The Non-Wonk Guide to Understanding Federal Commodity Payments

2005 Edition

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A Special Thanks

Almost everything that I know about commodity policy I learned from two people. David Grant is a cotton, soybean and, until recently, peanut farmer farming near the border of North Carolina and Virginia. Benny Bunting is a farmer and farm advocate from Oak City, NC. Through his tireless work on behalf of farmers, Benny has become one of the foremost experts on federal lending regulations in the country. I owe both these eastern North Carolina farmers a great debt of thanks, and have the greatest respect for them.

Photos: Scott Marlow (pages 5, 10, 11, 18, 19, 24, 25, 28, 29)
Rob Amberg (cover, 3, 4, 6, 8, 9, 12, 21, 23, 26)

RAFI-USA
Rural Advancement Foundation International—USA

The Rural Advancement Foundation International—USA is a nonprofit, non-governmental organization which promotes sustainability, equity, and diversity in agriculture through policy changes, practical assistance, market opportunities, and access to resources. We trace our roots back to the 1930's, and we continue to address issues of agriculture from the local to the global levels. RAFI –USA plays a leadership role in responding to major agricultural trends and creating a movement of farm, environmental, and consumer groups to:

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Protect the diversity of plants, animals, and people in agriculture, and
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When President Bush signed the 2002 Farm Bill into law on May 13, 2002, he said that this huge piece of legislation "preserves the farm way of life for generations." Reaction across the country was far less confident. Newspapers called the measure "a shockingly awful farm bill that will weaken the nation's economy," (Washington Post 5/2/2002) "a 10-year, $173.5 billion bucket of slop," (Wall Street Journal, 5/2/02) and "a gravy-train for mega farms and corporations." (Greensboro News Record 5/15/02)

While many found good things to say about the many provisions for conservation spending and other programs, the majority of the criticism, and the bulk of the $100 billion price tag, were aimed at programs to support the price of commodities. Commodity programs have, in recent years, become a lightning rod for groups on all points on the political spectrum. As this debate heats up heading into the next farm bill, it is important to understand both the aggregate effects of the program and the experience of the individual farmer, as he or she struggles to make a living and send their kids to school.

Commodity programs go back more than 75 years. In the wake of the Depression and the Dust Bowl, and amid concerns of rural poverty, many of the commodity program mechanisms that we deal with today were established in the Agricultural Adjustment Acts of 1933, 1938 and 1949, and the Commodity Credit Corporation Act of 1948.

The commodity programs were established to address many of the same issues that we face today - providing farmers a fair return in unstable, and often unfair, markets while providing for the conservation of natural resources. Over time, commodity programs have become a convoluted mix of old ideas and new, theories and mechanisms introduced over 100 years ago and very recently.

This publication is an attempt to explain how field crop commodity programs work, and what these programs mean to the budgets of family farmers. We will go through the payments that farmers receive, how they are calculated, and how they fit together.

The Simple Part

There are, in essence, three ways to establish a fair price for the farmer. You can control supply, and as we all learned in intro economics, when supply goes down, price goes up. You can establish and enforce a specific price in the marketplace. Or you can simply pay the farmer the difference between the current price, and what the government thinks is fair. That's pretty much it. Control supply, establish price, pay the difference. All of the complex commodity programs are designed to do one of those three things.

Which one of those three things they do goes a long way in determining how much of the price comes out of the market and the buyer's pocket, and how much comes out of the tax-payer's pocket. Over time, the government has moved away from supply control and establishing a price, and toward simply paying the difference. It is therefore no surprise that the taxpayer share of the bill has increased significantly.

In this publication, we will focus on how the government makes up the difference between the market price paid to farmers and what Congress determines is a fair price. Programs that limit supply or establish a price, such as the dairy and sugar programs, still exist, but they are much more complicated and we're not going to explain them here.

Important Note

Because many of these programs were established in the 1930's, they retain more than just the crop profile of 1930's agriculture. Programs that control production also control who can produce, to the extent that commodity programs have limited expansion of production beyond 1930's histories, they have also retained production in the hands of those who controlled production in the 1930's. Ownership of production quota and base has been an important factor in farm survival and success, and so has been a barrier to the success of minority and limited resource farmers. This paper looks at the experience of the individual farmer receiving commodity payments, not at the aggregate effects of commodity programs. These effects, however, are very important to acknowledge.

What Are Commodities?

For the most part a commodity is anything that is traded. For the purposes of this overview, commodities are tradeable, generally non-perishable goods that are regulated by Federal programs under the commodity title of the U.S. farm bill. Different crops are included in different sections of the Farm Bill, so the list can change depending on which specific programs are included or excluded. The full list of commodities is on the right but the major commodities are cotton, wheat, corn, soybeans, rice, sugar, barley, oats, and sorghum.

Federal Commodity List

Wheat
Corn
Sorghum
Barley
Oats
Cotton
Rice
Soybeans
Oilseeds
Milk
Peanuts
Wool
Beet
Cane Beet
Sugar
Mohair
Honey
Dry Peas
Lentil
Chickpeas

Why these commodities?

People frequently look at the list and ask why specific commodities are on the list or not. For instance, why mohair and honey, but not tomatoes or apples? In general, commodities are on or off the list based on three things. First, most of these programs were established in the 1930's, and so the commodities that are included reflect the important traded commodities at that time. Once established, it is politically difficult to eliminate a program that farmers have come to depend on, so the list has remained relatively stable. Second, the marketing assistance loan, which we will see in a couple pages is a major part of the commodity payments, focused on the ability for farmers to store their commodities to obtain higher prices. Therefore only commodities that could be stored for a significant amount of time (that's the non-perishable part above) were eligible. And third, there is always a political battle over inclusion, exclusion, and levels of support. Over time, some commodities have had more political support than others, and therefore have been more successful at setting favorable terms for their support programs than others.

The Not So Simple Part

For most commodities, a farmer's payment (FP) is calculated using the formula below:

FP = (DPR x (base acres x 85%) x base yield) + (TP - (AMP + DPR) x (base x 85%) x base yield) + (LR-LRR x yield)

The goal of this publication is that by the end, this formula will make sense to you.

