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## 2009 CURRENT AGRICULTURAL USE VALUE OF LAND TABLES

### EXPLANATION OF THE CALCULATION OF VALUES FOR VARIOUS SOIL MAPPING UNITS FOR TAX YEAR 2009

The annual current agricultural use values of land are calculated by the capitalization of typical net income from agricultural products assuming typical management, cropping and land use patterns, and yields for given types of soils. The necessary information is available for approximately 3500 map units, which are the soils with slopes less than 25 percent. The information used for a capitalized net income approach is as follows:

YIELD INFORMATION  
CROPPING PATTERNS  
CROP PRICES  
NON-LAND PRODUCTION COSTS  
CAPITALIZATION RATE

Each of these factors is explained below.

#### A. YIELD INFORMATION

For each of the soil mapping units, data regarding typical yields of each of the four major field crops (corn, soybeans, wheat and hay) were last published in 1984. In order to reflect more current, accurate yields, those yields of record have been updated by a factor based on the ten years of yield information most recently published by the Ohio Department of Agriculture. For tax year 2009, the data used was from calendar years 1998-2007. The factor for each crop was computed by averaging the ten years of yield data and dividing that average by the overall 1984 yield for that crop published by the Ohio Department of Agriculture. This factor was then applied to the 1984 crop yield of record for each mapping unit.

#### B. CROPPING PATTERNS

The cropping pattern for each map unit was determined by the slope of that unit with two exceptions. The exceptions are as follows:

- (1) Soil map units with a productivity index of 55 or less were assumed to be most profitably used as pasture. Therefore, we used a cropping pattern of 100% hay for these soils.
- (2) We used a pattern of 50% corn and 50% soybeans for organic soil map units.

All other soil map units were assigned a cropping pattern according the following schedule.

| <u>% Slope</u>  | <u>Corn</u> | <u>Soybeans</u> | <u>Wheat</u> | <u>Hay</u> |
|---|-------------|-----------------|--------------|------------|
| 0-1, 0-2, 0-3, 0-4, 0-5, 1-3, 1-4, 1-5 .....  | 35%         | 45%             | 15%          | 5%         |
| 0-6, 0-8, 0-10, 1-6, 1-7, 1-8, 2-4, 2-5,<br>2-6, 2-8, 3-6, 3-8 .....                                      | 35%         | 37%             | 15%          | 13%        |
| 0-15, 1-15, 2-12, 3-10, 3-12, 3-15, 4-10,<br>4-12, 5-10, 5-15, 6-12, 6-15, 7-15, 8-15.....                | 35%         | 20%             | 20%          | 25%        |
| 5-20, 6-18, 6-20, 8-20, 8-25, 9-18, 10-15, 10-20,<br>10-25, 12-18, 12-20, 12-25, 15-20, 15-25, 18-25..... | 20%         | -               | 10%          | 70%        |

### C. CROP PRICE INFORMATION

The crop prices used for the four field crops are five-year weighted average prices. Crop price data were collected for seven years and the highest and lowest annual prices were dropped and the average was calculated using the remaining five years' data. The prices were weighted based on the statewide production for each year. For this calculation, the seven-year period is 2001 through 2007. The table below shows average weighted prices for this period as well as the weighted prices for the three previous calculations. Each weighted price was reduced by 5% to allow for management and mixed hay was reduced by an additional 15% to account for harvesting loss.

|           |      | <b>TY2006</b> | <b>TY2007</b> | <b>TY2008</b> | <b>TY2009</b> |
|-----------|------|---------------|---------------|---------------|---------------|
|           |      | 1998          | 1999          | 2000          | 2001          |
|           |      | <u>2004</u>   | <u>2005</u>   | <u>2006</u>   | <u>2007</u>   |
| Corn      | @bu  | \$1.99        | \$1.96        | \$2.02        | \$2.29        |
| Soybeans  | @bu  | 4.84          | 4.89          | 5.19          | 5.60          |
| Wheat     | @bu  | 2.49          | 2.64          | 2.89          | 3.05          |
| Hay-Mixed | @ton | 75.54         | 76.66         | 79.80         | 86.18         |
| Hay-Grass | @ton | 59.51         | 61.95         | 64.77         | 70.69         |

The annual production and price per unit for each of these crops for the 2001 through 2007 period are shown in Exhibit A (see page 5).

Two types of hay are used based on slopes and the productivity of the soil. The mixed hay is for lower sloped soils and higher producing soils. The grass hay is for higher slopes and less productive soils found predominantly in southeastern Ohio.

### D. NON-LAND PRODUCTION COSTS

Data on crop production costs were used to estimate average non-land production costs. The data were extracted from the Ohio Crop Enterprise Budget prepared by The Ohio State University Department of Agricultural, Environmental and Development Economics for 2002-2008, inclusive. Again, data were collected for the seven-year period and the highest and lowest costs for each category were eliminated from the array. Five-year average costs per unit of specific non-land production cost items were computed from the remaining data as shown in Exhibit B-1 (see page 6 and 7).

The budgets were computed for each crop at a base yield equal to the lowest yield reported and for each additional unit above the base yield based on information from the Ohio Crop Budgets (see Exhibits B-2 through Exhibit B-5, pages 8-11).

The computed 5 year average non-land production costs for tax year 2009 are summarized below and compared with the costs used for tax year 2008 and 2006 tables:

| <u>Crop</u>          | <u>Tax Year</u> | <u>Base Yield</u> | <u>Base Cost</u> | <u>Additional Cost Per Unit</u> |
|----------------------|-----------------|-------------------|------------------|---------------------------------|
| Corn                 | 2009            | 117 bu            | \$264.12         | \$ 0.72                         |
|                      | 2008            |                   | 242.39           | 0.90                            |
|                      | 2006            |                   | 232.83           | 0.92                            |
| Soybeans             | 2009            | 36 bu             | \$175.21         | \$ 0.57                         |
|                      | 2008            |                   | 174.44           | 0.50                            |
|                      | 2006            |                   | 167.50           | 0.49                            |
| Wheat - (Grain Only) | 2009            | 52 bu             | \$159.01         | \$ 0.86                         |
|                      | 2008            |                   | 156.68           | 0.84                            |
|                      | 2006            |                   | 151.98           | 0.87                            |
| Hay (All)            | 2009            | 2.5 ton           | \$131.89         | \$ 22.75                        |
|                      | 2008            |                   | 133.80           | 24.23                           |
|                      | 2006            |                   | 138.26           | 24.83                           |

#### E. CAPITALIZATION RATE:

We used the 5-year average Farm Credit Service interest rate of 7.06% assuming a 60% loan for a 15-year term, payable annually. We used a 5-year average interest rate of 7.65% for the 40 percent equity portion (see Exhibit C, page 12). A five percent appreciation over a period of 5 years is included to address the increase in farm land values due to the demand for additional land in an increasingly efficient operation.

The capitalization rate for typical Ohio farm land, not including real property market inflation, was computed by the Akerson mortgage-equity method as follows:

$$\begin{aligned}
 &60\% \text{ loan x annual debt service of } 0.110211 &= & 0.066127 \\
 &40\% \text{ Equity x equity yield rate of } .0765 &= & 0.0306 \\
 &\text{Less equity buildup for 5 years} \\
 &\% \text{ loan x } \% \text{ mortgage paid off x sinking fund factor at equity rate for 5 years.} \\
 &\quad (0.60) [1 - (7.004143/9.073498)] (0.172165) &= & -0.02356 \\
 &\text{Less 5\% appreciation times sinking fund factor} \\
 &\text{@ equity yield rate of} \\
 &\quad .05 \times 0.17165 &= & \underline{-0.00858} \\
 &\text{Capitalization Rate Before Taxes} &= & 0.064585 \\
 &\text{Rounded to Nearest 1/10 of 1\%} &= & 6.5\%
 \end{aligned}$$

For tax year 2007 the statewide average effective tax rate after application of the reduction factors, (Section 319.301 Ohio Revised Code), levied on agricultural property was 44.84 mills. The ten percent rollback authorized by Section 319.302 of the Code reduced this rate further to 40.34 mills. As a percent of market value the effective tax rate to be used in this year's capitalization formula is therefore 1.4%,  $(.35 \times 40.34)/1000$ .

