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# 2007 Farm Bill Forums: Issues and Options

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# 2007 Farm Bill Forums
# Issues and Options

*A Series of Farm Bill Educational Meetings for Producers and Interested Policy Stakeholders in Kansas and Nebraska*

**Kansas**

**Sabetha -- February 20**
**Emporia -- February 21**
**Hays -- February 22**

**Nebraska**

**Scottsbluff -- February 26**
**Cozad -- February 27**
**Hastings -- February 28**
**Columbus -- March 2**

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## Agenda

| | |
|---|---|
| **9:30 a.m.** | **Registration** |
| **9:45 a.m.** | **Introductions and Comments** |
| **10:00 a.m.** | **Setting the Stage for the Farm Bill Debate** |
| | **Exploring the Rationale for Farm Programs** |
| | **Understanding the Alternatives for the Farm Bill** |
| | **Alternative I: Existing Commodity Programs and Potential Adjustments** |
| **12:00 noon** | **Lunch** |
| **1:00 p.m.** | **Alternative II: Revenue Safety Net** |
| | **Alternative III: Green Programs for Conservation and Bioenergy** |
| **2:00 p.m.** | **Group Discussions** |
| | **Wrap-up Discussion/ Panel Discussion with Presenters** |

Several policy experts from both the University of Nebraska-Lincoln and Kansas State University will be involved in the meeting series:


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# The 2007 Farm Bill: Drivers of the Debate

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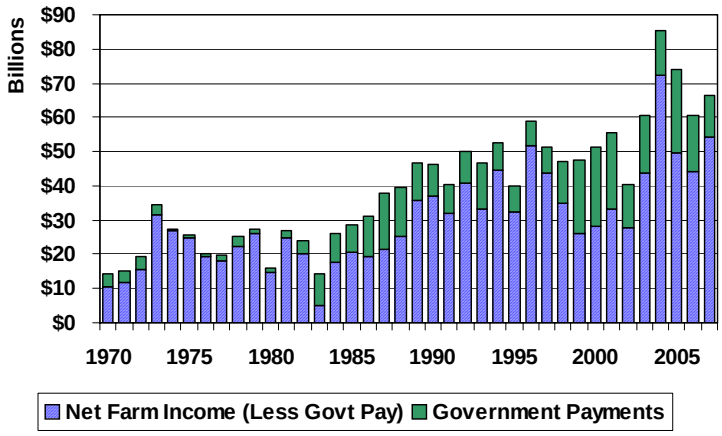
The debate on the 2007 Farm Bill has begun in earnest in Washington. The new Congress has already convened several hearings on farm policy issues, including energy and conservation. The Administration has just released its policy recommendations for the new farm bill, opening up further discussion that will grow over the coming months. The current farm bill, passed in 2002, runs through September 2007 and includes programs covering the 2007-2008 crop year. Before it expires, Congress will need to reconcile the current discussion and debate and either pass a new farm bill or an extension of the current one.

While the discussion and development of the new farm bill will be played out over the coming months, it is important to remember several fundamental factors that drive the debate. Drawing from an old adage, "farm bills are always a product of their times." While the exact setting changes from farm bill to farm bill, the same key factors continue to drive the debate. The economic setting, the budget setting, the trade arena, and the political climate all influence the development of each farm bill. Understanding each of these drivers is a fundamental part of understanding the potential new farm bill.

**Economics**

The economic setting heading into the 2007 Farm Bill is clearly different than it was in 2001 when the 2002 Farm Bill was developed. In the four years leading up to the 2002 Farm Bill, U.S. net farm income less government payments averaged just over $30 billion (see Figure 1) and was supplemented with nearly $20 billion annually in government payments, including emergency assistance from Congress. The 2002 Farm Bill debate focused in part on the size of the farm income safety net and the calls to formalize the emergency assistance into a basic part of the safety net. At the time, the counter-cyclical payment program was advertised as exactly that.