This formula applies to commodities that have a deficiency payment type program, including corn, wheat, soybeans, cotton and peanuts. It does not apply to commodities that have other forms of programs, like dairy and sugar. As I said before, I'm not going there.

The next several sections will explain what the different parts of this formula mean, including a bit about where they came from. At the start of each section, we will highlight which terms in the equation will be explained. That way, when you start working though the formula at the end, if something doesn't make sense to you, you can jump back to the section that explains it. The sections follow a rough chronological order of the development of commodity policy, so that while you see the pieces of the equation, you also see a rough picture of the development of U.S. commodity policy over the last 80 – 100 years. At the end of the publication, we put all the equations to use, by applying them to a working farm example.

Base

FP = (DPR x (base acres x 85%) x base yield) + (TP - (AMP + DPR) x (base x 85%) x base yield) + (LR-LRR x yield)

Some of the first commodity / conservation programs paid farmers to take land out of production. Early conservation programs served the double purpose of conserving marginal land, and reducing the supply by reducing acreage in production. In order for "set-asides" to be successful, the government had to establish how much each farmer had been producing. Farmers were required to document their production acreage with the USDA each year. Their production history became their baseline level, or "base" for each crop produced on each farm.

Originally base was simply calculated as number of acres. However, as farming techniques improved and yields rose, it was recognized that simply reducing acreage didn't necessarily reduce supply, and so a yield history was established as well.

Base is your production history, and includes both acreage and yield per acre.
Base is associated with a piece of land, not a farmer.

For the purpose of our formula, each farmer has base acres and yield for each of the program crops that he or she farms. Base is established according to legislation in the farm bill, either the average of a specific set of years or a running average (usually 4 of the last 5 years). The shift from a running average to the average of a set of years was part of an effort to free up farmers to follow markets. When a farmer had a running average for their base, they had to plant the same crops over and over to maintain that base. In the 2002 Farm Bill, farmers had the option of updating their base to the average of 1998 through 2001, or could stick with their old average.

Base is associated with a specific piece of land, and moves with it if it is bought, sold, or rented, although in some situations base can be rented on its own. One piece of land can have only as much base acreage as there is actual acreage, so you can't have 300 acres of corn base and 200 acres of soybean base on a 400-acre farm.

The decision of whether or not to update base, or to switch a piece of land from one commodity base to another is very complicated. Which will be more profitable, peanuts or cotton? Will the decoupled payments make up for the difference? (Don't worry, we'll get to decoupled payments in a minute.) A farmer has to guess where they and the markets are headed over the next 7 to 10 years.

Marketing Assistance Loans (MAL) and the loan rate.

FP = (DPR x (base acres x 85%) x base yield) + (TP - (AMP + DPR) x (base x 85%) x base yield) + (LR - LRR x yield)

It was recognized back in the 1930's that farmers were most likely to sell their products at the time of greatest supply, and therefore the lowest price. Because farmers generally get paid once a year, when they sell the crop, they usually cannot wait until prices go up. Non-recourse marketing assistance loans were established in the Agricultural Adjustment Act of 1933 to assist farmers in holding their crops to take advantage of price cycles.

When the farmer harvests his or her crop, they can take out a marketing assistance loan, using the crop as collateral. The value of the loan is the loan rate (LR) for that commodity, which is set by legislation. If prices go up, the farmer sells the crop and pays back the loan plus a small amount of interest.

If prices go down, the farmer can have the loan cancelled, forfeiting the crop to the government without additional liability. The government has no recourse other than to take possession of the crop, which is why they are also referred to as "non-recourse" loans. The government then either stores the commodity until prices rise, or uses it for other purposes such as food aid. Many foreign aid and nutrition programs started as ways to move surplus commodities.

Before 1985, marketing assistance loans had an additional benefit. Because the government removed the crop from the market when the price fell below the loan rate and did not sell below that rate, the loan rate served as a floor for prices. Because farmers could always receive a non-recourse loan, there was no reason someone would sell the crop at below the loan rate.

Marketing assistance loans meant that in times of low commodity prices, the government went into the commodity storage business in a big way. In some years, the government spent billions of dollars to store surplus commodities, and policies shifted to reduce the amount of commodities being turned over to the government. In the 1985 farm bill, Congress allowed the Agriculture Secretary to lower the repayment rate for marketing assistance loans when surpluses reached certain levels. This had the double effect of reducing the amount of commodities being turned over to the government and allowing for the purchase of commodities at prices below the loan rate.

Farmers could then place their crop under loan for the loan rate, and immediately buy it back at the lower repayment rate. This is called "popping" the crop, because you "pop" it into and out of the loan program.

The Marketing Assistance Loan Repayment Rate (LRR) for rice and upland cotton is based on the world market price and is calculated on a weekly basis. For other commodities, the MAL repayment rate is based on posted county prices and is calculated daily. The repayment rate then becomes the basis for the loan deficiency payment, which we will talk about next.

Loan Deficiency Payments

FP = (DPR x (base acres x 85%) x base yield) + (TP - (AMP + DPR) x (base x 85%) x base yield) + (**LR-LRR x yield**)

Loan deficiency payments were established in the Food Agriculture Conservation and Trade (FACT) Act of 1990 to simplify the process of popping a crop, continuing the reduction of the amount of commodities turned over to the government, and reducing the government's role in the market.

Once a farmer harvests a crop, instead of having to put the crop under loan and then buy it back and do all of the accompanying paperwork, the farmer can file in the Farm Service Agency office for the loan deficiency payment. The loan deficiency payment simply pays the farmer the difference between the loan rate and the marketing assistance loan repayment rate at that point in time, as set by the USDA. Once an LDP is taken, the crop is ineligible for a marketing assistance loan, and the farmer is solely responsible for selling the crop.

Since the LDP does not remove the crop from the market, it does not set a floor to the price, and the price is allowed to fall below the loan rate.

