

Commodity Programs for Crops

Farm programs administered by the U.S. Department of Agriculture have had many objectives over the years. Protecting farmers from the risk of falling commodity prices has been one of the most important ones. A number of different mechanisms have been tried, including price supports, storage loans, supply control incentives, and various types of diversion and deficiency payments. The Food, Conservation, and Energy Act of 2008 contains five different types of farm commodity payments, each with a different relation to market prices, and a different impact on producers' marketing and risk management strategies.

Direct Payments

Direct payments (DPs) were instituted in the 2003 farm bill and continued in the 2008 bill with very few changes. The size of the direct payments is determined by the acres in each crop base and the program yield for that crop. A fixed rate per bushel is paid, \$.28 for corn, \$.44 for soybeans, and \$.52 for wheat, for example. However, direct payments are made on USDA proven yields from the early 1980s, and on just 85 percent of the crop base acres. For the 2009, 2010, and 2011 crops the direct payment will be made on 83.3 percent of the base acres. In 2012, the rate goes back up to 85 percent. Based on current yields, actual payments are considerably less than the stated rate per bushel. Up to 22 percent of the annual direct payment can be received after December 1 prior to the crop year, and the remainder after the following October 1. Direct payments are limited to \$40,000 per individual per year.

The most important feature of direct payments is that they are essentially fixed through 2012, now that the crop bases and program yields have been established. What happens to acres, yields, and prices each year will not change their value. So, direct payments have essentially no effect on price or production risk, except that they provide an extra infusion of cash in addition to the revenue received from marketing grain. See Example 1.

Counter Cyclical Payments

One of the most discussed features of the new commodity programs has been the counter cyclical payment (CCP). Counter cyclical payments are paid when the average national marketing year price is below \$2.35 for corn, \$5.36 for soybeans, and \$3.40 for wheat. These threshold prices are scheduled to increase to \$5.56 for soybeans and \$3.65 for wheat in 2010. The annual price is an average of cash prices paid during the 12 months following harvest, starting in September for corn and soybeans and June for wheat. It is weighted by the quantity of grain sold in each month and in each state. However, there is no guarantee that producers will receive the national average price when they sell their crops. Cash prices in any particular location may typically average either above or below the national price, due to basis patterns. Or, the producer may sell and then watch prices trend higher later, raising the season average price.

Counter cyclical payments are made in up to two installments during the marketing year. Up to

Example 1. Direct Payment

	Corn	Soybeans	Wheat
Acres in crop base	100	100	100
x Program yield (old)	130 bu/acre	40 bu/acre	50 bu/acre
x Direct payment rate	\$.28 per bu.	\$.44 per bu.	\$.52 per bu.
x 83.3 percent	.833	.833	.833
= Direct payment per year	\$3,032	\$1,466	\$2,166
First installment (up to 22%)	\$667	\$323	\$477
Second installment	\$2,365	\$1,143	\$1,689

40 percent of the projected payment can be requested after the first half of the marketing year, and the remainder as soon as the actual total payment is known. Final payment rates are set at the difference between the final season average price and the trigger prices mentioned above. Of course, if price projections are low early in the marketing year and then rise, producers who take the advance payments may have to repay some or all of them later.

The maximum payment rates are \$.40 per bushel for corn, \$.36 per bushel for soybeans, and \$.65 per bushel for wheat. However, payments are based on only 85 percent of the base acres for each crop. Moreover, program yields are only 93.5 percent of 1998 to 2001 average farm yields reported to Farm Service Agency (FSA), or possibly even less if old crop bases were retained. Thus, for each \$.10 that market prices fall below the trigger levels, the actual counter cyclical payment is only about \$.08 per bushel or less. There is a total payment limit of \$65,000 per year for each individual for counter cyclical payments.

In addition, the bushels for which counter cyclical payments are made are based on historical crop acres and yields, not current production. For example, if a farm has a 100 percent corn base but is planting 50 percent corn and 50 percent soybeans now, the counter cyclical payment provides double price risk protection for corn, but none at all for soybeans. So, while counter cyclical payments are tied somewhat to commodity prices, they do not take the place of forward pricing tools or crop revenue insurance when it comes to price risk management. See Example 2.

