# Example Procedure 

## For

## Calculation of Adjusted Basic

## Crop Production Costs

## And

## Determination of Target Prices

Developed By:

Dennis Dornfeld - UWEX Ag Agent, Waushara County
Matt Hanson - UWEX Crops \& Soils Agent, Jefferson County
Kevin Shelley - NPM Regional Specialist, UW Madison
Joe Stellato - UWEX Crops \& Soils Agent - Shawano County Dave Williams - UWEX Ag Agent, Waukesha County

# Able Farm Information 

## Balance Sheet Summary

| Balance Sheet Items | Dec. 31 <br> This Past Year | Dec. 31 Two Years Ago | Dec. 31 <br> Three Years <br> Ago | $\begin{gathered} \text { Dec. } 31 \\ \text { Four Years } \\ \text { Ago } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| Changes in Accounts Payable | \$0 | \$3,200 | \$1,500 | \$180 |
| Changes in Prepaid Expenses | \$5,500 | \$10,500 | \$12,500 | \$9,250 |
|  |  |  |  |  |

Crop Price History

| Average Prices Received: | 2001 | 2000 | 1999 | 1998 |
| :---: | ---: | ---: | ---: | ---: |
| Corn | $\$ 1.65$ | $\$ 1.78$ | $\$ 1.67$ | $\$ 2.51$ |
| Soybeans | $\$ 4.10$ | $\$ 4.60$ | $\$ 4.29$ | $\$ 6.53$ |
| Hay | $\$ 70.00$ | $\$ 65.00$ | $\$ 65.00$ | $\$ 75.00$ |

Schedule F History

| Income | 2001 | 2000 | 1999 | 1998 |
| :---: | :---: | :---: | :---: | :---: |
| Crop Income Ag Program Payments Other Income | $\begin{array}{r} \$ 585,400 \\ \$ 64,960 \\ \$ 15,750 \\ \hline \end{array}$ | $\begin{array}{r} \$ 593,500 \\ \$ 68,500 \\ \$ 14,300 \\ \hline \end{array}$ | $\begin{array}{r} \$ 562,840 \\ \$ 69,400 \\ \$ 21,100 \\ \hline \end{array}$ | $\begin{array}{r} \$ 601,220 \\ \$ 39,000 \\ \$ 26,510 \\ \hline \end{array}$ |
| Total Income | \$666,110 | \$676,300 | \$653,340 | \$666,730 |
| Car \& Truck | \$2,000 | \$1,800 | \$1,275 | \$1,920 |
| Chemicals | \$75,000 | \$72,300 | \$68,200 | \$69,550 |
| Conservation Expenses | \$3,000 | \$5,800 | \$0 | \$18,000 |
| Depreciation | \$30,000 | \$31,500 | \$34,000 | \$36,200 |
| Employee Program Benefits | \$7,500 | \$6,800 | \$3,400 | \$4,600 |
| Ferrtilizers \& Lime | \$98,500 | \$82,600 | \$76,500 | \$87,000 |
| Freight \& Trucking | \$8,000 | \$9,200 | \$7,100 | \$8,650 |
| Gasoline, Fuel \& Oil | \$42,000 | \$37,600 | \$36,250 | \$38,620 |
| Insurance | \$20,000 | \$18,500 | \$19,450 | \$23,000 |
| Interest | \$41,500 | \$48,640 | \$53,120 | \$59,500 |
| Labor Hired | \$33,000 | \$26,500 | \$21,550 | \$28,100 |
| Rental \& Leases | \$55,500 | \$32,100 | \$48,220 | \$51,000 |
| Repairs \& Maintenance | \$44,500 | \$51,699 | \$52,100 | \$46,000 |
| Seeds Plants | \$50,000 | \$48,500 | \$53,000 | \$52,100 |
| Storage \& Warehousing | \$4,500 | \$359 | \$6,200 | \$7,100 |
| Supplies Purchased | \$10,000 | \$8,500 | \$11,250 | \$13,075 |
| Taxes | \$17,000 | \$16,420 | \$16,000 | \$15,340 |
| Utilities | \$6,500 | \$4,300 | \$5,200 | \$6,600 |
| Office Expense | \$6,500 | \$7,100 | \$3,200 | \$4,200 |
| Legal \& Professional Fees | \$500 | \$250 | \$1,450 | \$250 |
| Marketing Expenses | \$6,000 | \$7,900 | \$7,600 | \$8,300 |
| Total | \$561,500 | \$518,368 | \$525,065 | \$579,105 |