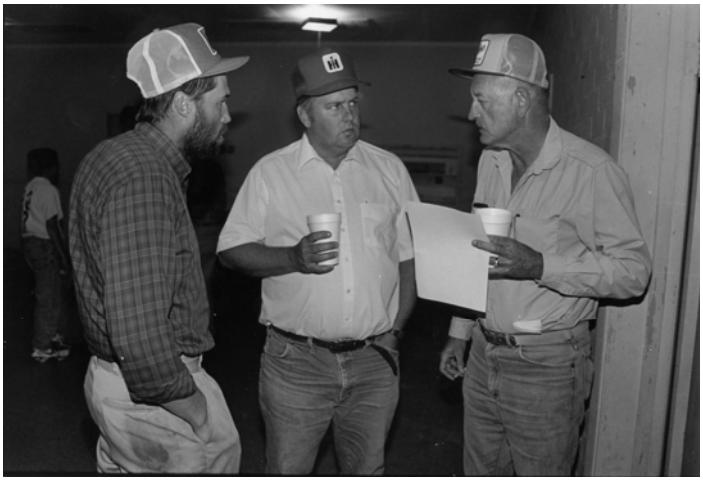
The difference between marketing assistance loans with set repayment rates and loan deficiency payments is a major change in commodity policy, and it is very important to understand. Under the marketing assistance loan, the government used the loan rate to enforce a fair price in the marketplace. The buyer had to pay a price above the loan rate, or lose the crop to the government. With a variable repayment rate and loan deficiency payments, the price is allowed to fall and the government makes up the difference. Over time, Federal programs have shifted from supply control or marketing assistance loan programs toward LDP-based programs. For instance, the 2002 Farm Bill eliminated the peanut quota program that controlled supply, and replaced it with an LDP program. Marketing assistance loans are still available, but with a variable repayment rate they no longer serve as a floor for prices.

Decoupled payments

FP = (**DPR** x (base acres x 85%) x base yield) + (**TP - (AMP + DPR*)*** x (base x 85%) x base yield) + (LR-LRR x yield)

In 1996, the Federal Agriculture Improvement and Reform Act, also known as "Freedom to Farm" introduced the concept of the "decoupled" payment. In an effort to extract the government from agriculture, Freedom to Farm said that farmers would receive "transition" payments based on their payment history rather than their production and that the farmer would receive these payments regardless of what crops they grew. However, transition payments would decrease over time, "weaning" farmers from government support. In this way, they would have a decreasing safety net provided by the payments, but would have the experience of working in a more "free" market, and planting based on market demand rather than Federal programs. They were, however, restricted from transitioning acres to either fruit or vegetable crops, or they would lose the payment on those acres.

Low prices and natural disasters during the late 1990's caused significant problems, and Congress passed annual emergency legislation that provided farmers with additional payments. Since transition payments were fixed at historical levels, when prices dropped below those levels farmers found themselves coming up short, even though they were receiving very significant federal checks. Instead of lessening, commodity payments jumped to record levels, including both Farm Bill spending and a series of emergency payments authorized by Congress.



In the 2002 Farm Bill, an effort was made to bring back some level of safety net that would shift with prices, and to pull together the emergency payments and the transition payments that farmers had been receiving. The 2002 farm bill created two new payments that were the extension of the transition payments found in "Freedom to Farm." Farmers receive direct payments, which are simply the direct payment rate (DPR) which is set in the legislation multiplied by 85% of the farmer's base acreage and yield. The Counter-Cyclical payment is an effort to provide a safety net for farmers in case prices drop further. It is calculated to bring the farmer's income, either through price or through government payments, up to the target price (TP) which is set in the legislation. For the Counter-Cyclical payment, the average market price (AMP), which includes the LDP, and the direct payment rate (DPR) are added together and subtracted from the target price.

Fixed vs. Counter-cyclical.
Payments that move opposite to prices are called counter-cyclical payments. When prices go up, they go down, and vice versa. The opposite of counter-cyclical payments are the fixed payments, which don't change no matter what the market does.

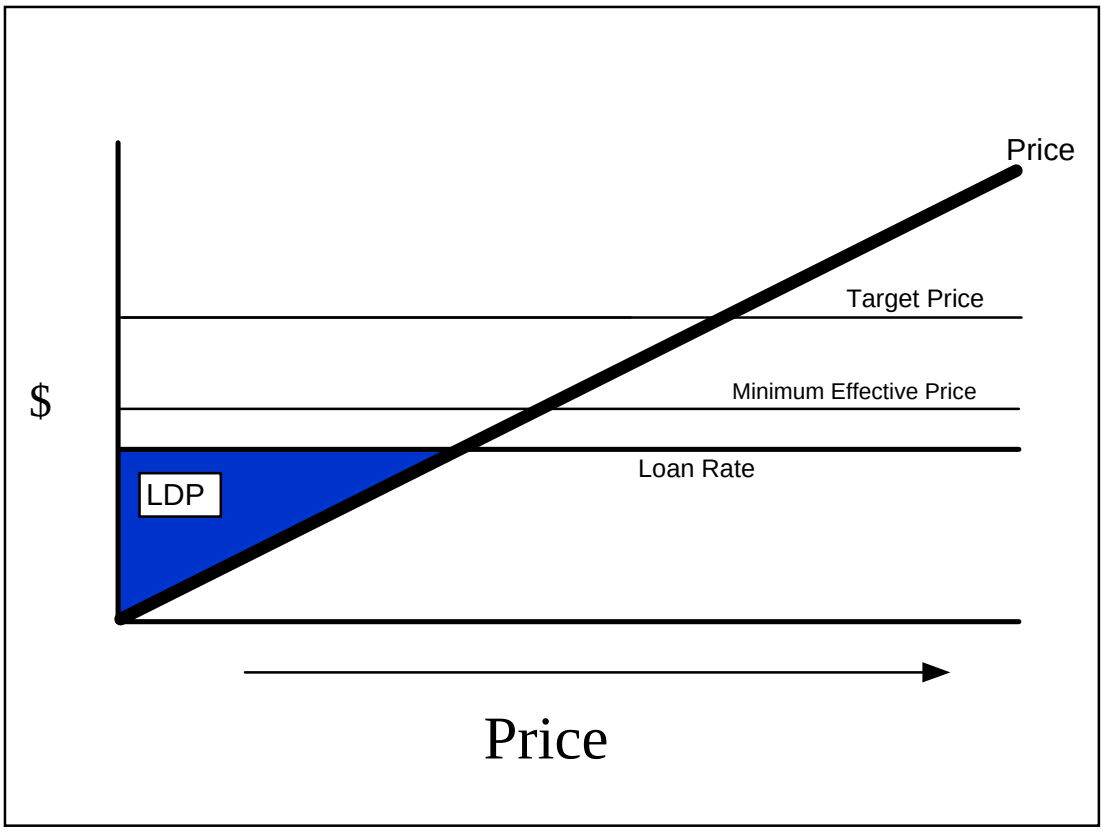
Coupled vs. Decoupled.
Payments that are based on actual production are "coupled," if you don't produce the crop you don't get the payment. If the payment is received regard-less of what crop is grown or actual yield, they are

Putting it All Together

For most commodities, the 2002 Farm Bill supplements farmer income through three payments.