1.4

Capitalization rate including R.E. taxes 7.9%

The 7.9% capitalization rate is the base rate for typical Ohio farmland.

#### F. CROPLAND VALUES

The current agricultural use cropland value equals the net return for the rotation acre of the soil map unit divided by the capitalization rate. The minimum value for cropland is \$170 per acre.

#### G. WOODLAND AND PASTURE VALUE OF SOILS

- 1.) The woodland value of soils with slopes of 25% or less was determined as follows:
  - a.) The woodland value equals the cropland value less the costs to convert the woodland to cropland. The conversion costs are as follows:
    - i.) Clearing - \$500 per acre for all soils
    - ii.) Drainage
      - a.) For excessively drained, well drained, moderately well drained, (E, W, MW) - No Cost
      - b.) For somewhat poorly drained, poorly drained, very poorly drained, saturated (SWP, P, VP) - \$500 for Tile Drainage
      - c.) A \$250 adjustment for surface drainage for the following soil series: Allis, Atkins, Blanchester, Bono, Canadice, Clermont, Condit, Conneaut, Darien, Delmar, Frenchtown, Fries, Ginat, Ilion, Latty, Lorain, McGuffey, Mill, Miner, Montgomery, Muskego, Pauling, Peoga, Piopolis, Purdy, Roselms, Sheffield, Swanton, Toledo, Trumbull, Valley, Wabash, Wabasha, Warners, Wayland, Willette, and Zipp
  - b.) The minimum value for woodland with slopes of 25% or less is \$100.
- 2.) The pasture value equals the following:
  - i.) Where soil map units listed in these tables are used for permanent pasture, the land should be valued as cropland unless clearing or drainage costs would be incurred in converting the land to cropland. If so, an appropriate deduction should be made for the capital investment necessary for the land to be tilled.
  - ii.) The minimum value for pasture is \$100.
- 3.) The minimum value for woodland and pasture with slopes greater than 25% is \$100.

## FIVE YEAR AVERAGE CROP PRICES FOR TAX YEAR 2009

Source: Ohio Agricultural Statistics Service and OSU Extension

|                                   | <u>year</u> | <u>production</u> | <u>price</u> | <u>value (1000s)</u> |
|-----------------------------------|-------------|-------------------|--------------|----------------------|
| <b>CORN</b>                       | 2001        | 437,460           | \$ 2.00      | 874,920              |
|                                   | 2002        | 252,560           | \$ 2.50      | 631,400              |
|                                   | 2003        | 478,920           | \$ 2.45      | 1,173,354            |
|                                   | 2004        | 491,380           | \$ 1.85      | 909,053              |
|                                   | 2005        | 464,750           | \$ 1.80      | 836,550              |
|                                   | 2006        | 470,640           | \$ 3.30      | 1,553,112            |
|                                   | 2007        | 541,500           | \$ 3.95      | 2,138,925            |
|                                   | Totals      |                   | 2,130,960    |                      |
| Weighted Avg. Price               |             |                   | \$ 2.41      |                      |
| After Management Allowance of 5%  |             |                   | \$ 2.29      |                      |
| <b>SOYBEANS</b>                   | 2001        | 187,780           | \$ 4.40      | 826,232              |
|                                   | 2002        | 141,300           | \$ 5.45      | 770,085              |
|                                   | 2003        | 162,640           | \$ 7.20      | 1,171,008            |
|                                   | 2004        | 207,740           | \$ 5.15      | 1,069,861            |
|                                   | 2005        | 201,600           | \$ 5.55      | 1,118,880            |
|                                   | 2006        | 217,140           | \$ 6.25      | 1,357,125            |
|                                   | 2007        | 194,110           | \$ 10.10     | 1,960,511            |
|                                   | Totals      |                   | 930,420      |                      |
| Weighted Avg. Price               |             |                   | \$ 5.90      |                      |
| After Management Allowance of 5%  |             |                   | \$ 5.60      |                      |
| <b>WHEAT</b>                      | 2001        | 60,300            | \$ 2.50      | 150,750              |
|                                   | 2002        | 50,220            | \$ 3.20      | 160,704              |
|                                   | 2003        | 68,000            | \$ 3.20      | 217,600              |
|                                   | 2004        | 55,180            | \$ 3.15      | 173,817              |
|                                   | 2005        | 58,930            | \$ 3.20      | 188,576              |
|                                   | 2006        | 65,280            | \$ 3.30      | 215,424              |
|                                   | 2007        | 45,990            | \$ 5.50      | 252,945              |
|                                   | Totals      |                   | 297,610      |                      |
| Weighted Avg. Price               |             |                   | \$ 3.21      |                      |
| After Management Allowance of 5%  |             |                   | \$ 3.05      |                      |
| <b>MIXED HAY</b>                  | 2001        | 4,275             | \$ 87.50     | 374,063              |
|                                   | 2002        | 3,750             | \$ 96.00     | 360,000              |
|                                   | 2003        | 3,400             | \$ 98.75     | 335,750              |
|                                   | 2004        | 3,232             | \$ 102.50    | 331,280              |
|                                   | 2005        | 3,630             | \$ 87.00     | 315,810              |
|                                   | 2006        | 3,421             | \$ 126.25    | 431,901              |
|                                   | 2007        | 2,931             | \$ 160.71    | 471,041              |
|                                   | Totals      |                   | 18,078       |                      |
| Weighted Avg. Price               |             |                   | \$ 101.39    |                      |
| After Management Allowance of 15% |             |                   | \$ 86.18     |                      |
| <b>GRASS HAY</b>                  | 2001        | 4,275             | \$ 58.75     | 251,156              |
|                                   | 2002        | 3,750             | \$ 71.00     | 266,250              |
|                                   | 2003        | 3,400             | \$ 68.75     | 233,750              |
|                                   | 2004        | 3,232             | \$ 73.67     | 238,101              |
|                                   | 2005        | 3,630             | \$ 71.25     | 258,638              |
|                                   | 2006        | 3,421             | \$ 87.83     | 300,466              |
|                                   | 2007        | 2,931             | \$ 116.00    | 339,996              |
|                                   | Totals      |                   | 17,433       |                      |
| Weighted Avg. Price               |             |                   | \$ 74.41     |                      |
| After Management Allowance of 5%  |             |                   | \$ 70.69     |                      |