## Able Farm <br> Balance Sheet Summary

Assets

|  | 1/1/2002 | 1/1/2001 | 1/1/2000 | 1/1/1999 |
| :---: | :---: | :---: | :---: | :---: |
| Current Assets |  |  |  |  |
| Cash \& Checking Balance | \$20,000 | \$14,500 | \$35,200 | \$26,500 |
| Prepaid Expenses | \$48,400 | \$42,900 | \$37,900 | \$25,400 |
| Growing Crops |  |  |  |  |
| Accounts Receivable | \$3,750 | \$0 | \$6,300 | \$2,150 |
| Hedging Accounts | \$20,000 | \$4,500 | \$6,520 | \$40,500 |
| Crop Inventory | \$42,974 | \$22,500 | \$38,600 | \$64,500 |
| Market Livestock | \$0 | \$0 | \$0 | \$0 |
| Total Current Assets | \$135,124 | \$84,400 | \$124,520 | \$159,050 |
| Intermediate Assets |  |  |  |  |
| Breeding Livestock | \$0 | \$0 | \$0 | \$0 |
| Farm Machinery \& Equipment | \$350,000 | \$320,500 | \$310,500 | \$302,000 |
| Other Int. Assets | \$30,200 | \$24,650 | \$25,660 | \$28,960 |
| Total Intermediate Assets | \$380,200 | \$345,150 | \$336,160 | \$330,960 |
| Long Term Farm Assets |  |  |  |  |
| Land-1320 Acres | \$1,320,000 | \$1,320,000 | \$1,320,000 | \$1,320,000 |
| Buildings | \$251,000 | \$251,000 | \$251,000 | \$251,000 |
| Other Long Term, Assets | \$0 | \$0 | \$0 | \$0 |
| Total Long Term Assests | \$1,571,000 | \$1,571,000 | \$1,571,000 | \$1,571,000 |
| Total Farm Assets | \$1,841,248 | \$1,739,800 | \$1,820,040 | \$1,889,100 |

## Liabilities

|  | 1/1/2002 | 1/1/2001 | 1/1/2000 | 1/1/1999 |
| :---: | :---: | :---: | :---: | :---: |
| Current Farm Liabilities |  |  |  |  |
| Accrued Farm Interest | \$2,500 | \$3,900 | \$5,200 | \$6,800 |
| Farm Accounts Payable | \$4,700 | \$4,700 | \$1,500 | \$0 |
| Operating Loans | \$11,500 | \$0 | \$0 | \$4,500 |
| Pricipal Due In 12 Months | \$43,500 | \$36,600 | \$30,150 | \$27,800 |
| Real Estate Taxes Due | \$17,000 | \$18,200 | \$18,650 | \$1,900 |
| Total Current Liabilities | \$79,200 | \$63,400 | \$55,500 | \$41,000 |
| Intermediate Farm Liabilities |  |  |  |  |
| Machinery Loan | \$175,000 | \$194,716 | \$210,325 | \$225,934 |
| Other Int. Loans | \$23,000 | \$28,480 | \$32,995 | \$37,157 |
| Total Intermediate Liabilities | \$198,000 | \$223,196 | \$243,320 | \$263,091 |
| Long Term Farm Liabilities |  |  |  |  |
| Real Estate Mortgages | \$250,000 | \$261,403 | \$270,797 | \$279,458 |
| Other Long Term Liabilities | \$0 | \$0 | \$0 | \$0 |
| Total Long Term Liabilities | \$250,000 | \$261,403 | \$270,797 | \$279,458 |
| Total Farm Liabilities | \$527,200 | \$547,999 | \$569,617 | \$583,549 |
| Total Farm Assets | \$1,841,248 | \$1,739,800 | \$1,820,040 | \$1,889,100 |
| Farm Net Worth | \$1,314,048 | \$1,191,801 | \$1,250,423 | \$1,305,551 |

# Worksheet 1: Calculating Basic Costs and Individual Crop Production Costs 

Determination of Basic Cost
Of Production
Schedule F \& Balance Sheet Figures To Determine Basic Costs

|  | $\begin{gathered} 2001 \\ \text { Crop Year } \\ \hline \end{gathered}$ | $\begin{gathered} 2000 \\ \text { Crop Year } \\ \hline \end{gathered}$ | $\begin{gathered} 1999 \\ \text { Crop Year } \\ \hline \end{gathered}$ | $\begin{array}{\|c\|} \hline 1998 \\ \text { Crop Year } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1 Total Schedule F Expenses |  | \$518,368 | \$525,065 | \$579,105 |
| 2 Change in Accounts Payable | \$0 | \$3,200 | \$1,500 | \$180 |
| 3 Change in Prepaid Expenses |  | \$10,500 | \$12,500 | \$9,250 |
| 4 Total Livestock Expenses | \$0 | \$0 | \$0 | \$0 |
| 5 Total Interest Paid | \$41,500 | \$48,640 | \$53,120 | \$59,500 |
| 6 Wages and Benefits Paid |  | \$33,300 | \$24,950 | \$32,700 |
| 7 Depreciation Claimed |  | \$31,500 | \$34,000 | \$36,200 |
| $8 \begin{aligned} & \text { Basic Costs of Production } \\ & (\text { Line } 1+\text { line } 2 \text { - lines } 3,4,5,6,7) \end{aligned}$ | \$444,000 | \$397,628 | \$401,995 | \$441,635 |