1. Loan deficiency payments.

FP = (DPR x (base acres x 85%) x base yield) + (TP - (AMP + DPR) x (base x 85%) x base yield) + **(LR-LRR x yield*)***

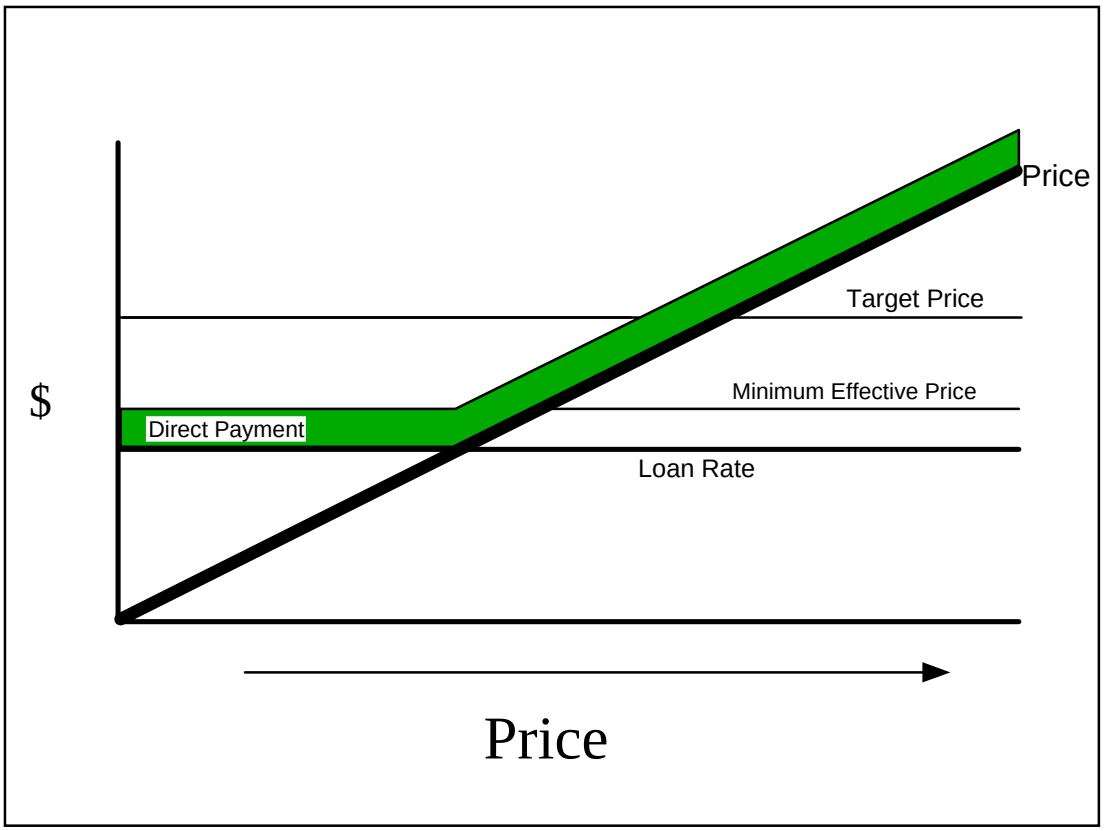


Loan deficiency payments serve as the main safety net, moving with prices and being available only when prices fall below the loan rate. These payments are completely based on production and you do not need to have base to receive an LDP, so they are the only payment available to farmers without a production history. They are counter-cyclical, so as you can see on the chart, as the price increases, the LDP decreases. Farmers choose when to take the LDP, which changes daily or weekly, and so choosing when to take the LDP can have a significant effect on the amount of a farmer's payment.

LDP's are calculated as Loan rate – the loan repayment rate x actual yield.

2. Direct payments

FP = **(DPR x (base acres x 85%) x base yield)** + (TP - (AMP + DPR) x (base x 85%) x base yield) + (LR-LRR x yield)