## Non-Land Production Costs

### Determination of the 5 Year Average for Use in Computing Crop Budgets Tax year 2009

Source: Ohio Crop Enterprise Budgets

| ITEM              |               | UNITS | 2002     | 2003     | 2004     | 2005     | 2006     | 2007     | 2008     | 5 yr. Avg. |         |
|-------------------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|------------|---------|
| SEED              | CORN          | 1000k | \$4.40   | \$1.10   | \$1.10   | \$1.10   | \$1.13   | \$1.16   | \$2.05   | \$1.12     |         |
|                   | SOYBEANS      | 1000s | \$0.40   | \$0.10   | \$0.10   | \$0.12   | \$0.21   | \$0.21   | \$0.23   | \$0.15     |         |
|                   | WHEAT         | 1000s | \$0.04   | \$0.01   | \$0.01   | \$0.01   | \$0.01   | \$0.01   | \$0.02   | \$0.01     |         |
|                   | HAY           | 100lb | \$450.00 | \$150.00 | \$150.00 | \$175.00 | \$175.00 | \$175.00 | \$175.00 | \$165.00   |         |
| FERTILIZER        | N Corn        |       | \$0.24   | \$0.24   | \$0.24   | \$0.26   | \$0.34   | \$0.29   | \$0.49   | \$0.27     |         |
|                   | N Wheat/Hay   |       | \$0.24   | \$0.24   | \$0.24   | \$0.26   | \$0.34   | \$0.36   | \$0.74   | \$0.29     |         |
|                   | P2O5          |       | \$0.24   | \$0.24   | \$0.24   | \$0.30   | \$0.31   | \$0.31   | \$0.87   | \$0.28     |         |
|                   | K2O           |       | \$0.13   | \$0.13   | \$0.13   | \$0.18   | \$0.21   | \$0.20   | \$0.48   | \$0.17     |         |
|                   | LIME          |       | \$15.00  | \$42.00  | \$12.00  | \$22.00  | \$22.00  | \$22.00  | \$23.50  | \$18.60    |         |
| ESTABLISHMENT     | (OVER 5 YRS.) |       | \$19.00  | \$19.00  | \$19.00  | \$19.00  | \$19.00  | \$49.00  | \$44.41  | \$19.00    |         |
| CHEMICALS         | CORN          |       | \$20.00  | \$22.00  | \$22.00  | \$24.00  | \$24.42  | \$24.42  | \$26.86  | \$23.37    |         |
|                   | SOYBEANS      |       | \$20.00  | \$26.00  | \$26.00  | \$39.00  | \$21.10  | \$21.10  | \$21.10  | \$23.06    |         |
|                   | WHEAT         |       | \$7.00   | \$7.00   | \$7.00   | \$7.00   | \$6.86   | \$6.86   | \$7.55   | \$6.97     |         |
| FUEL, OIL, GREASE | CORN          | -117  | \$7.00   | \$7.00   | \$7.00   | \$9.00   | \$10.58  | \$9.61   | \$48.87  | \$8.64     |         |
|                   |               | -150  | \$7.00   | \$7.00   | \$7.00   | \$9.00   | \$10.58  | \$9.61   | \$48.87  | \$8.64     |         |
|                   |               | -181  | \$7.00   | \$7.00   | \$7.00   | \$9.00   | \$10.58  | \$9.61   | \$48.87  | \$8.64     |         |
|                   | SOYBEANS      | -36   | \$5.00   | \$5.00   | \$5.00   | \$7.00   | \$7.67   | \$6.97   | \$43.63  | \$6.33     |         |
|                   |               | -46   | \$5.00   | \$5.00   | \$5.00   | \$7.00   | \$7.67   | \$6.97   | \$43.63  | \$6.33     |         |
|                   |               | -56   | \$5.00   | \$5.00   | \$5.00   | \$7.00   | \$7.67   | \$6.97   | \$43.63  | \$6.33     |         |
|                   | WHEAT         | -52   | \$5.00   | \$5.00   | \$5.00   | \$6.00   | \$8.20   | \$7.46   | \$44.54  | \$6.33     |         |
|                   |               | -67   | \$5.00   | \$5.00   | \$5.00   | \$6.00   | \$8.20   | \$7.46   | \$44.54  | \$6.33     |         |
|                   |               | -82   | \$5.00   | \$5.00   | \$5.00   | \$6.00   | \$8.20   | \$7.46   | \$44.54  | \$6.33     |         |
|                   | HAY           | -2.50 | \$6.00   | \$7.00   | \$7.00   | \$11.00  | \$12.61  | \$11.46  | \$47.47  | \$9.81     |         |
|                   |               | -3.75 | \$6.00   | \$7.00   | \$7.00   | \$11.00  | \$12.61  | \$11.46  | \$47.47  | \$9.81     |         |
|                   |               | -5.00 | \$6.00   | \$7.00   | \$7.00   | \$11.00  | \$12.61  | \$11.46  | \$47.47  | \$9.81     |         |
|                   | REPAIRS       | CORN  | -117     | \$14.00  | \$40.00  | \$10.00  | \$12.00  | \$10.72  | \$10.66  | \$45.23    | \$11.48 |
|                   |               |       | -150     | \$14.00  | \$40.00  | \$10.00  | \$12.00  | \$10.72  | \$10.66  | \$45.23    | \$11.48 |
|                   |               |       | -181     | \$14.00  | \$40.00  | \$10.00  | \$12.00  | \$10.72  | \$10.66  | \$45.23    | \$11.48 |
| SOYBEANS          |               | -36   | \$12.00  | \$13.00  | \$13.00  | \$11.00  | \$7.80   | \$7.80   | \$10.59  | \$10.88    |         |
|                   |               | -46   | \$12.00  | \$13.00  | \$13.00  | \$11.00  | \$7.80   | \$7.80   | \$10.59  | \$10.88    |         |
|                   |               | -56   | \$12.00  | \$13.00  | \$13.00  | \$11.00  | \$7.80   | \$7.80   | \$10.59  | \$10.88    |         |
| WHEAT             |               | -52   | \$12.00  | \$11.00  | \$11.00  | \$11.00  | \$8.74   | \$8.71   | \$27.47  | \$10.74    |         |
|                   |               | -67   | \$12.00  | \$11.00  | \$11.00  | \$11.00  | \$8.74   | \$8.71   | \$27.47  | \$10.74    |         |
|                   |               | -82   | \$12.00  | \$11.00  | \$11.00  | \$11.00  | \$8.74   | \$8.71   | \$27.47  | \$10.74    |         |
| HAY               |               | -2.50 | \$20.00  | \$13.00  | \$13.00  | \$7.00   | \$16.13  | \$16.13  | \$18.30  | \$15.31    |         |
|                   |               | -3.75 | \$20.00  | \$13.00  | \$13.00  | \$7.00   | \$16.13  | \$16.13  | \$18.30  | \$15.31    |         |
|                   |               | -5.00 | \$20.00  | \$13.00  | \$13.00  | \$7.00   | \$16.13  | \$16.13  | \$18.30  | \$15.31    |         |

