

Introduction to the Base and Yield Option Update Analyzer (BYA)

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National Extension Training for 2002 Farm Bill



Background for BYA

- AFPC worked with House and Senate Ag Committees on the 2002 Farm Bill
- Analyzed many options for safety net program
- Analyzed options for base and yield updating
- In January we developed an Excel BYA as a stochastic simulation model, but we abandoned it because
 - Excel version was too slow
 - Texas extension agents do not use Excel
- Re-wrote BYA in Fortran for speed and web delivery

Development of BYA

- Realized early on the Web was the only practical delivery method
- Web based front-end and back-end around a Fortran simulation model offered numerous benefits:
 - Utilized our experience in analyzing risk
 - Guarantees everyone uses the same model
 - We could post updated versions as the FSR Rules changed
- We recognize that there are a large number of decision aids that have been developed
- Our version is the only web based decision aid that offers the ability to analyze options under risk

After We had a Working BYA

- Texas State office suggested contacting Diane Sharp
- Met with FSA D.C. leadership in April
 - Looking for help checking our software and implementation specifics
- Began cross-checking with Brad Karmen
- Many iterations later – in a win-win situation
 - FSA found that it is working with a group that won't quit until it is right
 - AFPC is assured the software will actually be used
- Common goal is to help producers make more informed decisions on base and yield options

Overview and General Description of BYA

- Designed to be easy to use and understand
- Producers should be able to easily enter data provided by their county office
- Simulates 6 years, 2002-2007, for 500 combinations of prices using FAPRI July 2002 Baseline for price risk
- Producer may enter their own price assumptions for a No Risk (Constant Price) Analysis
- Summarizes results of risk analysis and constant price scenario
- Presents results with a probability ranking and graphs the possible range of government payments

Link to BYA From House Ag. Committee Web Page

agriculture.house.
gov/farmbill.htm

Address <http://agriculture.house.gov/farmbill.htm>

USDA Implements the "Farm Security and Rural Investment Act of 2002"

NEW AS OF
SATURDAY, AUGUST 24, 2002

Agriculture Secretary Ann M. Veneman has announced the **extension of emergency haying and grazing on Conservation Reserve Program (CRP) acres through Nov. 30, 2002** to continue relief to farmers and ranchers suffering from effects of drought.

[Direct link to USDA news release.](#)



Supplemental feed is being made available to farmers and ranchers operating cow-calf operations in areas most severely stricken by drought. [Direct link to USDA news release.](#)

- **Sign-up begins Oct. 1, 2002 for the direct and counter-cyclical program** for crop years 2002 and 2003. USDA will begin making payments to farmers soon thereafter. [Direct link to USDA signup news release.](#)
- **Producers' Base and Yield Update Option Analyzer is available on line** from the Agricultural and Food Policy Center at Texas A&M University. The Base Yield Analyzer can help farmers analyze the economic consequences of the updating options outlined in the 2002 Farm Bill, taking into consideration potentially risky crop prices and their impacts on counter-cyclical payment rates. **Prior to signing-up a farm, producers should check to see if the base and yield updating rules or the price projections have changed since the last analysis.** [Direct link to the Base and Yield Analyzer web site.](#)

Resources:
USDA announces [county loan rates](#) for 2002 crops

USDA forms you can complete on their [E-file site](#).

[Facts about farming](#) - trade, harvest and life on the farm

[Glossary](#) of farm bill terms by USDA's Economic Research Service

House Ag Committee Members speak out for farming - the farm bill debate [in their own words](#).

Summaries of 2002 Farm Bill:
(pdf document format - [help](#) for software)
[short summary](#) (six pages)
[comprehensive summary](#) (17 pages)

[Review the new law](#)
-- full bill text and the narrative Statement of Managers.

2002 Farm Bill has been officially designated Public Law 107-171

Link to BYA from Texas Extension Site

Extension Agricultural Economics

2002 Farm Bill Educational Materials

- [Presentation on Contents of 2002 Farm Bill](#)
(also available in these formats: [PowerPoint \(.ppt\)](#), [Acrobat \(.pdf\)](#) or [Corel Presentations \(.shw\)](#)*)
*For Netscape Users: To download the Corel Presentation, you must right click the link and select "Save Link As"
- [Question & Answer Forum](#)
(You can post questions that will be answered by Extension Policy Specialists)
- [Frequently Asked Questions](#)
(Access previously answered Farm Bill questions)
- [Glossary of Farm Bill Related Terms](#)
- [Interactive Illustration of Farm Program Provisions](#)
(Download an Excel Spreadsheet Demonstration)
- [Base and Yield Update Evaluation Software](#)
- [2002 Crop Loan Rates by Texas County and Extension District](#)
(available in [Excel \(.xls\)](#) or [Acrobat \(.pdf\)](#))
- [County, Multi-County, & Regional Farm Bill Educational Meetings in Texas](#)
(dates and locations)
- [2002 Farm Bill - Full Text Version](#)
(Full Text and the narrative Statement of Managers)
- [Background Information on Previous Farm Programs \(1996 Farm Bill\)](#)
(also available in these formats: [PowerPoint \(.ppt\)](#), [Acrobat \(.pdf\)](#) or [Corel Presentations \(.shw\)](#)*)
*For Netscape Users: To download the Corel Presentation, you must right click the link and select "Save Link As"
- [Agricultural and Food Policy Center](#)

**Overheads for Farm
Bill Presentation**

BYA link

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[Base and Yield Update Option Analyzer Now Available](#)

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2002 Farm Bill Education Materials

Recent Publications/**All Publications**

[Representative Farms Economic Outlook for the July 2002
FAPRI/AFPC Baseline](#)

[Farm Level Comparison of H.R. 2646 and S. 1731](#)

[Representative Farm Analysis of the H.R. 2646 Farm Bill Proposal](#)

Recent Presentations/**All Presentations**

[Presentation to the 12th Annual Outlook for Texas Rural Land
Markets](#)

[Briefing for the House and Senate Agricultural Committees on
Comparison of H.R.2646 and S.1731](#)

[Presentation to Texas Agricultural Forum: Comparison of Policy
Alternatives for Representative Farms/Ranches](#)

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First Page of the BYA

Base and Yield Update Option Analyzer

Version 2002.08.21

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The 2002 Farm Bill provides farmers and land owners a one time opportunity to update contract base acres and farm program yields used to calculate program benefits. The update decision is complex, as it may involve several different commodities and uncertain market conditions, which drive future counter-cyclical payments.

In response to this complex and critical decision, the Agricultural and Food Policy Center at Texas A&M University has developed the Base and Yield Update Option Analyzer (BYA). The BYA is a decision support program to help farmers analyze the economic consequences of the updating options outlined in the 2002 legislation taking into consideration potentially risky crop prices and their impacts on counter-cyclical payment rates.

Best viewed with [Microsoft Internet Explorer 6](#) or [Netscape 6](#) (Click to download)

[Continue with BYA](#)

Disclaimer Page

Disclaimer

This software is intended for educational use. It was developed solely to provide information so producers could better understand the consequences of the options available for updating Base Acres and Farm Program Yields.

By clicking the **I Agree** box below, I acknowledge that projected outcomes generated by the software are for demonstration purposes, are not forecasts of future outcomes, and do not guarantee any future outcomes or results.

I Agree

This option continues the software

I Disagree

This option exits the software

BYA Version Notification

Notice

The Farm Service Agency (FSA) of the U.S. Department of Agriculture in an ongoing partnership with AFPC, reviews the base acre and payment yield updating calculations in the BYA. FSA is continuing to interpret legislation and develop the rules for updating base and yield. FSA rule interpretation is expected to continue even during the sign-up period. Additionally, research on project crop prices under the 2002 Farm Bill is an ongoing effort by FAPRI and AFPC with improved price projections available periodically. New crop price projections will be added to the BYA database as they are received. All new information that affects the base acre and payment yield update calculations and decisions will be incorporated in the BYA as it becomes available with FSA confirmation.

The current version of the BYA is **Version 2002.08.21** which includes the FSA base and yield updating rules as of June 26, 2002 and the July 2002 FAPRI Baseline for crop prices. Prior to signing-up a farm, you should check this web site to see if the base and yield updating rules or the price projections have changed since your analysis. A description of changes will be posted on this page as they are received and new versions of the BYA will be made available on the site.