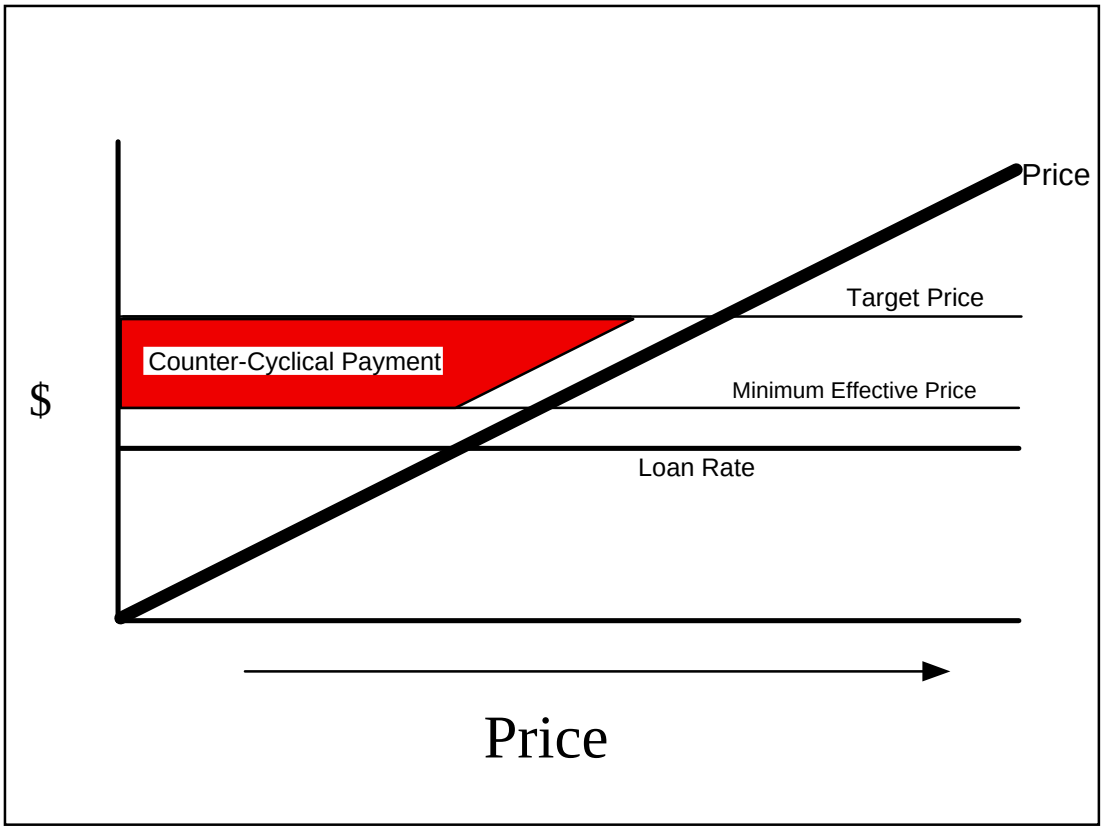


Direct payments are the remnant of the Freedom to Farm transition payments. They are fixed, so they never change, and they are decoupled, so they are calculated entirely on base. Decoupled payments can be especially important in times of disaster (remember that the 2002 farm bill was trying to replace disaster payments as well), when crop yields and therefore loan deficiency payments, are reduced.

Direct payments are calculated by multiplying the direct payment rate (DPR) times 85% of base.

3. Counter-cyclical payments

FP = (DPR x (base acres x 85%) x base yield) + **(TP - (AMP + DPR) x (base x 85%) x base yield)** + (LR-LRR x yield)

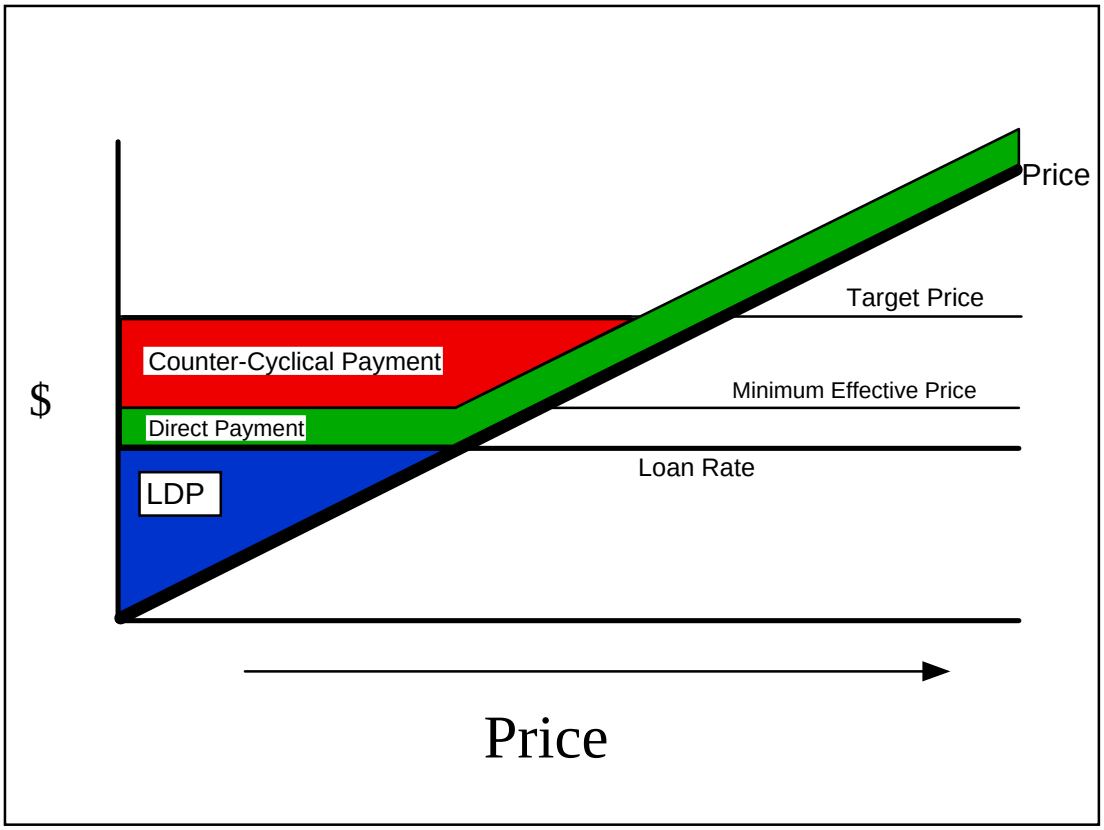


Counter cyclical payments are the attempt to provide a safety net under prices, but remove the requirement that farmers plant the specific base crops. They are decoupled, so payments are calculated using base rather than actual yields. They are also counter-cyclical, so once the price gets above loan rate, the amount of the counter-cyclical payment decreases. Because counter-cyclical payments are based on the average price for the year, farmers receive counter-cyclical payments in August of the following year.

Counter-cyclical payments are calculated as the target price (TP) – the sum of the average market price (AMP) and the direct payment rate (DPR) x 85% of base. If the average market price plus the direct payment are greater than the target price, there is no counter-cyclical payment.

When we put all three of the payments together, it looks like this:

FP = (DPR x (base acres x 85%) x base yield) + **(TP - (MAP + DPR) x (base x 85%) x base yield)** + (LR-LRR x yield)



Now does the equation make sense?

As you can see, as price increases, the amount of the payment decreases until you get to the direct payment only. (Remember that because it is fixed and decoupled, the farmer always gets the direct payment.) So the amount paid by the government for a certain commodity depends directly on the difference between the price and the target price. The greater the difference, the greater the payments.