## Non-Land Production Costs

### Determination of the 5 Year Average for Use in Computing Crop Budgets

Tax year 2008

Source: Ohio Crop Enterprise Budgets

| ITEM                            |   | UNITS    | 2002    | 2003    | 2004    | 2005    | 2006    | 2007    | 2008    | 5 yr.<br>Avg. |        |
|---------------------------------|---|----------|---------|---------|---------|---------|---------|---------|---------|---------------|--------|
| MISCELLANEOUS                   | CORN  | -117     | \$12.00 | \$12.00 | \$12.00 | \$6.00  | \$6.00  | \$6.00  | \$6.00  | \$8.40        |        |
|                                 |   | -150     | \$13.00 | \$13.00 | \$13.00 | \$7.00  | \$7.00  | \$7.00  | \$7.00  | \$9.40        |        |
|                                 |   | -181     | \$14.00 | \$14.00 | \$14.00 | \$8.00  | \$8.00  | \$8.00  | \$8.00  | \$10.40       |        |
|                                 | SOYBEANS  | -36      | \$12.00 | \$12.00 | \$12.00 | \$7.00  | \$7.00  | \$7.00  | \$7.00  | \$9.00        |        |
|                                 |   | -46      | \$13.00 | \$13.00 | \$13.00 | \$7.00  | \$7.00  | \$7.00  | \$7.00  | \$9.40        |        |
|                                 |   | -56      | \$14.00 | \$14.00 | \$14.00 | \$7.00  | \$7.00  | \$7.00  | \$7.00  | \$9.80        |        |
|                                 | WHEAT   | -52      | \$12.00 | \$12.00 | \$12.00 | \$6.00  | \$6.00  | \$6.00  | \$6.00  | \$8.40        |        |
|                                 |   | -67      | \$13.00 | \$13.00 | \$13.00 | \$6.00  | \$6.00  | \$6.00  | \$6.00  | \$8.80        |        |
|                                 |   | -82      | \$14.00 | \$14.00 | \$14.00 | \$6.00  | \$6.00  | \$6.00  | \$6.00  | \$9.20        |        |
|                                 | HAY   | -2.50    | \$14.00 | \$14.00 | \$14.00 | \$4.00  | \$4.00  | \$4.00  | \$4.00  | \$8.00        |        |
|                                 |   | -3.75    | \$15.00 | \$15.00 | \$15.00 | \$5.00  | \$5.00  | \$5.00  | \$5.00  | \$9.00        |        |
|                                 |   | -5.00    | \$16.00 | \$16.00 | \$16.00 | \$6.00  | \$6.00  | \$6.00  | \$6.00  | \$10.00       |        |
|                                 | MISCELLANEOUS:<br>DRYING COST-(FUEL & ELECTRIC) | CORN     |         | \$0.18  | \$0.18  | \$0.18  | \$0.13  | \$0.15  | \$0.16  | \$0.11        | \$0.16 |
|                                 | TRUCKING COST:<br>FUEL ONLY                     | CORN     |         | \$0.03  | \$0.04  | \$0.04  | \$0.04  | \$0.06  | \$0.06  | \$0.09        | \$0.05 |
|                                 |   | SOYBEANS |         | \$0.03  | \$0.03  | \$0.03  | \$0.04  | \$0.06  | \$0.06  | \$0.09        | \$0.04 |
| WHEAT                           |   |          | \$0.03  | \$0.03  | \$0.03  | \$0.03  | \$0.06  | \$0.06  | \$0.09  | \$0.04        |        |
| INTEREST: ON SUBTOTALLED COST   |   |          | 9.00%   | 9.00%   | 9.00%   | 6.50%   | 8.00%   | 8.50%   | 9.00%   | 8.70%         |        |
| LABOR CHARGE                    | CORN  |          | \$28.80 | \$32.40 | \$32.40 | \$36.00 | \$36.00 | \$36.00 | \$48.60 | \$34.56       |        |
|                                 | SOYBEANS  |          | \$20.80 | \$23.40 | \$23.40 | \$20.00 | \$20.00 | \$20.00 | \$27.00 | \$21.52       |        |
|                                 | WHEAT   |          | \$16.00 | \$18.00 | \$18.00 | \$20.00 | \$20.00 | \$20.00 | \$27.00 | \$19.20       |        |
|                                 | HAY   |          | \$40.00 | \$45.00 | \$45.00 | \$30.00 | \$30.00 | \$30.00 | \$40.50 | \$37.10       |        |
| MACHINERY &<br>EQUIPMENT CHARGE | CORN  |          | \$56.07 | \$59.00 | \$59.00 | \$55.00 | \$52.85 | \$54.35 | \$65.07 | \$56.68       |        |
|                                 | SOYBEANS  |          | \$52.26 | \$54.00 | \$54.00 | \$47.00 | \$44.60 | \$46.56 | \$53.86 | \$50.74       |        |
|                                 | WHEAT   |          | \$51.36 | \$52.00 | \$52.00 | \$48.00 | \$48.51 | \$50.01 | \$56.74 | \$50.78       |        |
|                                 | HAY   |          | \$30.00 | \$31.00 | \$31.00 | \$32.00 | \$29.31 | \$29.31 | \$22.83 | \$30.12       |        |

| 2009 CORN BUDGET<br>conservation tillage |      |                  |                       |                        |                |                       |                       |                  |
|--|------|------------------|-----------------------|------------------------|----------------|-----------------------|-----------------------|------------------|
| CORN                                     |      |                  |                       | INPUTS                 |                | 5 YR.<br>AVG.<br>COST | 5 YR. AVERAGE COST    |                  |
| ITEM                                     |      | UNITS            | BASE<br>117<br>BUSHEL | @ ADD.<br>33<br>BUSHEL |                |                       | BASE<br>117<br>BUSHEL | @ ADD.<br>BUSHEL |
| SEED:                                    |      | KERNELS (1000's) | 28                    | 0.13                   |                | \$1.12                | \$31.36               | \$0.15           |
| FERTILIZER:                              |      |                  |                       |                        |                |                       |                       |                  |
|  | N*   | LB.              | 128                   | 18                     |                | \$0.27                | \$34.56               | \$0.15           |
|  | P2O5 | LB.              | 43.3                  | 12.2                   |                | \$0.28                | \$12.12               | \$0.10           |
|  | K2O  | LB.              | 31.6                  | 8.9                    |                | \$0.17                | \$5.37                | \$0.05           |
|  | LIME | TON              | 0.25                  | 0                      |                | \$18.60               | \$4.65                | \$0.00           |
| CHEMICALS:                               |      |                  |                       |                        |                | \$23.37               | \$23.37               | \$0.00           |
| FUEL, OIL, GREASE                        |      |                  |                       |                        |                | \$8.64                | \$8.64                | \$0.00           |
| REPAIRS:                                 |      |                  |                       |                        |                | \$11.48               | \$11.48               | \$0.00           |
| MISCELLANEOUS:                           |      |                  |                       |                        |                | \$8.40                | \$8.40                | \$0.03           |
| DRYING: FUEL & ELECTRIC ONLY             |      |                  |                       | \$0.16                 |                | \$18.72               | \$18.72               | \$0.16           |
| TRUCKING: FUEL ONLY                      |      |                  |                       |                        |                | \$0.05                | \$5.85                | \$0.05           |
|  |      | SUBTOTAL         |                       |                        |                |                       | \$164.53              | \$0.68           |
| INTEREST: ON SUBTOTALLED COST            |      |                  | 8.7%/12 X 7 MOS       | 0.05                   | int x subtotal |                       | \$8.35                | \$0.03           |
| LABOR CHARGE:                            |      |                  |                       |                        |                | \$34.56               | \$34.56               | \$0.00           |
| MACHINERY & EQUIPMENT CHARGE:            |      |                  |                       |                        |                | \$56.68               | \$56.68               | \$0.00           |
|  |      | TOTALS           |                       |                        |                |                       | \$264.12              | \$0.72           |



| 2009 SOYBEAN BUDGET<br>NO TILLAGE PRACTICES |               |                 |                |                       |                    |               |  |
|---|---------------|-----------------|----------------|-----------------------|--------------------|---------------|--|
| ITEM  | UNITS         | INPUTS          |                | 5 YR.<br>AVG.<br>COST | 5 YR. AVERAGE COST |               |  |
|   |               | BASE<br>36      | @ ADD.<br>10   |                       | BASE<br>36         | @ ADD.        |  |
|   |               | <u>BUSHEL</u>   | <u>BUSHEL</u>  |                       | <u>BUSHEL</u>      | <u>BUSHEL</u> |  |
| SEED:                                       | seeds (1000s) | 180.0           | 0              | \$0.15                | \$27.00            | \$0.00        |  |
| FERTILIZER:                                 |               |                 |                |                       |                    |               |  |
|   | N LB.         | 0               | 0              | \$0.27                | \$0.00             | \$0.00        |  |
|   | P2O5 LB.      | 28.8            | 8              | \$0.28                | \$8.06             | \$0.22        |  |
|   | K2O LB.       | 50.4            | 14             | \$0.17                | \$8.57             | \$0.24        |  |
|   | LIME TON      | 0.25            | 0              | \$18.60               | \$4.65             | \$0.00        |  |
| CHEMICALS:                                  |               |                 |                | \$23.06               | \$23.06            | \$0.00        |  |
| FUEL, OIL, GREASE                           |               |                 |                | \$6.33                | \$6.33             | \$0.00        |  |
| REPAIRS:                                    |               |                 |                | \$10.88               | \$10.88            | \$0.00        |  |
| MISCELLANEOUS:                              |               |                 |                | \$9.00                | \$9.00             | \$0.04        |  |
| TRUCKING: FUEL ONLY                         |               |                 |                | \$0.05                | \$1.80             | \$0.05        |  |
|   | SUBTOTAL      |                 |                |                       | \$99.35            | \$0.55        |  |
|   |               | 8.7%/12 X 5 MOS |                |                       |                    |               |  |
| INTEREST: ON SUBTOTALLED COST               |               | 0.0363          | int x subtotal |                       | \$3.60             | \$0.02        |  |
| LABOR CHARGE:                               |               |                 |                | \$21.52               | \$21.52            | \$0.00        |  |
| MACHINERY & EQUIPMENT CHARGE:               |               |                 |                | \$50.74               | \$50.74            | \$0.00        |  |
|   | TOTALS        |                 |                |                       | \$175.21           | \$0.57        |  |