Loan Deficiency Payments

When grain prices are low, grain producers can apply for loan deficiency payments (LDP). Any time that the local market price, as measured by the daily posted county price (PCP) recorded in each FSA office, falls below the county loan rate for a given commodity, a producer can apply for a loan deficiency payment equal to the difference. Each county has slightly different loan rates, which reflect local basis patterns. There is no maximum LDP per bushel

Example 2. Counter Cyclical Payment

	Corn	Soybeans	Wheat
CCP trigger price	\$2.35 per bu.	\$5.36 per bu.	\$3.40 per bu.
- Season average price (example)	\$2.12 per bu.	\$5.10 per bu.	\$3.00 per bu.
= Counter cyclical payment rate	\$.23 per bu.	\$.26 per bu.	\$.40 per bu.
x Acres in crop base	100	100	100
x Program yield (new)	140 bu/acre	46 bu/acre	60 bu/acre
x 85 percent	.85	.85	.85
= Counter cyclical payment	\$2,737	\$1,017	\$2,040
First payment (up to 40%)	\$1,095	\$407	\$816
Second payment (remainder)	\$1,642	\$610	\$1,224

Example 3. Loan Deficiency Payment

	Corn	Soybeans	Wheat
County loan rate (example)	\$1.95 per bu.	\$5.00 per bu.	\$2.75 per bu.
- Posted county price (example)	\$1.72 per bu.	\$4.65 per bu.	\$2.40 per bu.
= Loan deficiency payment rate	\$.23 per bu.	\$.35 per bu.	\$.35 per bu.
x Harvested acres	100	100	100
x Harvested yield	160 bu./acre	50 bu./acre	70 bu./acre
= Loan deficiency payment	\$3,680	\$1,750	\$2,450

or payment limitation per individual. The average U.S. loan rates for corn and soybeans are \$1.95 and \$5.00, respectively, the same as under the 2002 farm bill. The average loan rate for wheat will increase from \$2.75 to \$2.94 starting in 2010.

The PCP is based on a 30-day moving average of specific futures market prices and interior terminal prices, and the same basis differentials as the county loan rates. Thus, for a particular crop the loan deficiency payments are the same in all counties on a given day.

Payments are made on bushels that have not yet been sold or “LDPed.” Production can be forward contracted or hedged, but the producer must still have “beneficial interest” in the grain, which requires (1) control of the commodity, (2) risk of loss in case of damage to the commodity, and (3) title to the commodity. Generally, beneficial interest begins when the crop is harvested and ends when it is delivered for sale.

The number of bushels eligible for a loan deficiency payment can be determined in several ways.

Field direct LDP: grain is sold directly from the field to an elevator, warehouse, processor, etc. The payment is based on the actual bushels delivered, and the payment rate is the LDP available on the day of delivery or the last FSA working day.

Certified LDP with later sale: the producer certifies the number of bushels in farm storage and picks the date to apply for the LDP. Actual bushels are certified once the grain is sold.

Measured LDP with a later sale: for a small fee the FSA will measure stored grain and certify the number of bushels. This is recommended for grain that will be fed on the farm.

Warehouse stored LDP: the producer stores grain in a warehouse and certifies the bushels based on the warehouse receipts.

Because loan deficiency payments are paid on the bushels actually produced each year, they provide very direct risk protection against low prices. Astute marketers will attempt to apply for LDPs when the market price is lowest, then employ all the usual marketing tools to try to sell at a higher net price. Of course, producers who don't sell on the same day the LDP is determined run the risk of the market trending lower after sales are made. Hedges, forward contracts, and futures options can be used to control price risk after loan deficiency payments have been established. See Example 3.

Marketing Loans

Marketing loans are also available under the 2008 legislation, just as under previous farm bills. Instead of applying for a loan deficiency payment, the owner of the grain can obtain a loan equal to the county loan rate on each bushel. This loan must be repaid within 9 months, plus interest at the current FSA rate, which is usually below market rates. However, at any time, the borrower has the option to repay only the posted county price per bushel if that is less than the loan rate plus interest, and the rest of the original loan and interest are forgiven. Thus, the county loan rate actually serves as a minimum guaranteed price. The “marketing loan gain” available is essentially the same as the value of a loan deficiency payment if both are executed on the same day. No payment limitation applies.

A marketing loan can be applied for until May 31 for corn and soybeans and March 1 for wheat. The borrower has several choices for repaying the loan.