Only farmers with base receive all three payments. That is the decoupled part. If a farmer does not have base, he is assured only of the LDP, which brings his price to loan rate. The target price, loan rate, and direct payment rate are set in the legislation and do not change.

Rates for several major commodities are laid out in the following chart:

Commodity Rates						
Commodity	Units	Target Price	Direct Payment Rate	Loan Rate	Minimum Effective Price	Maximum Counter-Cyclical Payment Rate
Wheat	$/bu	3.92	0.52	2.75	3.27	0.65
Corn	$/bu	2.63	0.28	1.95	2.23	0.40
Upland Cotton	$/#	0.724	0.0667	0.52	0.5867	0.1373
Soybeans	$/bu	5.80	0.44	5.00	5.44	0.36
Peanuts	$/ton	495	36	355	391	104
Rice	$/cwt	10.50	2.35	6.50	8.85	1.65

Source: USDA. The minimum effective price is the sum of the loan rate plus the direct payment rate. The maximum counter-cyclical payment rate is the target price minus the minimum effective price.

It is VERY important to remember that decoupled payments are given to the farmer according to base, regardless of what crops they produce. When a farmer is budgeting for a certain crop, it is very tempting to include the decoupled payments for that commodity in their crop budget. However, they will receive those payments anyway, and so should only include LDP's in their calculations.

Increasingly direct payments have become part of the rental price of land. Because the base stays with the land, the land owner could keep the land, not rent it out, and receive the decoupled payments. Therefore they often expect rental to be greater than the anticipated decoupled payments.

Payment Limitations

The 2002 farm bill established a set of limits on how much a person can be paid under the commodity programs. Limitations are split out among the three payments, and for a total of all payments.

One individual can receive no more than $360,000 total. The limitation on direct payments is $40,000, on counter-cyclical payments is $65,000, and on LDP's is $75,000. If a person makes more than $2.5 million, they are ineligible for commodity payments at all.

You are probably doing the math, asking "If the maximum total of the three payments adds up to $180,000, then how could you possibly get to a $360,000 max?" A good question. The answer is that one individual can be part of 3 entities. An entity can be a person or an operation or a corporation. (Remember that many family farms incorporate to shelter personal assets from business assets.) An individual gets full payments for the first entity, and half for the other two, totaling $360,000. An entity can also have more than one person.

So, farmer John Smith can have Smith Family Farm, under which he maxes out his payment limitation. He can then have Smith Farm Enterprises, which gets a half limit, and John's Farm, which also gets a half. His wife and son can also come on board as a part of each of these entities, maxing out their payments for $360,000 each. So that family (or two families) can get a max of $1,080,000.

As we talk about payment limitations, there is always a debate about how large an operation hits the limitation. Because payments are based on price, the amount of land that can receive payments under the cap shifts with price.

For instance, over a five month period between October of 2004 and April 15 0f 2005, the LDP on cotton fluctuated between 9.66 cents per pound and 18.58 cents per pound. At 9.66 cents per pound and a yield of 650 pounds of lint per acre, it takes approximately 1,200 acres to reach the $75,000 payment limitation on LDP's. At 18.58 cents per pound, it takes 621 acres. Farmers are therefore wary of payment limitations that may limit the safety net of LDP's, in case of prices falling even further.

But really, all of this gets thrown out of the window when we bring in the commodity certificate. Certificates are heavily used in cotton, but are also available in other commodities. Here is where things get really hairy.

Many people market their commodities through cooperatives, and many cooperatives file for the payments on behalf of their members. In order to let them get these payments without the co-op having to track which crop belongs to which farmer and how much of their payment limitation they have used up, commodity certificates were created. Basically, commodity certificates replace payments, and so do not count as payments, but are immediately, and only immediately, exchangeable for payments. Instead of a payment you get a certificate for a payment, which you trade for a payment.

What this means is that once a farmer maxes out his payment limitations, he can receive commodity certificates instead and keep right on going. As one farmer told me, "You go to one end of the counter and they give you a certificate, and then you walk to the other end of the counter and redeem it for your payment." That's it. It is that simple. It is a loophole big enough to drive a truck through.

Now you are probably looking at these totals and thinking that these farmers must be getting fabulously wealthy on these payments. Who wouldn't want a nice fat million dollars from the government? But, as we shall see in the next section, all is not so simple, and VERY few farmers ever get near maxing out their payment limitations.

Which Commodities Get What Payments?

In addition to the three payments that we have been talking about, the 2002 Farm Bill included marketing allotments for sugar and, until recently eliminated by Congress, tobacco, and surplus purchases of milk. It also shifted the peanut program from a quota-based, supply control program to a loan deficiency payment program, and paid farmers for the eliminated peanut quota. The following chart gives what payments are available on specific commodities.

Types of Price Supports by Commodity

Commodity	Fixed Decoupled Payments	Counter-Cyclical Deficiency Payments	Non-Recourse Loans and Loan Deficiency Payments	Import Quotas	Surplus Commodity Purchases
Wheat	yes	yes	yes	No	No
Corn	yes	yes	yes	No	No
Sorghum	yes	yes	yes	No	No
Barley	yes	yes	yes	No	No
Oats	yes	yes	yes	No	No
Cotton	yes	yes	yes	No	No
Rice	yes	yes	yes	yes	No
Soybeans	yes	yes	yes	No	No
Oilseeds	yes	yes	yes	No	No
Milk	No	yes	No	yes	Yes
Peanuts	yes	yes	yes	No	No
Beet and Cane Sugar	No	No	yes	yes	No
Wool	No	No	yes	No	No
Mohair	No	No	yes	No	No
Honey	No	No	yes	No	No
Dry Peas	No	No	yes	No	No
Lentils	No	No	yes	No	No
Chickpeas	No	No	yes	No	No
Tobacco	No	No	No	Ended 2003	No