BYA Release Notes

- Version 2002.07.19** -- calculates weighted average plug yields on the annual planted acres of each crop and county average irrigated and non-irrigated yields over 1998-01
- Version 2002.07.19** -- database of NASS county average yields has been augmented for missing values
- Version 2002.07.24** -- Yield fractions for minor oilseeds updated to latest FSA specifications
- Version 2002.08.07** -- Adopted current FSA interpretation of yield plug for irrigated/dryland farms. The plug is now a weighted average over the 1998-2001 period rather than a separate plug for each year
- Version 2002.08.08** -- Minor Bug Fix
- Version 2002.08.12** -- Added footnotes to tables for more complete explanations of the results
- Version 2002.08.13** -- Allow planted acres to exceed eligible acres in one or more years; BYA reduces base acres for excess Base Acres
- Version 2002.08.15** -- Expanded number of output tables to show average annual government payment rates
- Version 2002.08.19** -- Added capability to analyze base and yield opportunity for alternative share rental arrangements
- Version 2002.08.21** -- Corrected Barley Direct Payment Rate

Options for the BYA

[Click Here to Calculate Updated Base & Yield for Your Farm](#)

Updating Options:

Click here for a brief description of the acreage and yield updating options provided in the 2002 Farm Bill.

Commodity Prices:

Future commodity prices and therefore Counter Cyclical Payments are uncertain. Click here to read more about how BYA incorporates market price and Counter Cyclical Payment risk.

[About BYA](#)

[BYA Documentation](#)

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[Download Adobe Acrobat Reader](#)

(Required for formatted output printing and documentation viewing)

Example Farm

- Webster County Iowa farm unit named The Smith Farm
160 acres of cropland
- Two crops grown 1998-2002
- Historical base for three crops
- Production and Farm Program History

<u>Crop</u>	<u>Planted</u>	<u>Base (PFC)</u>	<u>Payment Yield</u>
Corn	80	80	100
Soybeans	80	0	0
Oats	0	15	50
Wheat	0	15	40

Input: User Must first Select the State

Please select your state and then your county.

Exit

State:

IA ▼

Submit

- **Scrollable menu allows user to select the state where the farm resides**
- **Iowa was selected here for the example**

Input: User Must Then Select the County

Please select your state and then your county.

Exit

State:

IA

County:

Webster

Submit

➤ **Scrollable menu of all county names in each state allows the user to specify the county where farm is located**

➤ **State and county are necessary for BYA to pull NASS county yields and the Similar farm's payment yield from the county data base**

Input: Specify All Covered Crops Produced on the Farm

- User specifies crops based on production practice:
 - Irrigated
 - Non-Irrigated
 - Combined irrigated and non-irrigated
- Must include crops with base acres and crops produced in 1998-2001

Please enter information about your farm for crops produced in 1998-01 and crops with historical base acres and payment yields.

Exit

If Information from FSA lists "subsequent acres" for one or more years you MUST choose which crop to use in the base updating process. Subsequent acres may not be counted twice.

	FSA Certified Irrigated Practice ¹	Non-Irrigated Production Practice	Combined Irrigated/Non-Irrigated Practice ²
Cotton	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wheat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sorghum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Barley	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rice	<input type="checkbox"/>		
Soybeans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sunflowers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flaxseed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Canola	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rapeseed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safflower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mustard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹FSA certified irrigated acres

²Use this option if FSA does not breakout acres and yield by production practice. If you select combined, you cannot select the irrigated or non-irrigated production practices.

Submit

Crop Input: Selected Four Crops for the Example Farm Unit

- Four crops produced on the farm unit:
 - Corn
 - Soybeans
- Two crops have historical base acres
 - Oats
 - Wheat
- Combined is used when crop is grown under both irrigated and non-irrigated conditions

Please enter information about your farm for crops produced in 1998-01 and crops with historical base acres and payment yields.

Exit

If information from FSA lists "subsequent acres" for one or more years you MUST choose which crop to use in the base updating process. Subsequent acres may not be counted twice.

	FSA Certified Irrigated Practice ¹	Non-Irrigated Production Practice	Combined Irrigated/Non-Irrigated Practice ²
Cotton	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wheat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sorghum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corn	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Barley	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oats	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soybeans	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sunflowers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flaxseed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Canola	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rapeseed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safflower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mustard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Crops Selected

¹FSA certified irrigated acres

²Use this option if FSA does not breakout acres and yield by production practice. If you select combined, you cannot select the irrigated or non-irrigated production practices.

Submit

Crop Input Screen: User Enters History for Each Crop on the Farm Unit

- Example shows State:IA
County:Webster
and first crop is wheat
- Enter total cropland on farm and acres in CRP and WRP
- Note County average yields are inserted by BYA from State/County names

Input for Base and Yield Calculator
Empty fields will be interpreted as zero values.

State: IA County: Webster

Farm Name:

Total Cropland on the Farm:

Total CRP & WRP Acres:

Total Double Crop Acres:

Wheat Non-Irrigated

Contract Acres 2001 (or 2002 PFC Acres)

2001 Payment Yield (bu.)

Similar Farm's Payment Yield (bu.)

County Average Yield 1998-01 (bu.)

History of Acres and Yield or Production

	1998	1999	2000	2001
History of Actual Planted Acres	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Proven Yield/Planted Acre or Proven Production (bu.)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Specify whether entered yield or production Yield Production

Your share of the crop (%)

NASS only reports yields for 'All' and does not breakout irrigated and no

From an FSA data base

From a NASS data base

Crop Input Screen: Enter a Name for the Farm Unit and Acres

Input for Base and Yield Calculator

Empty fields will be interpreted as zero values.

State: IA

County: Webster

Farm Name:

Total Cropland on the Farm:

Total CRP & WRP Acres:

Total Double Crop Acres:

➤ **Enter the name of the farm unit. Name appears in the report and on summary results tables.**

➤ **Total cropland acres minus WRP and CRP acres plus double crop acres defines total eligible acres used to update base acres.**

Crop Input Screen: BYA accesses Database for County Average Yields

Wheat Non-Irrigated

Contract Acres 2001 (or 2002 PFC Acres)

2001 Payment Yield (bu.)

Similar Farm's Payment Yield (bu.)

County Average Yield 1998-01 (bu.)

NASS only reports yields for 'All' and does not breakout irrigated and non-irrigated.

History of Acres and Yield or Production

1998

1999

2000

2001

History of Actual Planted Acres

Proven Yield/Planted Acre or Proven Production (bu.)

Specify whether entered yield or production

Yield

Production

Your share of the crop (%)

➤ **Wheat has a historical base but was not planted 1998-2002. Enter the base acres and zero planted acres**

➤ **Provide the historical payment yield**

➤ **County yield values come from NASS if they are available**

Crop Input Screen: BYA accesses Database for County Average Yields

Corn Non-Irrigated

Contract Acres 2001 (or 2002 PFC Acres)

2001 Payment Yield (bu.)

Similar Farm's Payment Yield (bu.)

County Average Yield 1998-01 (bu.)

NASS only reports yields for 'All' and does not breakout irrigated and non-irrigated.

History of Acres and Yield or Production

1998

1999

2000

2001

History of Actual Planted Acres

Proven Yield/Planted Acre or Proven Production (bu.)

Specify whether entered yield or production

Yield

Production

Your share of the crop (%)

➤ **County yield values come from NASS if they are available**

➤ **Enter actual planted acres and proven yield (or production) for the crop**

Crop Input Screen: Entered Historical Acres and Yield for a Program Crop

Oats Non-Irrigated

Contract Acres 2001 (or 2002 PFC Acres)

2001 Payment Yield (bu.)

Similar Farm's Payment Yield (bu.)

County Average Yield 1998-01 (bu.)

NASS only reports yields for 'All' and does not breakout irrigated and non-irrigated.

History of Acres and Yield or Production

1998

1999

2000

2001

History of Actual Planted Acres

Proven Yield/Planted Acre or Proven Production (bu.)

Specify whether entered yield or production

Yield

Production

Your share of the crop (%)

- Enter historical base acres even if the crop was not planted 1998-02
- Enter the historical payment yield as well, even if the crop was not planted

Crop Input Screen: Example for Oilseed Crops -- Note Entered Production

Soybeans Non-Irrigated

County Average Yield 1998-01 (bu.)

NASS only reports yields for 'All' and does not breakout irrigated and non-irrigated.

History of Acres and Yield or Production

1998

1999

2000

2001

History of Actual Planted Acres

Proven Yield/Planted Acre or Proven Production (bu.)