Calculation of Adjusted Basic
Crop Production Costs

## Basic Cost $=\$ 444,000$

|  | Acres of Crops in Rotation | Cost/Acre From Table Below | Crop Acres Times Costs Below | Percent of <br> Total Cost by Crop | Costs <br> For Each Crop | Cost <br> Per Acre | Yield <br> Estimate <br> Next Year | Cost Per Unit of Yield |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B | C | D | E | F | G | H |
| Corn | 1200 | \$259.75 | \$311,700.00 | 67.7\% | \$300,707 | \$250.59 | 150 | \$1.67 |
| Soybeans | 700 |  |  |  |  |  | 50 |  |
| Hay | 100 | \$209.63 | \$20,963.00 | 4.6\% | \$20,224 | \$202.24 | 5 | \$40.45 |
| Winter Wheat |  |  |  |  |  |  |  |  |
| Peas |  |  |  |  |  |  |  |  |
| Snapbeans |  |  |  |  |  |  |  |  |
| Sweet Corn |  |  |  |  |  |  |  |  |
| TOTALS | 2000 |  | \$460,231.00 | 100.0\% | \$444,000 |  |  |  |

Crop Budget Figures To Use In Above Calculations To Estimate Production Costs

|  | Central WI | Southern WI | WI Dairy Farm |
| :---: | :---: | :---: | :---: |
| Barley |  |  | \$180.72 |
| Corn | \$233.75 | \$259.75 | \$239.45 |
| Corn Silage |  |  | \$186.96 |
| Hay | \$179.93 | \$209.63 |  |
| Hay - Baled |  |  | \$206.48 |
| Haylage |  |  | \$178.93 |
| HMSC |  |  | \$207.43 |
| Oats |  |  | \$179.33 |
| Peas | \$181.02 | \$203.02 |  |
| Snapbeans | \$263.11 | \$285.11 |  |
| Soybeans | \$168.73 | \$182.24 | \$148.23 |
| Sweet Corn | \$169.68 | \$191.68 |  |
| Winter Wheat | \$131.27 | \$153.27 |  |

## Worksheet 2A: Estimating, Prioritizing, and Determining Price Targets To Meet Production, Business and Family Goals



## Worksheet 2B: Estimating, Prioritizing, and Determining Price Targets To Meet Production, Business and Family Goals



Worksheet 2C: Estimating, Prioritizing, and Determining Price Targets To Meet Production, Business and Family Goals


Worksheet 2D: Estimating, Prioritizing, and Determining Price Targets
To Meet Production, Business and Family Goals

| Total Projected Crop Production: |  | Acres | Yield | Total Yield |
| :---: | :---: | :---: | :---: | :---: |
|  | Crop 1 | 1,200 | 150 | 180,000 |
|  | Crop 2 | 700 | 50 | 35,000 |
|  | Crop 3 | 100 | 5 | 500 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  | Crop 4 = |  |  |
|  | Cost or Goal | Basic financial costs \& goals to be achieved | Amount this crop should contribute 0.00\% | Price per unit of yield needed |
| Priority |  |  |  |  |
|  | Cost of Production |  |  |  |
| 1 | Basic Costs | \$444,000 | \$0 | \$0.00 |
| 2 | Interest | \$41,500 | \$0 | \$0.00 |
| 3 | Wages \& Benefits | \$40,500 | \$0 | \$0.00 |
|  | Farm Business \& Family Goals |  |  |  |
| 4 | Term Debt Service | \$32,000 | \$0 | \$0.00 |
| 5 | Minimum Family Living Draw | \$15,000 | \$0 | \$0.00 |
| 6 | Added Family Living Draw | \$10,000 | \$0 | \$0.00 |
| 7 | Tractor Replacement | \$8,500 | \$0 | \$0.00 |
| 8 | Field Cultivator | \$9,500 | \$0 | \$0.00 |
| 9 | Grain Storage Bin | \$18,000 | \$0 | \$0.00 |
| 10 | Winter Vacation | \$3,500 | \$0 | \$0.00 |
| 11 | College Fund | \$2,500 | \$0 | \$0.00 |
| 12 | Replace Pickup Truck | \$5,500 | \$0 | \$0.00 |
| 13 | Savings | \$5,000 | \$0 | \$0.00 |
| 14 | Savings | \$5,000 | \$0 | \$0.00 |
| 15 |  |  |  |  |
| 16 |  |  |  |  |
| 17 |  |  |  |  |
| 18 |  |  |  |  |
|  | Price To Meet All Goals | \$640,500 | \$0 | \$0.00 |