| 2009 WHEAT BUDGET             |               |                 |                  |                |                 |                    |               |
|-------------------------------|---------------|-----------------|------------------|----------------|-----------------|--------------------|---------------|
| Wheat                         |               |                 |                  |                |                 |                    |               |
|                               |               |                 |                  | INPUTS         | 5 YR. AVG. COST | 5 YR. AVERAGE COST |               |
| ITEM                          | UNITS         | BASE 52 BUSHELS | @ ADD. 15 BUSHEL |                |                 | BASE 52 BUSHELS    | @ ADD. BUSHEL |
| SEED:                         | seeds (1000s) | 1,400           | 0                |                | \$0.01          | \$16.80            | \$0.00        |
| FERTILIZER:                   |               |                 |                  |                |                 |                    |               |
|                               | N             | LB.             | 43.5             | 26.3           | \$0.29          | \$12.62            | \$0.51        |
|                               | P2O5          | LB.             | 32.8             | 9.4            | \$0.28          | \$9.18             | \$0.18        |
|                               | K2O           | LB.             | 39.2             | 5.6            | \$0.17          | \$6.66             | \$0.06        |
|                               | LIME          | TON             | 0.25             | 0              | \$18.60         | \$4.65             | \$0.00        |
| CHEMICALS:                    |               |                 |                  |                | \$6.97          | \$6.97             | \$0.00        |
| FUEL, OIL, GREASE             |               |                 |                  |                | \$6.33          | \$6.33             | \$0.00        |
| REPAIRS:                      |               |                 |                  |                | \$10.74         | \$10.74            | \$0.00        |
| MISCELLANEOUS:                |               |                 |                  |                | \$8.40          | \$8.40             | \$0.03        |
| TRUCKING: FUEL ONLY           |               |                 |                  |                | \$0.04          | \$1.80             | \$0.04        |
|                               | SUBTOTAL      |                 |                  |                |                 | \$84.15            | \$0.82        |
|                               |               |                 | 8.7%/12 X 8 MOS  |                |                 |                    |               |
| INTEREST: ON SUBTOTALLED COST |               | 0.0580          |                  | int x subtotal |                 | \$4.88             | \$0.05        |
| LABOR CHARGE:                 |               |                 |                  |                | \$19.20         | \$19.20            | \$0.00        |
| MACHINERY & EQUIPMENT CHARGE: |               |                 |                  |                | \$50.78         | \$50.78            | \$0.00        |
|                               | TOTALS        |                 |                  |                |                 | \$159.01           | \$0.86        |

| 2009 HAY BUDGET               |                       |                 |                |                       |                    |                |            |
|-------------------------------|-----------------------|-----------------|----------------|-----------------------|--------------------|----------------|------------|
| ITEM                          | UNITS                 | INPUTS          |                | 5 YR.<br>AVG.<br>COST | 5 YR. AVERAGE COST |                |            |
|                               |                       | BASE            | @ ADD.         |                       | BASE COST          | @ ADD.<br>COST |            |
|                               |                       | 2.5<br>TON      | 1.25<br>TON    |                       |                    |                | 2.5<br>TON |
| SEED:                         | 1(160.00/100)*10<br>5 | 10              |                |                       | \$3.20             | \$0.00         |            |
|                               | PRORATED OVER 5 YRS.  |                 |                |                       |                    |                |            |
| FERTILIZER:                   |                       |                 |                |                       |                    |                |            |
|                               | N LB.                 | 0               | 65             | \$0.27                | \$0.00             | \$14.04        |            |
|                               | P2O5 LB.              | 25              | 15             | \$0.28                | \$7.00             | \$3.36         |            |
|                               | K2O LB.               | 60              | 25             | \$0.17                | \$10.20            | \$3.40         |            |
|                               | LIME TON              | 0.25            | 0              | \$18.60               | \$4.65             | \$0.00         |            |
| ESTABLISHMENT:                | avg \$/5 yrs.         |                 |                | \$19.00               | \$3.80             | \$0.00         |            |
| FUEL, OIL, GREASE             |                       |                 |                | \$9.81                | \$9.81             | \$0.20         |            |
| REPAIRS:                      |                       |                 |                | \$15.31               | \$15.31            | \$0.00         |            |
| MISCELLANEOUS:                |                       |                 |                | \$8.00                | \$8.00             | \$0.80         |            |
|                               | SUBTOTAL              |                 |                |                       | \$61.97            | \$21.80        |            |
|                               |                       | 8.7%/12 X 6 MOS |                |                       |                    |                |            |
| INTEREST: ON SUBTOTALLED COST |                       | 0.0435          | int x subtotal |                       | \$2.70             | \$0.95         |            |
| LABOR CHARGE:                 |                       |                 |                | \$37.10               | \$37.10            | \$0.00         |            |
| MACHINERY & EQUIPMENT CHARGE: |                       |                 |                | \$30.12               | \$30.12            | \$0.00         |            |
|                               | TOTALS                |                 |                |                       | \$131.89           | \$22.75        |            |

1/2/2009

**RATES USED IN CAPITALIZATION RATE  
2003-2009**

| <b>TAX YEAR</b> | <b>INTEREST RATE</b> | <b>EQUITY RATE</b> |
|-----------------|----------------------|--------------------|
| 2003            | <del>6.40</del>      | 6.25               |
| 2004            | 7.00                 | 6.00               |
| 2005            | 7.10                 | 7.25               |
| 2006            | <del>7.70</del>      | 9.50               |
| 2007            | 7.70                 | <del>10.25</del>   |
| 2008            | 6.95                 | 9.25               |
| 2009            | 6.55                 | <del>5.25</del>    |
|                 | 7.06                 | 7.65               |

\* interest rate is based on a 15 year adjustable multi flex loan with the rate coming from [www.e-farmcredit.com](http://www.e-farmcredit.com) / today's rates

\*\* equity rate is prime plus two per cent at [www.bankrate.com](http://www.bankrate.com) from Wall Street Journal survey

**ACTUAL CAPITALIZATION RATES USED IN CALCULATION  
2002-2008**

| <b>TAX YEAR</b> | <b>CAPITALIZATION RATE</b> |
|-----------------|----------------------------|
| 2003            | 9.2%                       |
| 2004            | 9.0%                       |
| 2005            | 8.6%                       |
| 2006            | 8.5%                       |
| 2007            | 8.4%                       |
| 2008            | 8.3%                       |
| 2009            | 7.9%                       |