1. Repay the original loan plus interest. This is usually done when posted county prices are above the original loan rate.
2. If the PCP is below the original loan rate, the interest is waived and the loan repayment is based on the current PCP instead of the original loan rate.
3. The loan can be repaid with generic commodity certificates at the current PCP. Certificates can

be purchased from FSA and then used to repay the marketing loan at the same value. This nets the same dollars as simply paying back the loan.

4. The commodity under loan can be forfeited to the USDA, and the loan is cancelled. No gain is counted against the payment limits. This option provides the same results as purchasing generic certificates, but does not allow the possibility of later sale of the grain, so is rarely used.

Grain that is “under loan” cannot be sold, but can be priced for future delivery using any of the available marketing tools. Grain can be sold on the open market once a Marketing Authorization has been obtained from the county FSA office. See Example 4.

The advantage of using the “loan and lock” strategy is that if corn prices do not increase during the 60-day period, the producer can simply let the locked-in price expire and is not obligated to repay the marketing loan until the 9-month loan period ends. Or, the loan can be paid off at a lower PCP. The ability to lock in a price at which to repay the marketing loan for 60 days provides the same price protection as a put option, but at no cost.

This strategy can work very well for grain that has “carry” in the futures market, that is, when cash prices promise to increase during the post-harvest storage period. Producers can forward price corn under loan for, say, March delivery and capture the carry in the market by locking in a loan repayment rate in January. If the corn market comes under

Example 4. Marketing Loan

	Corn	Soybeans	Wheat
Harvested acres	100	100	100
x Harvested yield	160 bu./acre	50 bu./acre	70 bu./acre
x County loan rate (example)	\$1.95 per bu.	\$5.00 per bu.	\$2.75 per bu.
= Marketing loan obtained			
Example 4a (PCP below loan rate)	\$31,200	\$25,000	\$19,250
PCP on repayment date	\$1.72 per bu.	\$4.65 per bu.	\$2.40 per bu.
Amount to repay (PCP x bushels)	\$27,520	\$23,250	\$16,800
Marketing loan gain			
Example 4b (PCP above loan rate)	\$ 3,680	\$ 1,750	\$2,450
PCP on repayment date (example 2)	\$2.25 per bu.	\$6.00 per bu.	\$3.00 per bu.
Amount to repay (100% of loan)	\$31,200	\$25,000	\$19,250
Interest to pay (@3% for 6 months)	\$ 468	\$ 375	\$ 289

Locking in the Loan Rate

If the posted county price falls below the county loan rate, a producer can “lock in” the PCP for up to 60 days on any day prior to 14 days before the expiration of the 9-month marketing loan. If prices go higher during this 60-day period, the bushels can simply be sold and the loan paid off at the locked-in PCP rather than the current PCP. The price can be locked in for any number of bushels under loan, but this option can be used only once on each bushel. No interest would be paid under this strategy.

pressure and the PCP falls below the locked-in price, the producer can simply wait until the lock expires and repay the marketing loan at the lower price using the proceeds from the sale of the crop.

The example illustrates how a marketing loan gain can be “locked in” for 60 days whenever the PCP is below the loan rate (example 5a). However, if the PCP near the end of the 60-day period is lower than the locked-in price, the producer can simply let the lock expire and repay the loan at an even lower rate (example 5b).

Example 5. Locking in the PCP

	Corn	Soybeans	Wheat
Harvested acres	100	100	100
x Harvested yield	160 bu./acre	50 bu./acre	70 bu./acre
x County loan rate	\$1.95 per bu.	\$5.00 per bu.	\$2.75 per bu.
= Marketing loan obtained	\$31,200	\$25,000	\$19,250
Locked in PCP on January 1	\$1.72	\$4.65	\$2.40
Example 5a. PCP goes higher			
PCP on February 28 (before 60 days)	\$2.25	\$6.00	\$2.75
Repay loan at locked-in PCP	\$1.72	\$4.65	\$2.40
Amount to repay (PCP x bushels)	\$27,520	\$23,250	\$16,800
Marketing loan gain	\$3,680	\$1,750	\$2,450
Example 5b. PCP goes lower			
PCP on March 3 (after 60 days)	\$1.65	\$4.40	\$2.15
Repay loan at new PCP	\$26,400	\$22,000	\$15,050
Marketing loan gain	\$4,800	\$3,000	\$4,200

Average Crop Revenue Election

Under the new bill producers of USDA program crops such as soybeans, wheat, and corn have the option to enroll in a new counter cyclical revenue plan. The program is called Average Crop Revenue Election, or ACRE for short. It is being offered as an alternative to the counter cyclical price program that was introduced in the 2003 farm bill, but it is based on gross revenue (commodity price times yield) instead of price only.