Worksheet 3 - Summary of Cumulative Crop Price Needs To Meet Target

|  |  | Acres | Cumulative Acres | Yield | Total Yield |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Crop 1 | 1,200 | 1,200 | 150 | 180,000 |  |  |
|  | Crop 2 | 700 | 1,900 | 50 | 35,000 |  |  |
|  | Crop 3 | 100 | 2,000 | 5 | 500 |  |  |
|  | Crop 4 | 0 | 2,000 |  |  |  |  |
|  |  |  |  | Crop 1= | Crop 2= | Crop 3= | Crop 4= |
| Priority | Cost or Goal | Basic financial costs \& goals to be achieved | Cumulative Costs \& Goals to be Achieved | Cumulative <br> Price Needed <br> For Crop to <br> Pay its Share | Cumulative <br> Price Needed <br> For Crop to <br> Pay its Share | Cumulative <br> Price Needed <br> For Crop to <br> Pay its Share | Cumulative <br> Price Needed <br> For Crop to <br> Pay its Share |
|  | Cost of Production |  |  |  |  |  |  |
| 1 | Basic Costs | \$444,000 | \$444,000 | \$1.67 | \$3.52 | \$40.85 |  |
| 2 | Interest | \$41,500 | \$485,500 | \$1.83 | \$3.84 | \$44.67 |  |
| 3 | Wages \& Benefits | \$40,500 | \$526,000 | \$1.98 |  | \$48.39 |  |
|  | Farm Business \& Family Goals |  |  |  |  |  |  |
| 4 | Term Debt Service | \$32,000 | \$558,000 | \$2.10 | \$4.42 | \$51.34 |  |
| 5 | Minimum Family Living Draw | \$15,000 | \$573,000 | \$2.16 | \$4.54 | \$52.72 |  |
| 6 | Added Family Living Draw | \$10,000 | \$583,000 | \$2.19 | \$4.62 | \$53.64 |  |
| 7 | Tractor Replacement | \$8,500 | \$591,500 | \$2.22 |  | \$54.42 |  |
| 8 | Field Cultivator | \$9,500 | \$601,000 | \$2.26 | \$4.76 | \$55.29 |  |
| 9 | Grain Storage Bin | \$18,000 | \$619,000 | \$2.33 | \$4.90 | \$56.95 |  |
| 10 | Winter Vacation | \$3,500 | \$622,500 | \$2.34 |  | \$57.27 |  |
| 11 | College Fund | \$2,500 | \$625,000 | \$2.35 | \$4.95 | \$57.50 |  |
| 12 | Replace Pickup Truck | \$5,500 | \$630,500 | \$2.37 | \$4.99 | \$58.01 |  |
| 13 | Savings | \$5,000 | \$635,500 | \$2.39 |  | \$58.47 |  |
| 14 | Savings | \$5,000 | \$640,500 | \$2.41 | \$5.07 | \$58.93 |  |
| 15 |  |  |  |  |  |  |  |
| 16 |  |  |  |  |  |  |  |
| 17 |  |  |  |  |  |  |  |
| 18 |  |  |  |  |  |  |  |

Worksheet 4 - Able Farm - Final Target Prices

| Line | Category of Costs/Goals | Cumulative Total Dollars Needed to Pay for Each Category | Total Dollars Needed Per Quarter to Pay for Each Category | Crop $1=$ <br> Target Price of Corn to Pay for this Category | Crop $2=$ <br> Target Price of Beans to Pay for this Category | Crop 3 = <br> Target Price of Hay to Pay for Each Category | Crop $4=$ Target Price of crop 4 to Pay for Each Category |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Drop Dead (Losses Incurred) | \$444,000 | \$111,000 | \$1.67 | \$3.52 | \$40.85 |  |
| 3 | Red Ribbon Price (Breakeven +) | \$526,000 | \$131,500 | \$1.98 |  | \$48.39 |  |
| 7 | Blue Ribbon Price (Successful) | \$591,500 | \$147,875 | \$2.22 |  | \$54.42 |  |
| 13 | Purple Ribbon) (Above Expectations) | \$635,500 | \$158,875 | \$2.39 |  | \$58.47 |  |
| 14 | Grand Champion (Exceptional Market) | \$640,500 | \$160,125 | \$2.41 | \$5.07 | \$58.93 |  |

## Developed By:

Dennis Dornfeld - UWEX Ag Agent, Waushara County
Matt Hanson - UWEX Crops \& Agent, Jefferson County
Kevin Shelley - NPM Regional Specialist, UW Madison
Joe Stellato - UWEX Crops \& Soils Agent - Shawano County
Dave Williams - UWEX Ag Agent, Waukesha County