Specify whether entered yield or production

Yield

Production

Your share of the crop (%)

- **Less input is required because oilseed crops have no historical base acres and payment yield**
- **NASS county average yield is provided if it is available**
- **User can type in their own county average yield if FSA's value is in error**

Crop Input Screen: User May Review, Revise or Accept Default Annual Prices

Assumed Annual Crop Prices Used for the Constant Price Analysis (or user's own estimates)

Crop Name:	2002	2003	2004	2005	2006	2007
Wheat (bu.)	<input type="text" value="2.95"/>	<input type="text" value="2.93"/>	<input type="text" value="3.04"/>	<input type="text" value="3.07"/>	<input type="text" value="3.17"/>	<input type="text" value="3.23"/>
Corn (bu.)	<input type="text" value="2.03"/>	<input type="text" value="2.04"/>	<input type="text" value="2.1"/>	<input type="text" value="2.15"/>	<input type="text" value="2.19"/>	<input type="text" value="2.23"/>
Oats (bu.)	<input type="text" value="1.27"/>	<input type="text" value="1.27"/>	<input type="text" value="1.28"/>	<input type="text" value="1.29"/>	<input type="text" value="1.29"/>	<input type="text" value="1.3"/>
Soybeans (bu.)	<input type="text" value="4.39"/>	<input type="text" value="4.84"/>	<input type="text" value="5.05"/>	<input type="text" value="5.18"/>	<input type="text" value="5.34"/>	<input type="text" value="5.48"/>

- Producers prices used for the constant price analysis of the alternative base and payment yields
- Users can specify their own annual prices for use in calculating government payments by typing their own values into the cells
- The default prices come from the July 2002 FAPRI Baseline assuming continuation of the 2002 Farm Bill

Crop Input Screen: Last Option is to Select the Output Format for Report

Specify the output format. These options do not affect the calculations or prices used for the analysis.

Minimum Output

- Input for the farm
- Calculated base acres
- Calculated payment yields
- Total annual payments by update alternative for risky price and constant price analyses
- Projected total government payment for updating options

Maximum Output

- Input for the farm
- Tables showing how base and yields are calculated
- Calculated base acres
- Calculated payment yields
- Average annual direct and CC payment rates used for analysis
- Annual government payments by crop and update alternative
- Total annual payments by update alternative for risky price and constant price analyses
- Projected total government payments for updating options

Submit for Analysis

- **Two reports are generated by BYA.**
 - **Minimum provides the basic tables plus footnotes**
 - **Maximum provides all tables and all footnotes**
- **Click on Submit for Analysis to simulate the farm unit for 500 iterations of 6 years**

Report: Starts with Users Input Data and Continues with Calculations and Results

[Exit](#)

State: IA

The Smith Farm

County: Webster

Computed using BYA Version 2002.08.21 at 07:56 AM CST on 08/24/2002

08/24/02 PAGE 1

BYA -- Base And Yield Update Option Analyzer for the 2002 Farm Bill Ver. 2002.08.21
 (c) 2002 Agricultural and Food Policy Center, Texas A&M University

Farm Name: The Smith Farm
 State: IA
 County: Webster
 Date 08/24/02

Cropland on the Farm 160.0
 Total CRP and WRP Cropland 0.0
 Total Double Crop Acres 0.0

Table 1. Actual Input Data : 2002 Production Flexibility Contract (PFC) Acres and Planting History, 1998-2001

Crop Name	2002 PFC	-----Planted Acre History-----				Share of the Crop
	Acres	1998	1999	2000	2001	
Wheat	15.0	0.0	0.0	0.0	0.0	1.000
Corn	80.0	80.0	80.0	80.0	80.0	1.000
Oats	15.0	0.0	0.0	0.0	0.0	1.000
Soybeans	0.0	80.0	80.0	80.0	80.0	1.000
Totals	110.0	160.0	160.0	160.0	160.0	

Planted acres history must reflect proven acres for each crop. If irrigated and non-irrigated acres are provided for a crop, the irrigated acres are reported first followed by the non-irrigated acres.

Report: Farm Name, Acreage and Version Number with a Date

[Exit](#)

State: IA

The Smith Farm

County: Webster

Computed using BYA Version 2002.08.21 at 07:56 AM CST on 08/24/2002

08/24/02 PAGE 1

BYA -- Base And Yield Update Option Analyzer for the 2002 Farm Bill Ver. 2002.08.21
(c) 2002 Agricultural and Food Policy Center, Texas A&M University

Farm Name: The Smith Farm
State: IA
County: Webster
Date 08/24/02

Cropland on the Farm	160.0
Total CRP and WRP Cropland	0.0
Total Double Crop Acres	0.0

- Farm unit's name, state and county at the outset presented first
- Total cropland on the farm unit is also provided
- BYA version number is important as FSA is changing the rules as we go; unannounced versions will appear

Report: Historical Acreage Input Summary

Table 1. Actual Input Data : 2002 Production Flexibility Contract (PFC) Acres and Planting History, 1998-2001

Crop Name	2002 PFC	-----Planted Acre History-----				Share of the Crop
	Acres	1998	1999	2000	2001	
Wheat	15.0	0.0	0.0	0.0	0.0	1.000
Corn	80.0	80.0	80.0	80.0	80.0	1.000
Oats	15.0	0.0	0.0	0.0	0.0	1.000
Soybeans	0.0	80.0	80.0	80.0	80.0	1.000
Totals	110.0	160.0	160.0	160.0	160.0	

Planted acres history must reflect proven acres for each crop. If irrigated and non-irrigated acres are provided for a crop, the irrigated acres are reported first followed by the non-irrigated acres.

- **Input data provided by the user is summarized in the Report so the user can verify the data was entered properly**
- **Historical planted acres and current 2002 base acres are summarized in the first input data table**
- **Share of the crop is provided in this table**

Report: Proven Production, County Yields, and Similar Farm Payment Yield

Table 2. Actual Input Data: 2002 PFC Payment Yield, Similiar Farm Payment Yield, and Producer Proven Yield or Production History, 1998-2001

Crop Name	2002 PFC	Similiar	--Producer Proven Yields or Production--			
	Pymt Yield	Pymt Yield	1998	1999	2000	2001
Wheat	40.0	37.8	0.	0.	0.	0.
Corn	100.0	129.2	140.	80.	135.	160.
Oats	70.0	72.5	0.	0.	0.	0.
Soybeans	0.0	0.0	3600.	2240.	3840.	4000.

Actual annual proven yield (or production) must be provided for each crop. If irrigated and non-irrigated yields are provided for a crop, the irrigated yields are reported first followed by the non-irrigated yields.

- **Farm unit's historical production or yield per harvested acre is summarized along with the payment yield on similar farms**
- **Similar farm's payment yield is presently based on county average payment yields from FSA**

Report: Weighted Average County Yields with Plugs for Low Yields

Table 3. Actual Input Data: County Average Yields and Annual Yield Plugs for Replacing Low Yields

Crop Name	NASS	Weighted County Average Yields				Yield Plugs Equal 75% of County Yield			
	County Avg	1998	1999	2000	2001	1998	1999	2000	2001
Wheat	52.0	52.0	52.0	52.0	52.0	39.0	39.0	39.0	39.0
Corn	150.0	150.0	150.0	150.0	150.0	112.5	112.5	112.5	112.5
Oats	85.0	85.0	85.0	85.0	85.0	63.8	63.8	63.8	63.8
Soybeans	45.0	45.0	45.0	45.0	45.0	33.8	33.8	33.8	33.8

County average yield is a 4 year average of NASS yields per harvested acre for the county. When the farm grows irrigated and non-irrigated crops, the weighted county average yield equals the county average yield, weighted by the farms mix of irrigated and non-irrigated acres.

Seventy-five percent of county average yield can be used as the plug to replace low yields.

➤ **NASS county average yield is used to calculate weighted average yield plugs to replace low yields**

➤ **Farms with both irrigated and non-irrigated yields have annual weighted average plugs based on the ratio of irrigated and non-irrigated acres each year**

Report: Prices for A Constant Price Scenario

Table 4. Input Data: Producers Projected Annual Prices Used for the Constant Prices Analysis

Crop Name	2002	2003	2004	2005	2006	2007
Wheat (\$/bu)	2.95	2.93	3.04	3.07	3.17	3.23
Corn (\$/bu)	2.03	2.04	2.10	2.15	2.19	2.23
Oats (\$/bu)	1.27	1.27	1.28	1.29	1.29	1.30
Soybeans (\$/bu)	4.39	4.84	5.05	5.18	5.34	5.48

Projected prices for the constant price analysis are based on: users assumptions or the FAPRI July 2002 Baseline for cotton, grains, soybeans, and sunflowers. Projected prices for minor oilseeds are the users.

- **Producer's prices used to simulate annual counter cyclical prices and government payments for the Constant Price Scenario**
- **Default prices overridden by the user will appear in this table**

Report: Historical Acreage Used to Calculate Base Acres

Table 1. Input Data: Planted Acres History by Crop and Average Planted Acres, 1998-2001

Crop Name	-----Total Planted Acres-----				1998-01
	1998	1999	2000	2001	Average
Wheat	0.0	0.0	0.0	0.0	0.0
Corn	80.0	80.0	80.0	80.0	80.0
Oats	0.0	0.0	0.0	0.0	0.0
Soybeans	80.0	80.0	80.0	80.0	80.0
Totals	160.0	160.0	160.0	160.0	160.0

The 1998-01 average planted acres is calculated by dividing by four, not the number of years planted.

