

October 2002

ARPR 02-17



# Agricultural and Resource Policy Report

Colorado  
State  
University

Extension

Department of Agricultural and Resource Economics, Fort Collins, CO 80523-1172  
<http://dare.colostate.edu/pubs>

## FARM SECURITY AND RURAL INVESTMENT ACT OF 2002: A MANAGERIAL PERSPECTIVE ON CHANGING COMMODITY PROGRAMS

James Pritchett, Andy Seidl, and Stephen R. Koontz <sup>1</sup>

- *FSRIA covers 6 crop years with expenditures of \$19 billion/yr*
- *The Commodity Title increases producer income and reduces risk*
- *DP's and CCP's are made on historical yields and base acres, but LDP's depend on actual production*
- *The 2002 Farm Bill provides 5 base payment yield options for producers to choose among.*
- *A spreadsheet calculator has been developed to assist in comparing alternatives.*
- *For most producers, updating base acres is a good option*

### What's New in the Commodity Title?

The Farm Security and Rural Investment Act of 2002 (the 2002 Farm Bill) mandates several important changes in commodity policy for program crops. Three new facets include a counter-cyclical payment, the opportunity to update base acreage and payment

yields, and the designation of oilseeds as program crops so that they gain additional price and income supports. The following is a brief review of the 2002 Farm Bill with specific emphasis on managerial issues relating to program crops.

The Farm Bill covers 6 crop years (2002-2007) with expenditures approaching \$19 billion annually. Included in the legislation are ten titles: Commodity, Conservation, Trade, Nutrition, Credit, Rural Development, Forestry, Research, Energy and Miscellaneous.

The net effect of provisions in the commodity title is to increase producer income while reducing risk. Income increases and risk reduction come from three support mechanisms. Two mechanisms are retained from the 1996 Farm Bill, loan deficiency payments (LDP's) and direct payments (DP's), whose payment formulas are listed in Figure 1. LDP's are the loan rate minus the posted county price times the bushels of actual production. DP's are the base acres times the payment yield times the DP rate times 85%. Loan rates and the DP rates for program crops are shown in Table 1. Oilseeds (e.g., sunflowers and soybeans) have been designated a program crop so that they now receive a direct payment.

<sup>1</sup> Authors are Assistant Professors and Associate Professor, respectively, Department of Agricultural and Resource Economics, Colorado State University, Ft. Collins, CO, 80523-1172.

Extension programs are available to all without discrimination.

Crop	2002-2007 Direct Rate	2002-2003 Target Price	2004-2007 Target Price	2002-2003 Loan Rate	2004-2007 Loan Rate
Barley \$/bu.	\$0.24	\$2.21	\$2.24	\$1.88	\$1.85
Corn \$/bu.	\$0.28	\$2.60	\$2.63	\$1.98	\$1.95
Oats \$/bu.	\$0.02	\$1.40	\$1.44	\$1.35	\$1.33
Sorghum \$/bu.	\$0.35	\$2.54	\$2.57	\$1.98	\$1.95
Soybeans \$/bu.	\$0.44	\$5.80	\$5.80	\$5.00	\$5.00
Sunflowers \$/lb.	\$0.008	\$0.098	\$0.101	\$0.096	\$0.093
Wheat \$/bu.	\$0.52	\$3.86	\$3.92	\$2.80	\$2.75

**Figure 1.** Payment Calculations for the 2002 Farm Bill Commodity Programs

**Loan Deficiency Payment** = (Loan Rate - Posted County Price) × Actual Production

**Direct Payment** = Base Acres × Payment Yield × Direct Rate × 85%

Where Payment Yield is the PFC yield from the 1996 Farm Bill.

**Counter-Cyclical Payment** = Base Acres × Payment Yield × Counter-Cyclical Rate × 85%

Where Payment Yield is either PFC yield from the 1996 Farm Bill or one of the two new methods from the 2002 Farm Bill.

**Counter-Cyclical Rate** = (Target Price - Direct Rate) - U.S. Average Market Price

= Effective Price - U.S. Average Market Price

if the U.S. Average Market Price is less than the Target Price. There are no counter-cyclical payments if the market price is above the target price. The maximum counter-cyclical rate is the effective price less the loan rate.

Counter-cyclical payments (CCP's) are a new income support in the 2002 Farm Bill. Producers receive a CCP when market prices fall below the target price. However, the DP is counted toward the CCP. Target prices have been set by Congress and are listed in Table 1. The formula for the counter-cyclical payment is shown in Figure 1, and is the crop's base acres time the payment yield times the CCP rate times 85%. The CCP rate is the target price minus the direct payment rate (the difference is also called the effective price) minus the greater of the loan rate or the marketing year average price as determined by USDA. Total counter-

cyclical payments will be estimated at the beginning of the marketing year with 35% of the estimated payment made at that time, 35% of the payment made roughly six months later, and the remainder made at the end of the marketing year. Producers may have to repay portions of the initial two payments if prices increase late in the marketing year.