ACRE uses a combination of state average yields, farm level yields, and the national marketing year price to determine levels of revenue guarantees and payments for each covered commodity. There are two revenue triggers that have to be met before any ACRE payments are generated, one at the state level and one at the farm level. To trigger a payment under ACRE the "actual" revenue for both the state and the farm must be less than their corresponding guarantees. The actual revenues are the current marketing year price multiplied by the state average yield and the actual farm level yield, respectively. If both triggers are reached, the payment to the farm will be the difference between the state guarantee and the state actual revenue.

Producers who sign up for ACRE will forfeit 20 percent of their current direct payments through 2012. They also will give up any potential price counter cyclical payments, and the loan rate used to calculate their loan deficiency payments or marketing loans will be lowered by 30 percent. The loss of potential CCPs and LDPs may not be too critical, because if market prices fall enough to trigger those payments it is likely that the ACRE payment will be at least as large.

Although the ACRE program may resemble crop revenue insurance, there are some important differences. The ACRE guarantees are based on longer term average prices and yields, so they will not fluctuate as much from year to year as crop insurance guarantees. In fact, ACRE regulations state that the guarantees cannot increase nor decrease more than 10 percent each year. This helps accomplish the fundamental goal of ACRE, which is to stabilize gross revenues over the next 4 years.

On the other hand, one of the two ACRE guarantees and the size of the payment are based on state level yields, not farm yields like most crop insurance policies. ACRE does not protect a farmer who has a poor production year when the state as a whole does

not. In addition, ACRE revenue uses the marketing year cash price to calculate actual revenue while crop revenue insurance uses futures prices at harvest time. So, while ACRE payments can be a useful risk management tool for sharply falling prices or widespread yield losses, they do not replace farm level crop insurance protection.

More information is available in Information File A1-45, Average Crop Revenue Election (ACRE).

Supplemental Revenue Assistance

The 2008 farm bill created an Agricultural Disaster Trust Fund. A major part of this fund will finance Supplemental Revenue Assistance (SURE) payments, which are designed to supplement the protection producers can purchase from private crop insurance companies.

Farmers who have land in a county that has been declared a “secretarial designated” disaster county, or land in a county that is contiguous to a disaster county, may be eligible to receive a SURE payment. Farming operations not in eligible counties also can qualify if they have more than a 50 percent loss in crop revenue due to weather related causes.

SURE is a revenue guarantee program, similar to crop revenue insurance without the increasing guarantee feature. The SURE guarantee is simply the sum of all the crop insurance guarantees purchased for the current crop year, increased by 15 percent. The SURE “actual revenue” includes the actual number of bushels harvested for each crop valued at the average cash marketing year price as determined by the USDA. In addition, the actual revenue includes 15 percent of any direct payments, counter cycli-

cal payments, ACRE payments, and loan deficiency payments received, and 100 percent of any crop insurance payments received. If the actual revenue calculation is below the SURE guarantee, the producer will be paid 60 percent of the difference.

All guarantees and actual revenues under SURE are calculated as the sum for all crops and in all counties involved in the “farming operation,” even if land in more than one county or state is involved. Payments are not made for losses to individual crops or insurance units, but all crops must be covered by a multiple peril crop insurance policy or under the Noninsured Assistance Program (NAP) offered by FSA.

More information about SURE is available in Information File A1-44, Supplemental Revenue Assistance.

Summary

Loan deficiency payments and marketing loans provide a price floor for bushels actually produced. Counter cyclical payments provide some additional price protection, and direct payments are unrelated to price movements. SURE and ACRE payments protect gross revenue from crops. When cash prices are near or below USDA loan rates, producers should watch markets closely in order to maximize loan deficiency payments or the gain on repayment of marketing loans. Until LDPs are locked in, downside price risk is offset by the loan rate. Once LDPs have been determined, other pricing tools must be used in order to limit market risk on unsold grain. The PCP “lock-in” can be used to fix a maximum repayment price for marketing loans for up to 60 days.

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