- **Acres used to calculate base acres are summarized**
- **For farms with irrigated and non-irrigated acres, this table shows the sum of planted acres across production practices**

Report: Proven Yields with Plugs Inserted

Table 1. Data Processing: Producer Proven Yields with Plugs and Calculated Weighted Average Yield

Crop Name	1998	1999	2000	2001	Average	Plug Values
Wheat	0.0	0.0	0.0	0.0	0.0	
Corn	140.0	112.5	135.0	160.0	136.9	
Oats	0.0	0.0	0.0	0.0	0.0	
Soybeans	45.0	33.8	48.0	50.0	44.2	

Seventy-five percent of county average yield can be used as the plug to replace low yields. Average yield is a "weighted average" calculated using the sum of production divided by the sum of planted acres. It is not a simple average of the yields.

- **Proven yields with adjustments for low yields are summarized in this table**
- **Average yield is a weighted average of the years the crop was produced. Weighted average is calculated using planted acres each year.**

Report: Excess Oilseed Acres

Table 3. Data Processing: Excess Oilseed Acres Not Eligible for Calculating Base Acres Under Option 2

Crop Name	1998	1999	2000	2001
Soybeans	-30.0	-30.0	-30.0	-30.0

Each year oilseed acres can not exceed total planted acres less existing base acres. Values in the table indicate the number of oilseed acres that were in excess and can not count towards a base for the particular oilseed crop.

- **Oilseed eligible acres can not exceed the difference between total planted acres and total base acres**
- **In the example planted acres equals 160 and base acres was 110; the difference of 50 is eligible oilseed acres. Given there were on average 80 soybean planted acres, then 30 acres are in excess.**

Report: Eligible Oilseed Acres

Table 4. Data Processing: Eligible Oilseed Acres Under Option 2

Crop Name	1998	1999	2000	2001	Average
Soybeans	50.0	50.0	50.0	50.0	50.0

Each year eligible oilseed acres may equal the smaller of: (a) planted oilseed acres, or (b) total planted acres for all crops minus existing base acres. Oilseed acres in excess of the limit are indicated in Table 3. Eligible oilseed acres in this table equal planted acres less excess acres.

- **Eligible acres for each oilseed crop are summarized in this table**
- **Eligible oilseed acres equals acres planted minus excess acres in the previous table**

Report: Estimated Annual Government Payment/Acre by Crop

Table 2. Data Processing: Estimated Annual Government Payments per Base Acre

Crop Name	Avg. Payment \$/Acre
Wheat	19.3
Corn	49.1
Oats	1.8
Soybeans	21.5

Estimated government payments per base acre were calculated based on projected annual prices and the average established payment yields. These values are used as a guide in determining which crop's base acres are reduced to gain base acres for oilseeds.

- **Estimated per acre government payments are calculated based on an average of the 2002-2007 period CCP rates and direct payment rates and payment yields**
- **Only calculated if the crop has been grown 1998-02**
- **These values used when determining which base acres to trade for oilseed base when trying to maximize oilseed base acres**

Report: Non-Oilseed Base Can Be Traded to Maximize Oilseed Base Acres

Table 5. Data Processing: Non-Oilseed Contract Acres Traded for Oilseed Acres Under Option 3

Crop Name	Acres Traded
Wheat	-15.0
Corn	0.0
Oats	-15.0
Soybeans	30.0

Under Option 3 the number of base acres established for oilseeds can be increased by reducing the non-oilseed PFC (base) acres. The negative values in the table indicate the maximum number of non-oilseed base acres that can be exchanged to establish the maximum base acres for oilseed crops. The positive values indicate the number of base acres added to oilseed crops. The BYA determines which crop to exchange base acres from given expected government payments per base acre.

- **Under the “maximize oilseed” base acre update option, producers can reduce non-oilseed base acres to increase oilseed base acres 1:1**
- **The acres of base reduced to increase oilseed base are indicated in this table**
- **Base acres are reduced if expected payments are less than for the oilseed crop**

Report: Definition of Base Update and Yield Establishment Options

Definitions of the Options for Updating Base Acres:

Option 1. Freeze 2002 PFC acres for all years.

Option 2. Add minimum oilseed base acres to existing 2002 PFC acres.

Option 3. Add maximum oilseed base acres to reduced 2002 PFC acres.

Option 4. Update all base acres using 1998-01 average planted acres.

Oilseed base can be between the minimum and maximum. This option is not included because it can result in an infinite combination of base options.

Definitions of the Options for Establishing Farm Payment Yields:

Option 5. Freeze 2002 payment yields for non-oilseed crops.

Option 6. Establish oilseed payment yields and freeze payment yields for non-oilseed crops.

Option 7. Establish payment yields using 70% of increase in yield over 2001 payment yield.

Option 8. Establish payment yields using 93.5% of average 1998-01 proven yield.

Report: Calculated Base Acres for Permitted Options

Table 1. Base Acre Options: Final Calculated Base Acres for Options 1-4, After Excess Base Acre Rule

Crop Name	2002 Contract Base Acres (Option 1)	Min Oil & Freeze AMTA (Option 2)	Max Oil Base Reduce AMTA (Option 3)	Update All Bases (Option 4)
Wheat	15.00	15.00	0.00	0.00
Corn	80.00	80.00	80.00	80.00
Oats	15.00	15.00	0.00	0.00
Soybeans	0.00	50.00	80.00	80.00
Total Base Acres	110.00	160.00	160.00	160.00

Base acres are calculated for the relevant options given the crops on the farm. If the farm raises oilseeds then Options 1-4 appear in the table. Farms without oilseed crops only have Options 1 and 4.

Definitions of the Options for Updating Base Acres:

Option 1. Freeze 2002 PFC acres for all years.

Option 2. Add minimum oilseed base acres to existing 2002 PFC acres.

Option 3. Add maximum oilseed base acres to reduced 2002 PFC acres.

Option 4. Update all base acres using 1998-01 average planted acres.

Oilseed base can be between the minimum and maximum. This option is not included because it can result in an infinite combination of base options.

Report: Established Payment Yields

Table 1. Payment Yield Options: Calculated Farm Payment Yields for Direct and Counter-Cyclical Payments

Crop Name	Fixed Payment Yield	2002 PFC Yield (Option 5)	Only Update Oilseed Base (Option 6)	70% Incr. in Yield (Option 7)	93.5% of Average Yield (Option 8)
Wheat	40.00	40.00	40.00	12.00	0.00
Corn	100.00	100.00	100.00	126.00	128.00
Oats	70.00	70.00	70.00	21.00	0.00
Soybeans	34.00	0.00	34.00	41.00	41.00

The payment yield for fixed payments equals current PFC payment yields or similar farm payment yields for traditional program crops and a fraction, such as 0.78, of average yields for oilseed crops. Payment yields are calculated for the relevant options given the crops on the farm. If the farm raises oilseeds then Options 5-8 appear in the table. Farms without oilseed crops only have Options 5, 7 and 8.

Definitions of the Options for Establishing Farm Payment Yields:

Option 5. Freeze 2002 payment yields for non-oilseed crops.

Option 6. Establish oilseed payment yields and freeze payment yields for non-oilseed crops.

Option 7. Establish payment yields using 70% of increase in yield over 2001 payment yield.

Option 8. Establish payment yields using 93.5% of average 1998-01 proven yield.

Report: Definition of Permitted Combinations of Base and Yield Updates

Definitions of the Base Acre Update and Payment Yield Establishment Alternatives

- A. Freeze 2002 base acres (1) and payment yields (5).
- B. Add oilseed base acres (2), freeze non-oilseed payment yields (5), establish oilseed payment yields (6).
- C. Maximize oilseed base acres (3), freeze non-oilseed payment yields (5), establish oilseed payment yields (6).
- D. Update all base acres (4), freeze non-oilseed payment yields (5), establish oilseed payment yields (6).
- E. Update all base acres (4) establish all payment yields using 70% formula (7).
- F. Update all base acres (4) establish all payment yields using 93.5% formula (8).

Only the relevant combinations of base acre updates and payment yield establishment options are presented to reduce confusion. Farms growing oilseeds may elect from Options A-F while farms without oilseeds are eligible for only Options A, D, E and F.