<http://www.phila-ai.com/phila-ai/tools/ellwood.cfm>

# Yield Changes for Crops--2009

Ohio Agricultural Statistics Service

2007 Ohio Dept. of Agriculture Annual Report and Statistics--Table 5

| <u>Year</u>                             | <u>Corn</u>        | <u>Soybeans</u>    | <u>Wheat</u>       | <u>Oats</u>       | <u>Hay</u>        |
|---|--------------------|--------------------|--------------------|-------------------|-------------------|
| 1984                                    | 118                | 36.5               | 44                 | 63                | 2.81              |
| 1985                                    | 127                | 41.5               | 62                 | 85                | 3.17              |
| 1986                                    | 128                | 40.5               | 46                 | 76                | 2.95              |
| 1987                                    | 120                | 37                 | 58                 | 70                | 3.05              |
| 1988                                    | 85                 | 27                 | 50                 | 45                | 2.18              |
| 1989                                    | 118                | 31.5               | 51                 | 63                | 2.8               |
| 1990                                    | 121                | 39                 | 59                 | 70                | 3.3               |
| 1991                                    | 96                 | 36                 | 49                 | 60                | 2.42              |
| 1992                                    | 143                | 40                 | 53                 | 71                | 3.25              |
| 1993                                    | 110                | 38                 | 52                 | 60                | 2.78              |
| 1994                                    | 139                | 44                 | 58                 | 56                | 3.43              |
| 1995                                    | 121                | 38                 | 61                 | 69                | 3.23              |
| 1996                                    | 111                | 35                 | 39                 | 57                | 2.83              |
| 1997                                    | 134                | 44                 | 63                 | 78                | 3.08              |
| 1998                                    | 141                | 44                 | 64                 | 65                | 3.01              |
| 1999                                    | 126                | 36                 | 70                 | 70                | 2.42              |
| 2000                                    | 147                | 42                 | 72                 | 76                | 3.35              |
| 2001                                    | 138                | 41                 | 67                 | 73                | 2.88              |
| 2002                                    | 89                 | 32                 | 62                 | 62                | 2.58              |
| 2003                                    | 156                | 38.5               | 68                 | 66                | 2.94              |
| 2004                                    | 158                | 47                 | 62                 | 63                | 2.72              |
| 2005                                    | 143                | 45                 | 71                 | 60                | 3.03              |
| 2006                                    | 159                | 47                 | 68                 | 75                | 2.83              |
| 2007                                    | 150                | 47                 | 63                 | 62                | 2.55              |
| 1984                                    | 118                | 36.5               | 44                 | 63                | 2.81              |
| avg.<br>1998-2007                       | 140.7              | 42.0               | 66.7               | 67.2              | 2.83              |
| % change 1984 vs. 1998-2007<br>increase | 1.192373<br>19.24% | 1.150685<br>15.07% | 1.515909<br>51.59% | 1.066667<br>6.67% | 1.007117<br>0.71% |

\*\*for use in TY 2009 CAUV tables

## 2009 CAUV SAMPLE CALCULATION

**SOIL:** Millgrove, Silt Loam  
**SLOPE:** 0-2  
**EROSION:** Slight  
**DRAINAGE:** Very poorly  
**PROD. INDEX:** 100

|                                       | <u>CORN</u> | <u>BEANS</u>   | <u>WHEAT</u> | <u>HAY</u> |
|---------------------------------------|-------------|----------------|--------------|------------|
| <b>Current PI DAT yield</b>           | 144         | 52             | 64           | 6          |
| <b>% increased yield</b>              | 1.192373    | 1.150685       | 1.515909     | 1.007117   |
| <b>YIELD / ACRE</b>                   | 172         | 60             | 97           | 6.0        |
| <b>X PRICE / UNIT</b>                 | \$2.29      | \$5.60         | \$3.05       | \$86.18    |
| <b>= GROSS INCOME / ACRE</b>          | \$393.88    | \$336.00       | \$295.85     | \$517.08   |
| <b>YIELD / ACRE</b>                   | 172         | 60             | 97           | 6.0        |
| <b>BASE YIELD</b>                     | 117         | 36             | 52           | 2.5        |
| <b>= YIELD ABOVE BASE</b>             | 55          | 24             | 45           | 3.5        |
| <b>X ADDED UNIT COST</b>              | \$0.72      | \$0.57         | \$0.86       | \$22.75    |
| <b>ADDED UNIT COST / ACRE</b>         | \$39.60     | \$13.68        | \$38.70      | \$79.63    |
| <b>BASE YIELD COST</b>                | \$264.12    | \$175.21       | \$159.01     | \$131.89   |
| <b>= TOTAL NON-LAND PROD. COST</b>    | \$303.72    | \$188.89       | \$197.71     | \$211.52   |
| <b>NET RETURN / ACRE</b>              | \$90.16     | \$147.11       | \$98.14      | \$305.57   |
| <b>X CROPPING PATTERN</b>             | 0.35        | 0.45           | 0.15         | 0.05       |
| <b>= ROTATIONAL NET RETURN / ACRE</b> | \$ 31.56    | \$ 66.20       | \$ 14.72     | \$ 15.28   |
| <b>TOTAL ROTATIONAL NET RETURN</b>    | \$ 127.75   |                |              |            |
| <b>BASE CAP RATE</b>                  | 0.079       |                |              |            |
| <b>CAUV LAND VALUE</b>                | \$1,617.15  | SAY \$1,620.00 |              |            |

## 2006 CAUV SAMPLE CALCULATION

**SOIL:** Millgrove, Silt Loam  
**SLOPE:** 0-2  
**EROSION:** Slight  
**DRAINAGE:** Very Poorly  
**PROD. INDEX:** 100

|                                       | <u>CORN</u> | <u>BEANS</u> | <u>WHEAT</u> | <u>HAY</u> |
|---------------------------------------|-------------|--------------|--------------|------------|
| <b>Current PI DAT yield</b>           | 144         | 52           | 64           | 6          |
| <b>% increased yield</b>              | 1.119492    | 1.089041     | 1.427273     | 1.033425   |
| <b>YIELD / ACRE</b>                   | 161         | 57           | 91           | 6.2        |
| <b>X PRICE / UNIT</b>                 | \$1.99      | \$4.84       | \$2.49       | \$75.54    |
| <b>= GROSS INCOME / ACRE</b>          | \$320.39    | \$275.88     | \$226.59     | \$468.35   |
| <b>YIELD / ACRE</b>                   | 161         | 57           | 91           | 6.2        |
| <b>BASE YIELD</b>                     | 100         | 30           | 50           | 2          |
| <b>= YIELD ABOVE BASE</b>             | 61          | 27           | 41           | 4.2        |
| <b>X ADDED UNIT COST</b>              | \$0.92      | \$0.49       | \$0.87       | \$24.83    |
| <b>ADDED UNIT COST / ACRE</b>         | \$56.12     | \$13.23      | \$35.67      | \$104.29   |
| <b>BASE YIELD COST</b>                | \$232.83    | \$167.50     | \$151.98     | \$138.26   |
| <b>= TOTAL NON-LAND PROD. COST</b>    | \$288.95    | \$180.73     | \$187.65     | \$242.55   |
| <b>NET RETURN / ACRE</b>              | \$31.44     | \$95.15      | \$38.94      | \$225.80   |
| <b>X CROPPING PATTERN</b>             | 0.35        | 0.45         | 0.15         | 0.05       |
| <b>= ROTATIONAL NET RETURN / ACRE</b> | \$ 11.00    | \$ 42.82     | \$ 5.84      | \$ 11.29   |
| <b>TOTAL ROTATIONAL NET RETURN</b>    | \$ 70.95    |              |              |            |
| <b>BASE CAP RATE</b>                  | 0.085       |              |              |            |
| <b>X MANAGEMENT FACTOR</b>            | 0.95        |              |              |            |
| <b>= ADJUSTED CAPITALIZATION RATE</b> | 0.08075     |              |              |            |
| <b>CAUV LAND VALUE</b>                | \$ 878.67   | SAY          | \$ 880.00    |            |