#### **What are my options?**

Of particular interest are opportunities for updating base acres and payment yields that determine DP's and CCP's. Producers are given a one-time chance to

update base acreage used in DP's and CCP's, update payment yields used in CCP's, and add new program crops to their bases. Updating acreage of some crops or adding oilseeds may require reducing the acreage of other program crops. If oilseeds are added to the producer's base acreage then a method of determining payment yields is required. There are five options for producers to choose from but there are also two choices within option four. The choices are summarized in Figure 2.

For DP's, producers retain the payment yield from their most recent production flexibility contract, but are given a one-time chance to update their base acreage. For CCP's, producers will have an opportunity to update their payment yields in addition to any base acreage updates. Figure 2 illustrates a way to view this updating opportunity.

Following Figure 2, two base options exist. The first is to keep the production flexibility contract (PFC) base. If the PFC base is maintained, producers can choose to add oilseed base (**Yes Oilseed** in Figure 2). Oilseed base is added under the following restrictions. First, if producers choose to retain all of their PFC base without offset (**No Offset** in Figure 2), the maximum oilseed base acres cannot exceed the average difference between the yearly covered crop planting (including oilseeds) minus the PFC acres. Producers may also choose to offset any of their PFC base (**Yes Offset** in Figure 2) and substitute oilseed base. At no time can the oilseed base exceed the average planting of the oilseed from 1998-2001.

The second base acreage alternative found in Figure 2 is to update base to reflect the average planting and prevented planting from 1998 to 2001. Producers may update payment yields in one of two ways, but the same payment yield update method must be used for all crops. The first alternative calculates the payment yield as the PFC payment yields plus 70% of the difference between the PFC yield and the average yield for 1998-2001 (**70% of Difference** in Figure 2). A second alternative sets the payment yield as 93.5% of the average yield between 1998-2001 (**93.5% of New** in Figure 2).

All told, five base payment yield options exist, and a spreadsheet calculator has been developed to assist in comparing alternatives. The spreadsheet is located at <http://dare.agsci.colostate.edu/pritchet/calculator.xls>.

No one alternative is best for all farm operations, so it is important for producers to work through various choices prior to Farm Service Agency (FSA) sign-up. It's also true that the "best" option will depend on prices that won't be known until after the sign-up, and the scenarios that producers examine should include several different potential prices. The main thing producers need to think about is the importance of DP's versus CCP's and the level of CCP's if future commodity program crop prices are low. While it's true that there is no a strategy that is best for all farms, a few rules of thumb may help when comparing alternatives. For instance:

- DP's are made regardless of market prices. Consequently, a producer might look at an option of direct payments in the absence of CCP's. Looking at the alternatives under this scenario assumes average prices are greater than the target price for the duration of the Farm Bill.
- A more bearish outlook assumes prices will be below loan rates for the duration of the Farm Bill. In this instance, CCP's are at their maximum, and are equal to the effective price minus the loan rate. Looking at the alternatives under this scenario assumes average prices are less than the loan rate for the duration of the Farm Bill.
- For most producers, updating base acres is a good option unless covered crop plantings have been substantially reduced or the farm has suffered substantially lower yields in 1998-2001.
- If a producer chooses to update bases and payment yields, one payment yield method (either 70% difference or 93.5% of the new) will always dominate the other, regardless of the price scenarios.
- DP's and CCP's are made on historical yields and base acres. Thus, the producer maintains total planting flexibility regardless of the option chosen. Consequently, DP's and CCP's do not impact planting decisions though producers may seek to maintain a planting history for future Farm Bill updates.
- LDP's depend on actual production, so the level of loan rates should be considered when making planting decisions.

**What needs to be done?**

The Farm Service Agency will mail base acreage and yield histories to producers so they can examine relevant information for the update. Producers may begin signing

up for the 2002 Farm Bill on October 1<sup>st</sup> with sign-up ending on April 1<sup>st</sup>, 2003. Producers will need to evaluate the different base and yield option updates, and communicate their choice to FSA.

**Figure 2.** 2002 Farm Bill Commodity Program Option Descriptions.

Option 1: Retain PFC acreage.

Option 2: Retain PFC acreage, plus oilseeds without PFC offset.  
Base acre limitations applied to oilseeds.

Option 3: Retain PFC acreage and add oilseeds with maximum PFC offset.  
Maximize oilseeds and apply any base limitation to PFC crops.

Option 4: Update base acres with 1998 - 2001 crop history.

Two yield options are available for computing counter-cyclical payments

A) Payment yield is the PFC payment yields plus 70% of the difference between the PFC yield and the average yield for 1998-2001.

B) Payment yield as 93.5% of the average yield between 1998-2001.

Option 5: Retain PFC acreage and add oilseed acreage.

Partial offset of oilseed base and partial offset by PFC crops.

Note: yield updates are for counter-cyclical payments only.

**Figure 3.** Schematic of 2002 Farm Bill Update Options.

Base Acreage Alternatives