- The permitted combinations of Base updating and Payment Yield establishment are named Alternatives A-F
- Remember Options:
 - 1-4 are for Base Acres Updating options
 - 5-8 are for Payment Yield Establishment options

Report: Annual Direct Payment Rates

Table 1. Annual Payment Rates Used to Calculate Direct Payments for the Analysis

Crops	2002	2003	2004	2005	2006	2007
Wheat	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200
Corn	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800
Oats	0.0240	0.0240	0.0240	0.0240	0.0240	0.0240
Soybeans	0.4400	0.4400	0.4400	0.4400	0.4400	0.4400

Payment rates used to calculate direct payments are specified in the farm bill.

- **Annual direct payment rates are provided as a check**
- **Annual rates appear in this table for each crop on the farm unit**

Report: Average Annual CC Payment Rates for Risk Prices

Table 2. Average Annual Counter Cyclical Payment Rates Used for the Variable Price (Risky) Analysis

Crops	2002	2003	2004	2005	2006	2007
Wheat	0.3403	0.3458	0.3506	0.3401	0.2638	0.2300
Corn	0.2312	0.2349	0.2587	0.2445	0.2283	0.2098
Oats	0.0172	0.0174	0.0566	0.0567	0.0559	0.0537
Soybeans	0.3068	0.2866	0.2643	0.2426	0.2144	0.1941

Annual payment rates used to calculate counter cyclical payments are determined based on the average annual prices for the crops. As a result these payment rates are risky. The annual payment rates in the table are the average annual rates based on 500 possible crop prices for each year.

- **Average annual CC payment rates are calculated from the 500 draws of crop prices each year**
- **These CC payment rates will not equal the rates for the constant price scenario**

Report: Annual CC Payment Rates for Constant Price Scenario

Table 3. Annual Counter Cyclical Payment Rates Used for the Projected Constant Price Analysis

Crops	2002	2003	2004	2005	2006	2007
Wheat	0.3900	0.4100	0.3600	0.3300	0.2300	0.1700
Corn	0.2900	0.2800	0.2500	0.2000	0.1600	0.1200
Oats	0.0260	0.0260	0.0860	0.0860	0.0860	0.0860
Soybeans	0.3600	0.3600	0.3100	0.1800	0.0200	0.0000

The annual counter cyclical payment rates in the table are calculated based on the assumed annual crop prices specified by the producer and do not reflect the potential price risk. These payment rates were used to calculate counter cyclical payments for the constant price scenario.

- **Constant prices provided by the user are used to calculate the CC payment rates in this table**
- **These CC payment rates are used to calculate CC payments for the constant price scenario**

Report: Annual Payments for First Crop

Table 1. Risk Results: Wheat, Government Payments Calculated Using (Risky) Variable Annual Prices
 These results were calculated using 500 possible combinations of future prices not the user entered prices.

	2002	2003	2004	2005	2006	2007	Total
Direct Payments							
A. Freeze 2002 Base (1) and Yields (5)	265.	265.	265.	265.	265.	265.	1591.
B. Add Min Oilseeds (2) and Yields (6)	265.	265.	265.	265.	265.	265.	1591.
C. Add Max Oilseeds (3) and Yields (6)	0.	0.	0.	0.	0.	0.	0.
D. Update Base (4) Freeze Yields (6)	0.	0.	0.	0.	0.	0.	0.
E. Update Base (4) & Yields 70% (7)	0.	0.	0.	0.	0.	0.	0.
F. Update Base (4) & Yields 93.5% (8)	0.	0.	0.	0.	0.	0.	0.
Counter Cyclical Payments							
A. Freeze 2002 Base (1) and Yields (5)	174.	176.	179.	173.	135.	117.	954.
B. Add Min Oilseeds (2) and Yields (6)	174.	176.	179.	173.	135.	117.	954.
C. Add Max Oilseeds (3) and Yields (6)	0.	0.	0.	0.	0.	0.	0.
D. Update Base (4) Freeze Yields (6)	0.	0.	0.	0.	0.	0.	0.
E. Update Base (4) & Yields 70% (7)	0.	0.	0.	0.	0.	0.	0.
F. Update Base (4) & Yields 93.5% (8)	0.	0.	0.	0.	0.	0.	0.
Total Payments							
A. Freeze 2002 Base (1) and Yields (5)	439.	442.	444.	439.	400.	382.	2545.
B. Add Min Oilseeds (2) and Yields (6)	439.	442.	444.	439.	400.	382.	2545.
C. Add Max Oilseeds (3) and Yields (6)	0.	0.	0.	0.	0.	0.	0.
D. Update Base (4) Freeze Yields (6)	0.	0.	0.	0.	0.	0.	0.
E. Update Base (4) & Yields 70% (7)	0.	0.	0.	0.	0.	0.	0.
F. Update Base (4) & Yields 93.5% (8)	0.	0.	0.	0.	0.	0.	0.

• Payments calculated using risky prices and CC payment rates

Report: Annual Payment for Second Crop

Table 2. Risk Results: Corn, Government Payments Calculated Using (Risky) Variable Annual Prices
 These results were calculated using 500 possible combinations of future prices not the user entered prices.

	2002	2003	2004	2005	2006	2007	Total
Direct Payments							
A. Freeze 2002 Base (1) and Yields (5)	1904.	1904.	1904.	1904.	1904.	1904.	11424.
B. Add Min Oilseeds (2) and Yields (6)	1904.	1904.	1904.	1904.	1904.	1904.	11424.
C. Add Max Oilseeds (3) and Yields (6)	1904.	1904.	1904.	1904.	1904.	1904.	11424.
D. Update Base (4) Freeze Yields (6)	1904.	1904.	1904.	1904.	1904.	1904.	11424.
E. Update Base (4) & Yields 70% (7)	1904.	1904.	1904.	1904.	1904.	1904.	11424.
F. Update Base (4) & Yields 93.5% (8)	1904.	1904.	1904.	1904.	1904.	1904.	11424.
Counter Cyclical Payments							
A. Freeze 2002 Base (1) and Yields (5)	1572.	1597.	1759.	1663.	1553.	1427.	9571.
B. Add Min Oilseeds (2) and Yields (6)	1572.	1597.	1759.	1663.	1553.	1427.	9571.
C. Add Max Oilseeds (3) and Yields (6)	1572.	1597.	1759.	1663.	1553.	1427.	9571.
D. Update Base (4) Freeze Yields (6)	1572.	1597.	1759.	1663.	1553.	1427.	9571.
E. Update Base (4) & Yields 70% (7)	1981.	2013.	2216.	2095.	1956.	1798.	12059.
F. Update Base (4) & Yields 93.5% (8)	2012.	2045.	2252.	2128.	1987.	1826.	12251.
Total Payments							
A. Freeze 2002 Base (1) and Yields (5)	3476.	3501.	3663.	3567.	3457.	3331.	20995.
B. Add Min Oilseeds (2) and Yields (6)	3476.	3501.	3663.	3567.	3457.	3331.	20995.
C. Add Max Oilseeds (3) and Yields (6)	3476.	3501.	3663.	3567.	3457.	3331.	20995.
D. Update Base (4) Freeze Yields (6)	3476.	3501.	3663.	3567.	3457.	3331.	20995.
E. Update Base (4) & Yields 70% (7)	3885.	3917.	4120.	3999.	3860.	3702.	23483.
F. Update Base (4) & Yields 93.5% (8)	3916.	3949.	4156.	4032.	3891.	3730.	23675.

Report: Annual Payment for Third Crop

Table 4. Risk Results: Soybeans, Government Payments Calculated Using (Risky) Variable Annual Prices
 These results were calculated using 500 possible combinations of future prices not the user entered prices.

	2002	2003	2004	2005	2006	2007	Total
Direct Payments							
A. Freeze 2002 Base (1) and Yields (5)	0.	0.	0.	0.	0.	0.	0.
B. Add Min Oilseeds (2) and Yields (6)	636.	636.	636.	636.	636.	636.	3815.
C. Add Max Oilseeds (3) and Yields (6)	1017.	1017.	1017.	1017.	1017.	1017.	6104.
D. Update Base (4) Freeze Yields (6)	1017.	1017.	1017.	1017.	1017.	1017.	6104.
E. Update Base (4) & Yields 70% (7)	1017.	1017.	1017.	1017.	1017.	1017.	6104.
F. Update Base (4) & Yields 93.5% (8)	1017.	1017.	1017.	1017.	1017.	1017.	6104.
Counter Cyclical Payments							
A. Freeze 2002 Base (1) and Yields (5)	0.	0.	0.	0.	0.	0.	0.
B. Add Min Oilseeds (2) and Yields (6)	443.	414.	382.	351.	310.	280.	2180.
C. Add Max Oilseeds (3) and Yields (6)	709.	663.	611.	561.	496.	449.	3488.
D. Update Base (4) Freeze Yields (6)	709.	663.	611.	561.	496.	449.	3488.
E. Update Base (4) & Yields 70% (7)	855.	799.	737.	676.	598.	541.	4206.
F. Update Base (4) & Yields 93.5% (8)	855.	799.	737.	676.	598.	541.	4206.
Total Payments							
A. Freeze 2002 Base (1) and Yields (5)	0.	0.	0.	0.	0.	0.	0.
B. Add Min Oilseeds (2) and Yields (6)	1079.	1050.	1018.	986.	946.	916.	5995.
C. Add Max Oilseeds (3) and Yields (6)	1727.	1680.	1628.	1578.	1513.	1466.	9592.
D. Update Base (4) Freeze Yields (6)	1727.	1680.	1628.	1578.	1513.	1466.	9592.
E. Update Base (4) & Yields 70% (7)	1873.	1816.	1754.	1694.	1615.	1558.	10310.
F. Update Base (4) & Yields 93.5% (8)	1873.	1816.	1754.	1694.	1615.	1558.	10310.