## 2009 CAUV SAMPLE CALCULATION

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

|                                       | <u>CORN</u> | <u>BEANS</u> | <u>WHEAT</u> | <u>HAY</u> |
|---------------------------------------|-------------|--------------|--------------|------------|
| <b>PI DAT yield/acre</b>              | 108         | 38           | 50           | 4.6        |
| <b>% increased yield</b>              | 1.192373    | 1.150685     | 1.515909     | 1.007117   |
| <b>adjusted yield/acre</b>            | 129         | 44           | 76           | 4.6        |
| <b>X PRICE / UNIT</b>                 | \$2.29      | \$5.60       | \$3.05       | \$86.18    |
| <b>= GROSS INCOME / ACRE</b>          | \$295.41    | \$246.40     | \$231.80     | \$396.43   |
| <b>YIELD / ACRE</b>                   | 129         | 44           | 76           | 4.6        |
| <b>BASE YIELD</b>                     | 117         | 36           | 52           | 2.5        |
| <b>= YIELD ABOVE BASE</b>             | 12          | 8            | 24           | 2.1        |
| <b>X ADDED UNIT COST</b>              | \$0.72      | \$0.57       | \$0.86       | \$22.75    |
| <b>ADDED UNIT COST / ACRE</b>         | \$8.64      | \$4.56       | \$20.64      | \$47.78    |
| <b>BASE YIELD COST</b>                | \$264.12    | \$175.21     | \$159.01     | \$131.89   |
| <b>= TOTAL NON-LAND PROD. COST</b>    | \$272.76    | \$179.77     | \$179.65     | \$179.67   |
| <b>NET RETURN / ACRE</b>              | \$22.65     | \$66.63      | \$52.15      | \$216.76   |
| <b>X CROPPING PATTERN</b>             | 0.35        | 0.37         | 0.15         | 0.13       |
| <b>= ROTATIONAL NET RETURN / ACRE</b> | \$7.93      | \$24.65      | \$7.82       | \$28.18    |
| <b>TOTAL ROTATIONAL NET RETURN</b>    | \$68.58     |              |              |            |
| <b>BASE CAP RATE</b>                  | 0.079       |              |              |            |
| <b>CAUV LAND VALUE</b>                | \$868.13    | SAY          | \$ 870.00 *  |            |

\* This soil has been manually changed to \$820.



## 2006 CAUV SAMPLE CALCULATION

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

|                                       | <u>CORN</u> | <u>BEANS</u> | <u>WHEAT</u> | <u>HAY</u> |
|---------------------------------------|-------------|--------------|--------------|------------|
| <b>Current PI DAT yield</b>           | 108         | 38           | 50           | 4.6        |
| <b>% increased yield</b>              | 1.119492    | 1.089041     | 1.427273     | 1.0334252  |
| <b>YIELD / ACRE</b>                   | 121         | 41           | 71           | 4.8        |
| <b>X PRICE / UNIT</b>                 | \$1.99      | \$4.84       | \$2.49       | \$75.54    |
| <b>= GROSS INCOME / ACRE</b>          | \$240.79    | \$198.44     | \$176.79     | \$362.59   |
| <b>YIELD / ACRE</b>                   | 121         | 41           | 71           | 4.8        |
| <b>BASE YIELD</b>                     | 100         | 30           | 50           | 2          |
| <b>= YIELD ABOVE BASE</b>             | 21          | 11           | 21           | 2.8        |
| <b>X ADDED UNIT COST</b>              | \$0.92      | \$0.49       | \$0.87       | \$24.83    |
| <b>ADDED UNIT COST / ACRE</b>         | \$19.32     | \$5.39       | \$18.27      | \$69.52    |
| <b>BASE YIELD COST</b>                | \$232.83    | \$167.50     | \$151.98     | \$138.26   |
| <b>= TOTAL NON-LAND PROD. COST</b>    | \$252.15    | \$172.89     | \$170.25     | \$207.78   |
| <b>NET RETURN / ACRE</b>              | (\$11.36)   | \$25.55      | \$6.54       | \$154.81   |
| <b>X CROPPING PATTERN</b>             | 0.35        | 0.37         | 0.15         | 0.13       |
| <b>= ROTATIONAL NET RETURN / ACRE</b> | (\$3.98)    | \$9.45       | \$0.98       | \$20.13    |
| <b>TOTAL ROTATIONAL NET RETURN</b>    | \$26.58     |              |              |            |
| <b>BASE CAP RATE</b>                  | 0.085       |              |              |            |
| <b>X MANAGEMENT FACTOR</b>            | 1           |              |              |            |
| <b>= ADJUSTED CAPITALIZATION RATE</b> | 0.085       |              |              |            |
| <b>CAUV LAND VALUE</b>                | \$312.75    | SAY          | \$310.00     |            |

## CAUV Summary Values

6/19/2009  
TY 2006 final

| productivity index | no. of units | net return/acre |           |           | cropland value/acre |            |            |
|--------------------|--------------|-----------------|-----------|-----------|---------------------|------------|------------|
|                    |              | low             | high      | avg.      | low                 | high       | avg.       |
| 40-49              | 603          | 0               | 33        | 4         | 100                 | 320        | 108        |
| 50-59              | 740          | 0               | 69        | 13        | 100                 | 420        | 133        |
| 60-69              | 1094         | 0               | 69        | 9         | 100                 | 340        | 125        |
| 70-79              | 803          | 0               | 42        | 20        | 100                 | 490        | 241        |
| 80-89              | 200          | 10              | 57        | 37        | 130                 | 710        | 465        |
| 90-99              | 36           | 44              | 72        | 54        | 540                 | 890        | 675        |
| 100+               | 6            | 71              | 71        | 71        | 880                 | 880        | 880        |
| <b>all regions</b> | <b>3482</b>  | <b>0</b>        | <b>72</b> | <b>14</b> | <b>100</b>          | <b>890</b> | <b>177</b> |

TY 2009 final

| productivity index | no. of units | net return/acre |            |           | cropland value/acre |             |            |
|--------------------|--------------|-----------------|------------|-----------|---------------------|-------------|------------|
|                    |              | low             | high       | avg.      | low                 | high        | avg.       |
| 40-49              | 600          | 0               | 78         | 33        | 170                 | 200         | 176        |
| 50-59              | 749          | 0               | 98         | 53        | 170                 | 330         | 200        |
| 60-69              | 1117         | 0               | 93         | 42        | 180                 | 930         | 435        |
| 70-79              | 798          | 19              | 89         | 60        | 240                 | 1100        | 746        |
| 80-89              | 206          | 57              | 109        | 84        | 720                 | 1390        | 1059       |
| 90-99              | 35           | 97              | 127        | 108       | 1230                | 1610        | 1368       |
| 100+               | 6            | 128             | 128        | 128       | 1620                | 1620        | 1620       |
| <b>all regions</b> | <b>3511</b>  | <b>0</b>        | <b>128</b> | <b>50</b> | <b>170</b>          | <b>1620</b> | <b>459</b> |

## CAUV Summary Values

6/19/2009

TY 2008 final

| productivity index | no. of units | net return/acre |           |           | cropland value/acre |             |            |
|--------------------|--------------|-----------------|-----------|-----------|---------------------|-------------|------------|
|                    |              | low             | high      | avg.      | low                 | high        | avg.       |
| 40-49              | 600          | 0               | 48        | 15        | 100                 | 100         | 100        |
| 50-59              | 749          | 0               | 87        | 29        | 100                 | 100         | 100        |
| 60-69              | 1117         | 0               | 87        | 21        | 100                 | 490         | 188        |
| 70-79              | 798          |                 | 61        | 36        | 100                 | 710         | 431        |
| 80-89              | 206          | 29              | 78        | 56        | 370                 | 990         | 708        |
| 90-99              | 35           | 67              | 95        | 76        | 850                 | 1200        | 973        |
| 100+               | 6            | 95              | 95        | 95        | 1200                | 1200        | 1200       |
| <b>all regions</b> | <b>3511</b>  | <b>0</b>        | <b>95</b> | <b>28</b> | <b>100</b>          | <b>1200</b> | <b>249</b> |