**Figure 1. U.S. Net Farm Income (USDA-ERS)**




In early 2007, the economic setting is very different. Coming off of record farm income levels in 2004 and 2005 above $70 billion (see Figure 1), farm income levels moderated in 2006 to $61 billion. There have also been concerns about higher energy costs taking several billion dollars additional dollars out of net farm income. But, the higher energy prices have also supported the rapidly-developing biofuels industry, creating new demand for agricultural commodities, particularly corn. The resultant increase in the price of corn and other commodities has sparked a surge in crop profitability and the first forecast of 2007 net farm income just released from USDA projects a rebound in U.S. net farm income to nearly $67 billion. If the projections hold, the 2004-2007 period will represent the strongest U.S farm income performance on record (in nominal terms). While government payments continue to be a significant share of farm income

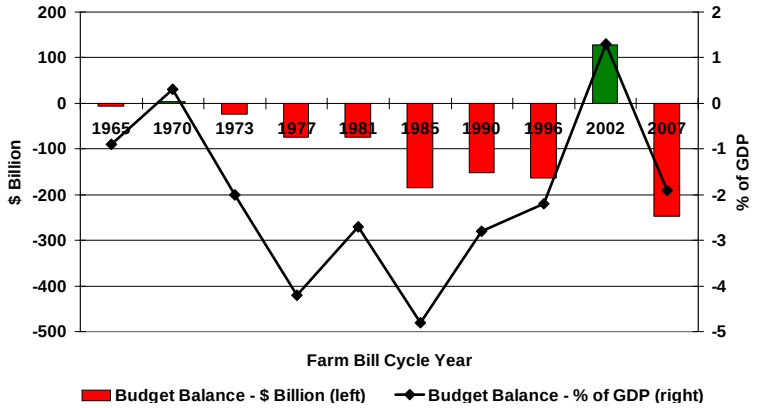
at an estimated $16.5 billion annually over the same time period, the strength of the farm economy changes the debate from one about the size of the safety net to one about the shape of the safety net.

Already, the current higher grain price and economic outlook for the U.S. agricultural sector has variously led to calls 1) to end farm income support programs as unnecessary, 2) to strengthen programs and raise the level of the safety net under current higher prices, 3) to shift the program from one based on prices to one based on revenue, or 4) to simply extend the current safety net as a cost-saving option in light of other concerns in the budget and trade arena.

**Budget**

The budget setting is also very different now than it was in 2001. In 2001, the debate was about how to allocate an additional $70 billion in baseline spending for agriculture out of a growing federal budget surplus. Since then, the focus has shifted to the size of the federal budget deficit (see Figure 2) and the possible spending cuts to reduce the deficit. The deficit of $248 billion in fiscal year 2006 (matched up in the graph as the lead-in year of the 2007 Farm Bill debate) is the largest ever amidst a farm bill debate.

**Figure 2. Federal Budget Projections (CBO)**




In this budget climate, the President has proposed agricultural spending cuts in each of his past three budget requests, including the fiscal year 2008 budget request just released in early February. The *Deficit Reduction Act of 2005* did make several cuts in farm program spending, including cuts to conservation, rural development, and research and delayed part of the direct (fixed) payments to producers.

While these initial cuts signal continued pressure on farm program spending, there are several caveats to temper the budget concerns. First, farm bills almost always have been debated in times of federal budget deficits. Only two farm bills in the last 40-plus years (1970 and 2002) were debated in the presence of a budget surplus. In addition, the current deficit represents only 1.9 percent of the nation's GDP (right axis in graph in Figure 2) and is much lower in real terms (constant dollars) than the deficit at the time of most farm bill debates since the mid-1970s.

Another point of emphasis is that current farm programs are actually costing less than expected. Due to higher crop prices and future price projections, spending on farm commodity programs is several billion below original budgeted levels. In the new baseline budget estimates released in January by the Congressional Budget Office (CBO), 10-year spending projections for mandatory farm support programs are $35 billion less than the 10-year projections issued in January 2006. This reduced spending does not technically count as savings to be allocated elsewhere, but it does change the political climate in which federal budget decisions will be made.