Report: Total Annual Payments for all Crops

Table 5. Risk Results: Average Annual Total Government Payments, by Type and Alternative
 These results were calculated using 500 possible combinations of future prices not the user entered prices.

	2002	2003	2004	2005	2006	2007	Total
Direct Payments							
A. Freeze 2002 Base (1) and Yields (5)	2191.	2191.	2191.	2191.	2191.	2191.	13144.
B. Add Min Oilseeds (2) and Yields (6)	2826.	2826.	2826.	2826.	2826.	2826.	16959.
C. Add Max Oilseeds (3) and Yields (6)	2921.	2921.	2921.	2921.	2921.	2921.	17528.
D. Update Base (4) Freeze Yields (6)	2921.	2921.	2921.	2921.	2921.	2921.	17528.
E. Update Base (4) & Yields 70% (7)	2921.	2921.	2921.	2921.	2921.	2921.	17528.
F. Update Base (4) & Yields 93.5% (8)	2921.	2921.	2921.	2921.	2921.	2921.	17528.
Counter Cyclical Payments							
A. Freeze 2002 Base (1) and Yields (5)	1761.	1789.	1988.	1887.	1737.	1592.	10755.
B. Add Min Oilseeds (2) and Yields (6)	2204.	2204.	2370.	2237.	2047.	1872.	12935.
C. Add Max Oilseeds (3) and Yields (6)	2281.	2260.	2370.	2224.	2048.	1875.	13059.
D. Update Base (4) Freeze Yields (6)	2281.	2260.	2370.	2224.	2048.	1875.	13059.
E. Update Base (4) & Yields 70% (7)	2836.	2812.	2953.	2771.	2554.	2339.	16266.
F. Update Base (4) & Yields 93.5% (8)	2868.	2844.	2988.	2805.	2585.	2367.	16457.
Total Payments							
A. Freeze 2002 Base (1) and Yields (5)	3952.	3980.	4179.	4077.	3928.	3783.	23898.
B. Add Min Oilseeds (2) and Yields (6)	5031.	5030.	5197.	5064.	4873.	4699.	29893.
C. Add Max Oilseeds (3) and Yields (6)	5203.	5181.	5291.	5145.	4970.	4797.	30587.
D. Update Base (4) Freeze Yields (6)	5203.	5181.	5291.	5145.	4970.	4797.	30587.
E. Update Base (4) & Yields 70% (7)	5758.	5733.	5874.	5693.	5475.	5260.	33793.
F. Update Base (4) & Yields 93.5% (8)	5789.	5765.	5910.	5726.	5506.	5289.	33985.

- Sum of government payments by alternative for all crops

Report: Annual Payments for Constant Price Scenario Presented for Each Crop

Table 2. Fixed Price Results: Corn, Government Payments Calculated Using Projected Annual Prices
These results were calculated using constant future prices entered by the user and do not reflect any price risk.

	2002	2003	2004	2005	2006	2007	Total
Direct Payments							
A. Freeze 2002 Base (1) and Yields (5)	1904.	1904.	1904.	1904.	1904.	1904.	11424.
B. Add Min Oilseeds (2) and Yields (6)	1904.	1904.	1904.	1904.	1904.	1904.	11424.
C. Add Max Oilseeds (3) and Yields (6)	1904.	1904.	1904.	1904.	1904.	1904.	11424.
D. Update Base (4) Freeze Yields (6)	1904.	1904.	1904.	1904.	1904.	1904.	11424.
E. Update Base (4) & Yields 70% (7)	1904.	1904.	1904.	1904.	1904.	1904.	11424.
F. Update Base (4) & Yields 93.5% (8)	1904.	1904.	1904.	1904.	1904.	1904.	11424.
Counter Cyclical Payments							
A. Freeze 2002 Base (1) and Yields (5)	1972.	1904.	1700.	1360.	1088.	816.	8840.
B. Add Min Oilseeds (2) and Yields (6)	1972.	1904.	1700.	1360.	1088.	816.	8840.
C. Add Max Oilseeds (3) and Yields (6)	1972.	1904.	1700.	1360.	1088.	816.	8840.
D. Update Base (4) Freeze Yields (6)	1972.	1904.	1700.	1360.	1088.	816.	8840.
E. Update Base (4) & Yields 70% (7)	2485.	2399.	2142.	1714.	1371.	1028.	11138.
F. Update Base (4) & Yields 93.5% (8)	2524.	2437.	2176.	1741.	1393.	1044.	11315.
Total Payments							
A. Freeze 2002 Base (1) and Yields (5)	3876.	3808.	3604.	3264.	2992.	2720.	20264.
B. Add Min Oilseeds (2) and Yields (6)	3876.	3808.	3604.	3264.	2992.	2720.	20264.
C. Add Max Oilseeds (3) and Yields (6)	3876.	3808.	3604.	3264.	2992.	2720.	20264.
D. Update Base (4) Freeze Yields (6)	3876.	3808.	3604.	3264.	2992.	2720.	20264.
E. Update Base (4) & Yields 70% (7)	4389.	4303.	4046.	3618.	3275.	2932.	22562.
F. Update Base (4) & Yields 93.5% (8)	4428.	4341.	4080.	3645.	3297.	2948.	22739.

• Payments calculated using producer's constant prices and CC payment rates

Report: Total Annual Payments Calculated for Constant Price Scenario

Table 5. Fixed Price Results: Annual Government Payments, by Type of Payment and Base and Yield Update Alternative
These results were calculated using constant future prices entered by the user and do not reflect any price risk.

	2002	2003	2004	2005	2006	2007	Total
Direct Payments							
A. Freeze 2002 Base (1) and Yields (5)	2191.	2191.	2191.	2191.	2191.	2191.	13144.
B. Add Min Oilseeds (2) and Yields (6)	2826.	2826.	2826.	2826.	2826.	2826.	16959.
C. Add Max Oilseeds (3) and Yields (6)	2921.	2921.	2921.	2921.	2921.	2921.	17528.
D. Update Base (4) Freeze Yields (6)	2921.	2921.	2921.	2921.	2921.	2921.	17528.
E. Update Base (4) & Yields 70% (7)	2921.	2921.	2921.	2921.	2921.	2921.	17528.
F. Update Base (4) & Yields 93.5% (8)	2921.	2921.	2921.	2921.	2921.	2921.	17528.
Counter Cyclical Payments							
A. Freeze 2002 Base (1) and Yields (5)	2194.	2136.	1960.	1605.	1282.	979.	10157.
B. Add Min Oilseeds (2) and Yields (6)	2714.	2657.	2408.	1865.	1311.	979.	11935.
C. Add Max Oilseeds (3) and Yields (6)	2804.	2736.	2417.	1776.	1134.	816.	11684.
D. Update Base (4) Freeze Yields (6)	2804.	2736.	2417.	1776.	1134.	816.	11684.
E. Update Base (4) & Yields 70% (7)	3488.	3403.	3006.	2215.	1427.	1028.	14568.
F. Update Base (4) & Yields 93.5% (8)	3528.	3441.	3040.	2243.	1448.	1044.	14744.
Total Payments							
A. Freeze 2002 Base (1) and Yields (5)	4385.	4327.	4151.	3796.	3473.	3170.	23301.
B. Add Min Oilseeds (2) and Yields (6)	5541.	5483.	5235.	4692.	4137.	3806.	28893.
C. Add Max Oilseeds (3) and Yields (6)	5726.	5658.	5338.	4697.	4056.	3737.	29211.
D. Update Base (4) Freeze Yields (6)	5726.	5658.	5338.	4697.	4056.	3737.	29211.
E. Update Base (4) & Yields 70% (7)	6410.	6324.	5928.	5137.	4348.	3949.	32095.
F. Update Base (4) & Yields 93.5% (8)	6449.	6362.	5962.	5164.	4370.	3966.	32272.