TY 2009 final

| productivity index | no. of units | net return/acre |            |           | cropland value/acre |             |            |
|--------------------|--------------|-----------------|------------|-----------|---------------------|-------------|------------|
|                    |              | low             | high       | avg.      | low                 | high        | avg.       |
| 40-49              | 600          | 0               | 78         | 33        | 170                 | 200         | 176        |
| 50-59              | 749          | 0               | 98         | 53        | 170                 | 330         | 200        |
| 60-69              | 1117         | 0               | 93         | 42        | 180                 | 930         | 435        |
| 70-79              | 798          | 19              | 89         | 60        | 240                 | 1100        | 746        |
| 80-89              | 206          | 57              | 109        | 84        | 720                 | 1390        | 1059       |
| 90-99              | 35           | 97              | 127        | 108       | 1230                | 1610        | 1368       |
| 100+               | 6            | 128             | 128        | 128       | 1620                | 1620        | 1620       |
| <b>all regions</b> | <b>3511</b>  | <b>0</b>        | <b>128</b> | <b>50</b> | <b>170</b>          | <b>1620</b> | <b>459</b> |

## Average CAUV Values By Year

| Productivity Index  | Average CAUV Values By Year |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------|-----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                     | 1991                        | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| 0-49                | 100                         | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 108  | 100  | 100  | 176  |
| 50-59               | 101                         | 100  | 100  | 100  | 101  | 100  | 100  | 111  | 114  | 107  | 104  | 102  | 101  | 114  | 106  | 134  | 100  | 100  | 200  |
| 60-69               | 106                         | 107  | 153  | 174  | 150  | 114  | 163  | 230  | 233  | 200  | 181  | 125  | 113  | 104  | 101  | 125  | 123  | 188  | 435  |
| 70-79               | 209                         | 235  | 363  | 383  | 320  | 257  | 373  | 448  | 452  | 417  | 394  | 285  | 244  | 157  | 124  | 241  | 283  | 431  | 746  |
| 80-89               | 412                         | 460  | 629  | 637  | 539  | 487  | 632  | 694  | 699  | 666  | 640  | 516  | 467  | 342  | 293  | 465  | 521  | 708  | 1059 |
| 90-99               | 614                         | 696  | 900  | 896  | 740  | 689  | 850  | 894  | 908  | 869  | 842  | 713  | 663  | 533  | 492  | 675  | 747  | 973  | 1368 |
| 100+                | 690                         | 790  | 1000 | 1010 | 870  | 820  | 990  | 1040 | 1060 | 1030 | 1000 | 870  | 820  | 690  | 650  | 880  | 970  | 1200 | 1620 |
| <b>Totals</b>       | 146                         | 154  | 206  | 216  | 189  | 160  | 209  | 258  | 262  | 242  | 231  | 180  | 163  | 135  | 123  | 177  | 181  | 249  | 459  |
| <b>No. of Soils</b> | 2719                        | 2854 | 2894 | 3023 | 3050 | 3050 | 3083 | 3246 | 3281 | 3371 | 3279 | 3307 | 3313 | 3313 | 3358 | 3482 | 3510 | 3511 | 3511 |

## Average CAUV Values By Reappraisal/Update Year

| Productivity Index  | Average CAUV Values By Reappraisal/Update Year |      |      |      |      |      |      |
|---------------------|--|------|------|------|------|------|------|
|                     | 1991   | 1994 | 1997 | 2000 | 2003 | 2006 | 2009 |
| 0-49                | 100  | 100  | 100  | 100  | 100  | 108  | 176  |
| 50-59               | 101  | 100  | 100  | 107  | 101  | 134  | 200  |
| 60-69               | 106  | 174  | 163  | 200  | 113  | 125  | 435  |
| 70-79               | 209  | 383  | 373  | 417  | 244  | 241  | 746  |
| 80-89               | 412  | 637  | 632  | 666  | 467  | 465  | 1059 |
| 90-99               | 614  | 896  | 850  | 869  | 663  | 675  | 1368 |
| 100+                | 690  | 1010 | 990  | 1030 | 820  | 880  | 1620 |
| <b>Totals</b>       | 146  | 216  | 209  | 242  | 163  | 177  | 459  |
| <b>No. of Soils</b> | 2719   | 3023 | 3083 | 3371 | 3313 | 3482 | 3511 |

## Comparison of 2009 Inputs with 2006 and 2008 Inputs for CAUV

### Crop Prices

|            | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>Change<br/>from 2006</u> | <u>Change<br/>from 2008</u> |
|------------|-------------|-------------|-------------|-------------|-----------------------------|-----------------------------|
| Corn       | \$1.99      | \$1.96      | \$2.02      | \$2.29      | \$0.30                      | \$0.27                      |
| Soybeans   | \$4.84      | \$4.89      | \$5.19      | \$5.60      | \$0.76                      | \$0.41                      |
| Wheat      | \$2.49      | \$2.64      | \$2.89      | \$3.05      | \$0.56                      | \$0.16                      |
| Hay(mixed) | \$75.54     | \$76.66     | \$79.80     | \$86.18     | \$10.64                     | \$6.38                      |
| Hay(grass) | \$59.51     | \$61.95     | \$64.77     | \$70.69     | \$11.18                     | \$5.92                      |

### Non-land Production Costs

| <u>Base Cost</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>Change<br/>from 2006</u> | <u>Change<br/>from 2008</u> |
|------------------|-------------|-------------|-------------|-------------|-----------------------------|-----------------------------|
| Corn             | \$232.83    | \$235.70    | \$242.39    | \$264.12    | \$31.29                     | \$21.73                     |
| Soybeans         | \$167.50    | \$168.14    | \$174.44    | \$175.21    | \$7.71                      | \$0.77                      |
| Wheat            | \$151.98    | \$153.67    | \$156.68    | \$159.01    | \$7.03                      | \$2.33                      |
| Hay              | \$138.26    | \$134.50    | \$133.80    | \$131.89    | (\$6.37)                    | (\$1.91)                    |

### Additional Unit Cost

|          | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>Change<br/>from 2006</u> | <u>Change<br/>from 2008</u> |
|----------|-------------|-------------|-------------|-------------|-----------------------------|-----------------------------|
| Corn     | \$0.92      | \$0.91      | \$0.90      | \$0.72      | (\$0.20)                    | (\$0.18)                    |
| Soybeans | \$0.49      | \$0.49      | \$0.50      | \$0.57      | \$0.08                      | \$0.07                      |
| Wheat    | \$0.87      | \$0.81      | \$0.84      | \$0.86      | (\$0.01)                    | \$0.02                      |
| Hay      | \$24.83     | \$23.98     | \$24.23     | \$22.75     | (\$2.08)                    | (\$1.48)                    |

### Capitalization Rate

|                       | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>Change<br/>from 2006</u> | <u>Change<br/>from 2008</u> |
|-----------------------|-------------|-------------|-------------|-------------|-----------------------------|-----------------------------|
| Mortgage/Equity Ratio | 60/40       | 60/40       | 60/40       | 60/40       |                             |                             |
| Years                 | 15          | 15          | 15          | 15          |                             |                             |
| Interest Rate         | 7.73        | 7.49        | 7.29        | 7.06        |                             |                             |
| Equity Rate           | 8.3         | 8.35        | 8.15        | 7.65        |                             |                             |
| Tax Additur           | 1.4         | 1.4         | 1.4         | 1.4         |                             |                             |
| Capitalization Rate   | 8.5         | 8.4         | 8.3         | 7.9         | (0.60)                      | (\$0.40)                    |