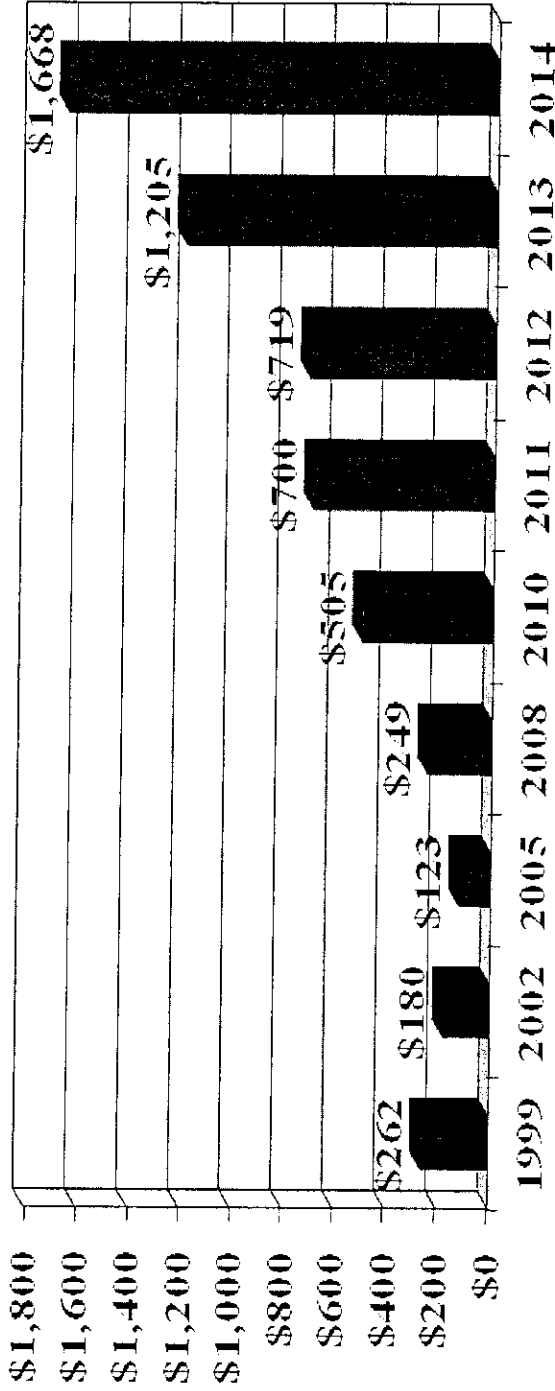
## Simple Average CAUV per Acre, by Productivity Index 2006-2014

PI	2006	2007	2008	2009	2010	2011	2012	2013	2014
0-49	\$ 108	\$ 100	\$ 100	\$ 176	\$ 200	\$ 300	\$ 350	\$ 350	\$ 350
50-59	134	100	100	200	214	328	362	516	700
60-69	125	123	188	435	436	632	610	1,218	1,778
70-79	241	283	431	746	845	1,126	1,147	1,958	2,728
80-89	465	521	708	1,059	1,278	1,641	1,717	2,743	3,718
90-99	675	747	973	1,368	1,601	2,017	2,128	3,310	4,428
100+	880	970	1,200	1,620	1,900	2,380	2,490	3,780	5,030
All Soils Average	\$ 177	\$ 181	\$ 249	\$ 459	\$ 505	\$ 700	\$ 719	\$1205	\$1668



# Cropland, Average CAUV

2005-2014  
\$1,000,000



# Average CAUV and Ohio Cropland Value - USDA

USDA, National Agricultural Statistics Service, 2013