• Sum of government payments by alternative for all crops

Report: Table Summarizing Risk Results by Alternative

Table 1. Risk Analysis: Average Annual Payments Calculated Using (Risky) Variable Annual Prices

Alternatives for Updating	--Variable Crop Price Analysis--			Probability of Each Alternative Ranked First (%)
	Annual Average	Lower 5% Bound	Upper 95% Bound	
A. Freeze 2002 Base (1) and Yields (5)	3983.	3126.	4798.	0.
B. Add Min Oilseeds (2) and Yields (6)	4982.	4048.	5865.	0.
C. Add Max Oilseeds (3) and Yields (6)	5098.	4191.	5973.	0.
D. Update Base (4) Freeze Yields (6)	5098.	4191.	5973.	0.
E. Update Base (4) & Yields 70% (7)	5632.	4498.	6721.	0.
F. Update Base (4) & Yields 93.5% (8)	5664.	4515.	6765.	100.

Annual estimated government payment rates were calculated using 500 alternative price levels for each year. These variable payment rates were used to calculate annual government payments for 6 years. The full range of government payments was used to calculate prediction intervals for payments. There is a 90% chance that annual payments will fall between the 5% and 95% bounds. Probability of each alternative being ranked first is based on the full range of government payments generated from the risk analysis.

- Ranked based on the number of times Alternative earned most govt. payments over the 6 year planning horizon
- 90% confidence intervals shows risk on payments

Report: Table Summarizing Constant Price Results by Alternative

Table 2. No-Risk Analysis: Average Annual Payments Using Fixed Prices and Low and High Price Scenarios

Alternatives for Updating	Fixed Crop Prices	High Prices So Receive Only Fixed	Low Prices So Receive Max CCPs
A. Freeze 2002 Base (1) and Yields (5)	3884.	2191.	5146.
B. Add Min Oilseeds (2) and Yields (6)	4816.	2826.	6302.
C. Add Max Oilseeds (3) and Yields (6)	4869.	2921.	6338.
D. Update Base (4) Freeze Yields (6)	4869.	2921.	6338.
E. Update Base (4) & Yields 70% (7)	5349.	2921.	7181.
F. Update Base (4) & Yields 93.5% (8)	5379.	2921.	7232.

Calculations for the "Fixed Crop Prices" scenario were made using projected annual prices in Input Data Table 4. Prices used for the analysis are either the default projected prices provided in the input screens or the producers projected prices. Payments include both Fixed and Counter Cyclical payments. Calculations for the "High Price" scenario were made assuming that prices are so high that no CC payments were made in any year. This direct payment scenario represents the lowest possible government payments. Calculations for the "Low Price" scenario were made assuming that prices were so low that the maximum CC payments were made each year, thus maximizing government payments.

- **Constant price scenario is reported in column 1**
- **If prices are so high there are no CC payments in column 2**
- **If prices so low CC payments maximum each year in column 3**

Report: Side-by-Side Comparison of Risk and Constant Price Scenarios

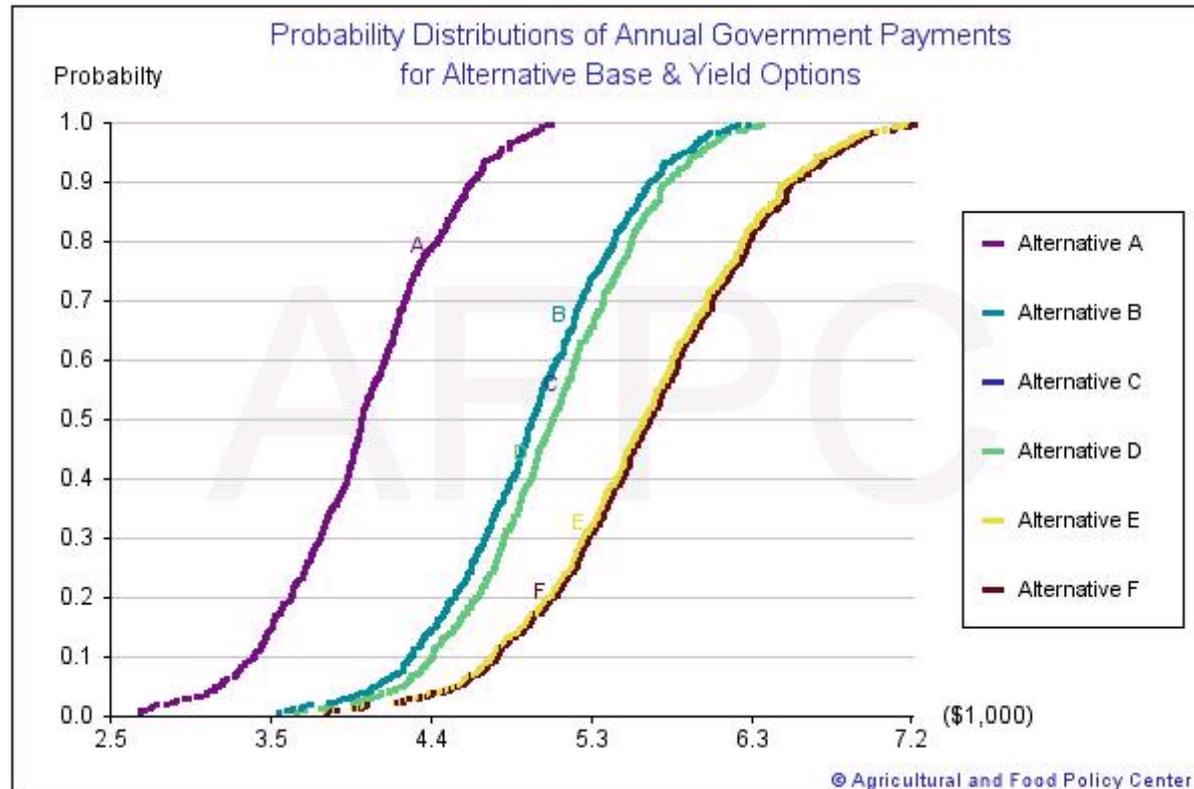
Table 3. Summary: Average Annual Government Payments Calculated Four Ways for The Smith Farm

Alternatives for Updating	--Variable Crop Price Analysis--			--Scenarios With No Price Risk--		
	Annual Average	Lower 5% Bound	Upper 95% Bound	Producers Crop Prices	High Price Received Only Fixed	Low Price Received Max CCPs
A. Freeze 2002 Base (1) and Yields (5)	3983.	3126.	4798.	3884.	2191.	5146.
B. Add Min Oilseeds (2) and Yields (6)	4982.	4048.	5865.	4816.	2826.	6302.
C. Add Max Oilseeds (3) and Yields (6)	5098.	4191.	5973.	4869.	2921.	6338.
D. Update Base (4) Freeze Yields (6)	5098.	4191.	5973.	4869.	2921.	6338.
E. Update Base (4) & Yields 70% (7)	5632.	4498.	6721.	5349.	2921.	7181.
F. Update Base (4) & Yields 93.5% (8)	5664.	4515.	6765.	5379.	2921.	7232.

Calculations for the "Producers Crop Prices" scenario were made using projected annual prices in Input Data Table 4. Prices used for the analysis are either the default projected prices provided in the input screens or the producers projected prices. Payments include both Fixed and Counter Cyclical payments. Calculations for the "High Price" scenario were made assuming that prices are so high that no CC payments were made in any year. This direct payment scenario represents the lowest possible government payments. Calculations for the "Low Price" scenario were made assuming that prices were so low that the maximum CC payments were made each year, thus maximizing government payments.