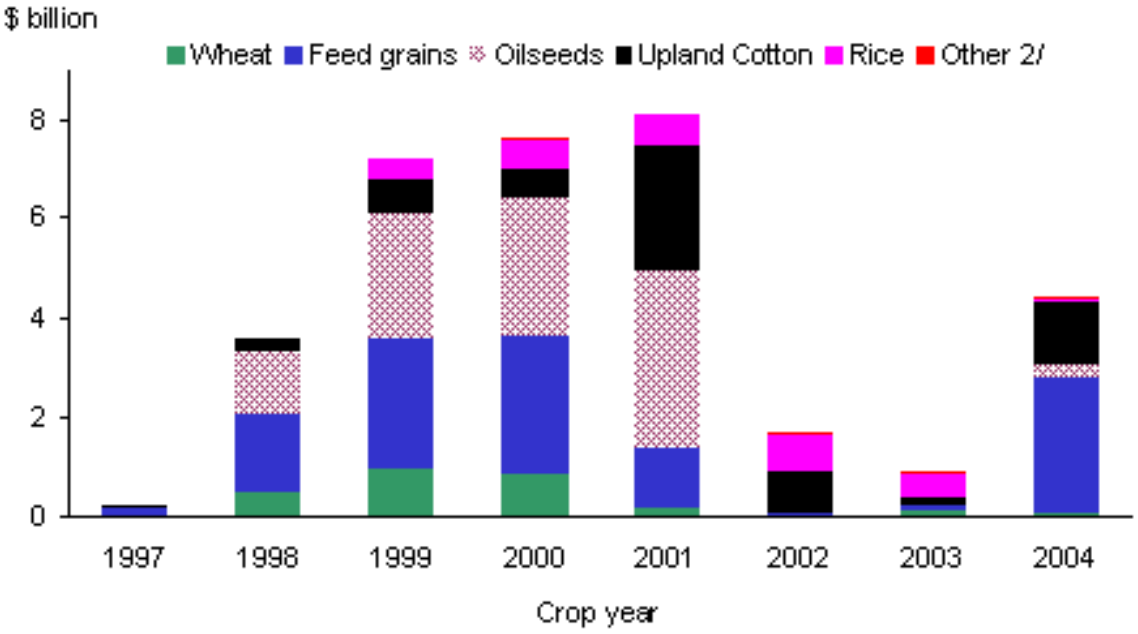
The Role of Price

In two of the three payments, an estimation of the price that farmers receive is an important determinant of the amount of payments. For loan deficiency payments, that estimation is the loan repayment rate, which is established by the USDA based on the weekly world market price for rice and cotton, or the daily posted country rate for other commodities. For the Counter-Cyclical Payment, the estimation is the Average Market Price, which is the national average price for the entire year. As we saw in the charts, the lower the price, the greater the payments for an individual commodity.

Because prices changes from year to year, the amount of money that the farmer gets, and therefore the amount of money the government spends on a given commodity will change from year to year. When we look at where the money goes, it is important to look at payment levels over time, rather than at a specific point in time.

The following graph from the U.S.D.A. Economic Research Service shows the amount that the government paid for marketing loans for specific commodities over the last eight years.

Marketing loan benefits 1/



1/ Includes marketing loan gains, certificate gains, and loan deficiency payments as of February 10, 2005.
2/ Includes peanuts, dry beans, peas, lentils, honey, wool, and mohair (<$70,000).
Source: Farm Service Agency, USDA.

If you look only at 2002, then payments to cotton and rice dwarf all other commodities. However, if you look at 2004, then feed grains seem to be getting the lion's share of the money. In 2001 it was oilseeds. Which commodity receives the most money is determined by which has the greatest difference between the loan or target rate and the price during that year.

So now that we understand the formula for determining a farmer's payments, and we understand the payment limitations, let's look at an example of how this actually costs out, using production budgets from NC State University and current prices. But first congratulate yourself on getting this far. You now know more about commodity policy than almost all your friends. Relax a minute. Have a cookie.

Meet John Farmer

Meet John Farmer. He has a 600 acre operation, 150 acres of which he owns and the rest he cash rents. He produces 400 acres of cotton, 150 acres of peanuts and 50 acres of corn.

He has 350 acres of cotton base with a historical yield of 600 #/a. He just got 150 acres of peanut base when the 2002 farm bill bought out peanut quota and eliminated the program. In order to apply the peanut base to his farm, he had to eliminate his corn base. His historic yield for peanuts is 2500 pounds per acre.

Decoupled Payments
(Received whatever he plants)

Cotton Direct Payment	
Direct payment rate x 85% of base acreage x Historic yield	
$0.0667 x (350 a of base x .85) x 600 =	$11,905.00
Cotton Counter-cyclical Payment (if cotton stays below loan price)	
CC Rate x 85% of base acreage x historic yield	
0.1373 x (350 x .85) x 600 =	$24,500.00
Peanut Direct Payment	
DPR x 85% of base acres x historic yield	
$0.018 x (150a of base x 85%) x 2500 =	$5,735.50
Peanut Counter-cyclical Payment (if peanuts stay below the loan rate)	
CC Rate x 85% of base acreage x historic yield	
$.052 x (150a of base x 85%) x 2500 =	$16,575.00
Total Decoupled Payments	$58,715.50

Recently his landlords have started to expect the direct payments as a part of their rent since they could keep the land, put nothing on it, and take home the direct payments. Since John owns the land with peanut base, he keeps that one. The cotton rental has increased to $100 / acre to include the cotton payments.

Note: All costs and yields are from NC Cooperative Extension budgets or are NC averages except land rental. The land rental cost is from correspondence with individual farmers, and represents their experience.

Cotton

John's cotton yield this year is 750#/acre, (NC average cotton yield for 2001-2003 is 633#/a). Assuming a US price of 0.4460, and a World price of $0.3542 (Feb. 15, 2005) his budget is as follows.

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Costs per acre

Operating Costs

Seed		$37.90
Fertilizer and lime		$65.33
Herbicides and Insecticides		$75.68
Growth regulator & Defoliants		$39.71
Crop Insurance		$35.00
Tractor / machinery operation		$44.59
Ginning	$0.105/# x 750#	$78.75
Hired Labor		$10.80
Hired Labor		$10.80
Land Rental		$100.00
Operating loan interest		$9.21
Total variable costs		$ 496.97
Fixed costs for machinery		$62.99
Total costs per acre		$559.96
		x 400 acres
Total Costs		$223,984.00

Income

Cotton Fiber	750# x $0.4460 x 400a =	$133,800.00
Cotton Seed	1,253# x $0.05 x 400a =	$ 25,060.00
LDP	750# x $0.1658 x 400a =	$ 49,740.00
Total		$208,600.00
		- $223,984.00
Net return		**$-15,384.00**

Peanuts

He has 150 acres of peanuts, with a yield of 3,300 pounds. He has contracted his peanuts for $450 per ton, or $0.225 per pound. The peanut loan rate is $355 / ton, so there is no LDP.