•Side-by-side comparison of Risk and Constant Price scenarios and the max and min payment scenarios

Report: Risk Graph of the Risky Price Analysis



- Risk averse decision makers prefer the alternative further to the right -- E and F in this case near indifferent

Report: Preparing a Printable Output

[Click here for a printable version of the output \(Adobe Acrobat required\)](#)

[Click here to change your input](#) [Click here to Add/Remove Crops](#) [Restart Analysis Phase](#)

Documentation

Updating Options [Click here for a brief description of the acreage and yield updating options provided in the 2002 Farm Bill.](#)

Commodity Prices [Future commodity prices and therefore Counter Cyclical Payments are uncertain. Click here to read more about how BYA incorporates market price and Counter Cyclical Payment risk.](#)

BYA Documentation [Click here for a brief description of the BYA.](#)

- **Create a printable report in pdf format that can be saved or printed immediately**
- **Go back and change the data for this farm or modify this farm for a similar farm unit**
- **Revising the data and re-running retains existing information for the farm's crops**

Report: Sample of the PDF File Created by BYA for Printing or for Storage

BYA -- Base And Yield Update Option Analyzer for the 2002 Farm Bill
(c) 2002 Agricultural and Food Policy Center, Texas A&M University

Ver. 2002.08.21

Farm Name: The Smith Farm
State: IA
County: Webster
Date 08/24/02

Cropland on the Farm 160.0
Total CRP and WRP Cropland 0.0
Total Double Crop Acres 0.0

Table 1. Actual Input Data : 2002 Production Flexibility Contract (PFC) Acres and Planting History, 1998-2001

Crop Name	2002 PFC Acres	-----Planted Acre History-----				Share of the Crop
		1998	1999	2000	2001	
Wheat	15.0	0.0	0.0	0.0	0.0	1.000
Corn	80.0	80.0	80.0	80.0	80.0	1.000
Oats	15.0	0.0	0.0	0.0	0.0	1.000
Soybeans	0.0	80.0	80.0	80.0	80.0	1.000
Totals	110.0	160.0	160.0	160.0	160.0	

Planted acres history must reflect proven acres for each crop. If irrigated and non-irrigated acres are provided for a crop, the irrigated acres are reported first followed by the non-irrigated acres.

Table 2. Actual Input Data: 2002 PFC Payment Yield, Similiar Farm Payment Yield, and Producer Proven Yield or Production History, 1998-2001

Crop Name	2002 PFC Pymt Yield	Similiar Pymt Yield	--Producer Proven Yields or Production--			
			1998	1999	2000	2001
Wheat	40.0	37.8	0.	0.	0.	0.
Corn	100.0	129.2	140.	80.	135.	160.
Oats	70.0	72.5	0.	0.	0.	0.
Soybeans	0.0	0.0	3600.	2240.	3840.	4000.

Actual annual proven yield (or production) must be provided for each crop. If irrigated and non-irrigated yields are provided for a crop, the irrigated yields are reported first followed by the non-irrigated yields.

Report: End of the Report

[Click here for a printable version of the output \(Adobe Acrobat required\)](#)

[Click here to change your input](#)

[Click here to Add/Remove Crops](#)

[Restart Analysis Phase](#)

Documentation

Updating Options Click here for a brief description of the acreage and yield updating options provided in the 2002 Farm Bill.

Commodity Prices Future commodity prices and therefore Counter Cyclical Payments are uncertain. Click here to read more about how BYA incorporates market price and Counter Cyclical Payment risk.

BYA Documentation Click here for a brief description of the BYA.

- Also at the end of the Report screen the user can access the documentation and get more information about the updating options
- Information on price and CC payment rate risk is also available at this point

Demand for the BYA Decision Aid

- The AFPC BYA was first made available on our web site in mid July on a limited basis to our testers
 - FSA in Washington
 - Texas Extension Specialists and County Agents
 - Revisions were made to improve completeness of output
- Presentation at the FSA National Training on Base and Yield Updating on July 26th
 - Usage on the BYA really took off after that
- We get dozens of calls and e-mails a day from all across the US asking for CD version, and explanations

BYA Usage Since August 1st

- Number of Unique Visitors 16,601**
 - Number of Visits 25,924**
 - Page Transferred 312,776**
 - Hits on BYA Page 528,995**
-
- All stats as of 12 p.m. Sunday August 25, 2002**

BYA Use by State Since August 1st

BYA Activity

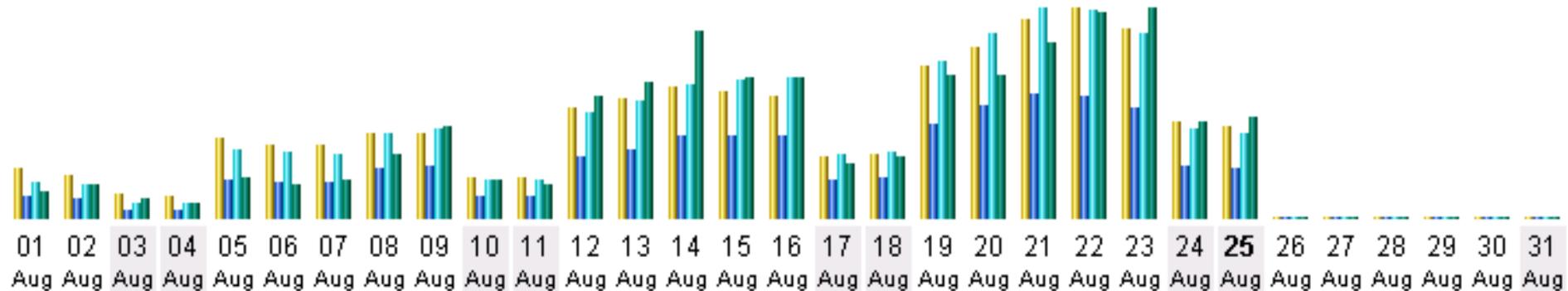
Total Sessions	24218
Total Model Runs	26007
Total Acres	1.40509e+07

State	Total Runs	Total Acres
TX	4824	3.76286e+06
IL	3915	988304
IA	3148	1.00237e+06
AR	1779	1.09052e+06
NE	1741	662325
KS	1423	926777
MN	1343	676164
MO	1312	371895
IN	1272	316578
SD	1007	869351
ND	605	563805

BYA Use by Crop Since August 1st, Irrigated (I) and Non-Irrigated (N)

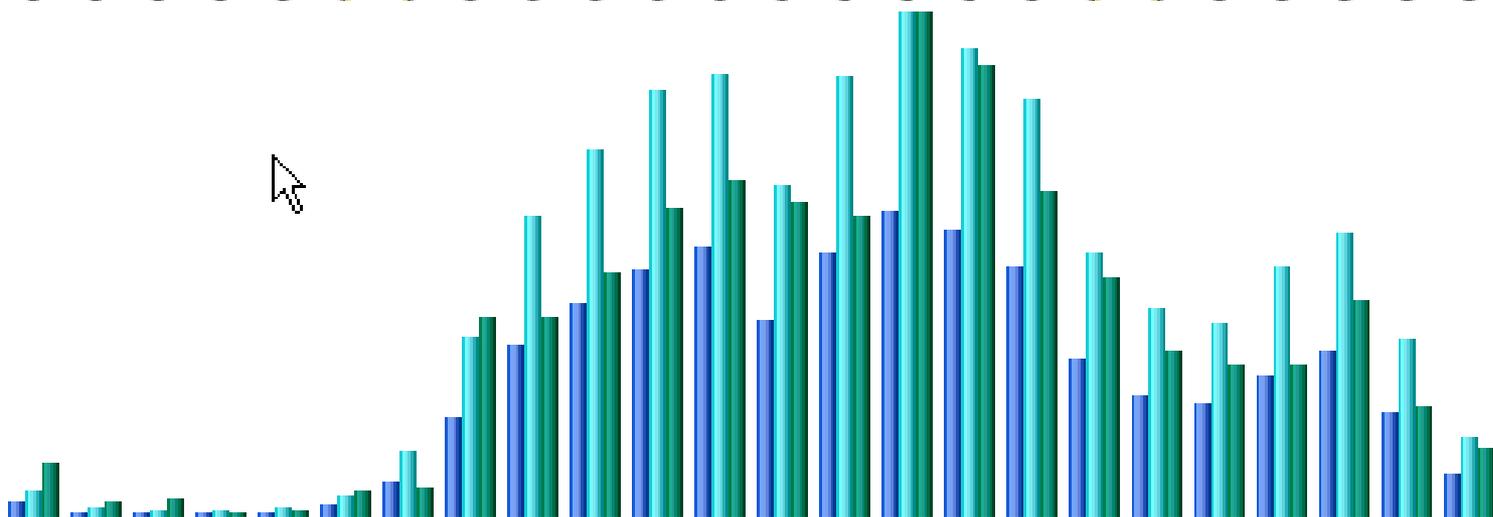
Crop	Total Runs
Corn N	14922
Soybeans N	14162
Wheat N	11107
Sorghum N	5394
Oats N	4156
Corn I	2961
Cotton N	2654
Soybeans I	2370
Cotton I	2064
Wheat I	1761
Barley N	1738
Rice I	1660
Sorghum I	1426
Cotton B	1148
Corn B	969
Sunflowe N	964
Soybeans B	889

Daily BYA Use Since August 1st



Hours

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23



Summary

- **We do not intend to put out a CD version**
- **We will continue to work with FSA to keep calculations correct with respect to the rule changes**
- **We will release a peanut version in October or sooner, we are waiting for the rules to be finalized**
- **We are working with FSA in Kansas City to put this on their web site and in county offices for batch processing**