Income

3,300#/acre x $0.225 x 150 acres	$111,375.00

Costs

Operating Costs

Seed	$98.00
Innoculant	$5.00
Fertilizer (including land plaster)	$91.03
Chemicals	$151.61
Scouting	$7.00
Hauling	$19.76
Drying and Cleaning	$32.93
Crop Insurance	$22.00
Tractor / machinery	$48.08
Labor	$28.24
Interest on Operating Capitol	$15.75
State Check Off Fee	$3.29
National Loss, Promotion, Research Assessment (1.65% of gross)	$12.25
Variable Costs per acre	$534.94
Fixed Machinery Cost Per Acre	$117.69
Total costs per acre	$652.63
	x 150 acres
Total costs	$97,894.50

Net return on Peanuts **$13,480.50**

Corn

He has fifty acres of corn with a yield of 100 bushels per acre, and a price of $2.24 per bushel. Since he has no corn base, he gets no decoupled payments. Because the loan rate on corn is $1.95, there is no LDP.

Costs

Seed	$28.25
Fertilizer and Lime	$65.70
Herbicides	$34.32
Machinery / hauling / drying	$40.61
Labor	$ 6.06
Interest	$ 6.45
Total variable costs	$181.39
Fixed costs	
Machinery	$28.50
Total costs per acre	$209.89
	x 50 acres
Total costs	$10,494.50

Income

Corn Crop	
100 bushels per acre x $2.24 X 50 acres =	$11,200.00

Net return on Corn $704.50

Whole Farm Net Income

Non-government income	
Cotton	$158,860.00
Peanuts	111,375.00
Corn	11,200.00
Total Non-government income	$281,435.00
Operating Expenses	
Cotton	$223,984.00
Peanuts	97,894.00
Corn	10,494.50
Total Operating Expenses	$332,373.00
Net without government payments	**$ - 50,938.00**
Loan Deficiency Payment	
Cotton	$49, 740.00
Net with loan deficiency payments	**$-1,198.00**
Decoupled Government Payments	
Cotton $11,905 + $24, 500	$36,405.00
Peanut Payments $5,735 + $16,575	$22, 310.00
Total Decoupled Payments	**$58,715.50**
Total Government Payments	**$108, 455.00**
Net with all payments	**$57,517.50**
% of Net return from government payments:	**189%**

So John Farmer therefore receives over $108,000 in government payments, but after expenses has less than $58,000. From this, he still has to pay for land ownership, the cost of farm infrastructure, taxes, and social security for himself and his employees and any back debt before he can pay himself.

Summary

So there it is, boiled down and laid out. I hope that the “black box” of commodity payments is much clearer to you, and that now when people start arguing about loan rate versus the target price and whether commodity payments save or destroy the family farm, you can be right there with them.

Just to recap the high points, the government can intervene in three ways; set a price, support a price or pay the difference. Increasingly over the last 20 years, we have been paying the difference. The three payments that farmer receive—the direct, the county-cyclical and the loan deficiency payment—all have different targets, and different benefits. If you have base and get all three, it should bring you up to the loan rate, although in a roundabout way. Even then farmers still struggle to stay in business and they take home much less than what the government sends them.

But the nut of it all is that US farm policy has changed since the 1980’s to allow the price of commodities to fall below the cost of production. The promise that has been made to the American farmer and the American people who rely on them, essentially the promise that we have made to ourselves, is that we, through our government, will make up the difference. Since the mechanisms for regulating price; the grain reserves, the loan rate, and others have been dismantled, the only mechanism left to us is commodity payments, with all of their faults and problems.

As we look at changing this system, if we continue our commitment to keeping commodity production in this country, then we have to address the whole deal, not just the promise made to farmers.

Thank you for your attention. Go have another cookie.

Additional Resources

An overview of the 2002 farm bill is available from the USDA at http://www.ers.usda.gov/Features/farmbill/.

The USDA Economic Research Service has a series of "briefing rooms" on their web site that provide research publications on a long series of subjects. The briefing rooms are available at http://www.ers.usda.gov/Briefing/.

If you scroll down to the briefing room for "Farm and Commodity Policy" there is a series of publications specifically on commodity policy. A good overview of where payments go is available at http://www.ers.usda.gov/Briefing/FarmPolicy/gov-pay.htm.
Several good publications are also available in the "Farm income and Costs" briefing room.

The Congressional Research Service also has a series of reports on commodity policy that are written to brief congressional staffers. Agriculture reports are available at http://www.ncseonline.org/NLE/CRS/Detail.cfm?Category=Agriculture. An excellent overview of commodity programs is available at http://www.ncseonline.org/NLE/CRS/abstract.cfm?NLEid=16906. Average farm subsidy payments by state is available at http://www.ncseonline.org/NLE/CRS/abstract.cfm?NLEid=60744.

Glossary

AMP – Average Market Place.

Base – A farm's production history, including both acreage and yield per acre.

Commodity – anything that is traded, generally non-perishable goods that are regulated by the Federal programs under the Commodity title of the U.S. farm bill.

Counter Cyclical Payments – payments that move opposite of market prices, when prices go up, they go down, and vice-versa.

Coupled Payments – payments that are based on actual production, if a farmer does not produce the crop, the farmer does not get the payment.

Decoupled Payments – payments farmers' receive based on their production history verses their production.

DPR – Direct Payment Rate.

Fixed Payments – payments that don't change no matter what the market does.

LDP - Loan Deficiency Payment – the difference between the loan rate and the loan repayment rate at that point in time, set by the USDA.

LR – loan rate.

LRR – Loan Repayment Rate for Marketing Assistance Loans. Price below the loan rate at which farmers can buy back his crop from under loan.

MAL – Marketing Assistance Loans – a loan a farmer can take out using his crop as collateral.

TP – Target Price.