These budget decisions will in fact represent the first test of future policy directions. While the agricultural committees have jurisdiction over the authorization of new farm bill, the budget committees will determine the dollar limit to put on that authority. The baseline spending projections in March 2007 will represent the starting point for discussions. While the higher prices and reduced spending projections may suggest the possibility of additional baseline allocations for agriculture, Congress must also deal with the "Pay-As-You-Go" (PAYGO) budget rule adopted in the U.S. House of Representatives. These rules stipulate that any

bill that offers provisions increasing spending from CBO budget baseline estimates be offset by spending cuts (or tax increases) in other provisions.

The budget setting presents a difficult outlook for programs looking for increased funding in the 2007 Farm Bill. The deficit and the PAYGO rules both suggest a difficult challenge for any proposed increases in baseline funding for new or existing programs. At the same time, the reduced baseline projections for spending under the commodity programs means the overall size of the farm program pie could be smaller than most groups expected, leaving less opportunity for political and budget tradeoffs of one program for another.

**Trade**

The trade setting is dominated at present by two key questions. Will the WTO Doha Round negotiations break out of its current stalemate and move toward an agreement? Will the U.S. be subjected to repeated challenges of its farm programs under the conflict resolution process of the existing trade agreement? Both of these questions may point toward necessary reforms in U.S. farm programs.

The WTO Doha Round negotiations have been a slow, complex process since they officially began in 2001. In a framework agreement in July 2004, WTO member nations agreed to do three things in regard to agriculture: 1) increase market access (i.e. reduce tariffs and barriers that discourage imports), 2) reduce trade-distorting domestic subsidies, and 3) eliminate export subsidies. The difficulty in reaching agreement revolves around how these framework objectives are to be met. How much will tariffs and domestic subsidies be reduced? What is the time frame for these reductions? The goal was to work these details out at a WTO summit in Hong Kong in December 2005. When that meeting failed to reach consensus, the talks stretched into 2006 and continued until July, when the WTO Director-General Pascal Lamy suspended the negotiations, calling for a period of "time-out" to allow WTO members to reassess their negotiating positions.

**Table 1. World Trade Organization Negotiations and Agricultural Issues Post Hong Kong.**

| **Export Competition** | **Domestic Supports** | **Market Access** |
|---|---|---|
| *(direct subsidies on exports)* | *(domestic subsidies with effects on production and trade)* | *(domestic barriers restricting imports)* |
| Agreement to phase out export subsidies by 2013<br><br>-includes direct export subsidies<br><br>-includes subsidy portions of export credit programs<br><br>Agreement to eliminate cotton export subsidies in 2006<br><br>Disciplines on food assistance and establishment of "safe box" for bona fide food aid | Reduction of aggregate measures of support (AMS) across three bands ("Amber Box" and "Blue Box" programs)<br><br>-higher cuts for higher bands of current spending<br><br>-Europe likely in highest band<br><br>-Japan and U.S. likely in second band<br><br>-Bands, cuts, and schedule for cuts not yet developed<br><br>No disciplines discussed on "Green Box" programs | Elimination of 97 percent of existing tariff lines on imported products from least-developed countries<br><br>Reduction in tariff rates across four bands<br><br>-higher cuts for higher bands of current tariff rates<br><br>Flexible terms for "sensitive" products<br><br>-limited number of "sensitive products" not confirmed |

Since July 2006, informal discussions have continued at various venues, but to date, no breakthrough compromise agreements have been announced. While the U.S. Trade Representatives have offered proposals to reduce trade-distorting domestic farm program payments to secure progress from the European Union (EU) and other in opening markets, the EU and numerous developing countries have insisted that the United States must improve its offer to reduce domestic subsidies before they will increase market access. At the same time, various U.S. policymakers and interest groups have argued that it is the EU and the other counties that need to make a better offer of market access in the WTO.

While the WTO negotiations could continue almost indefinitely with little progress, the calendar does present two issues in the United States to prod the negotiations forward. The first is the President's trade promotion authority (TPA). This authority to negotiate trade agreements that are subject to ratification by Congress without amendment expires in July 2007. If TPA expires and is not renewed, as seems likely in the current Congress, then the President's ability to negotiate any trade agreement is severely restricted. TPA requires any trade agreement to be voted on as is without amendments. Not having TPA would mean Congress might add several amendments to the implementation of any WTO agreement, essentially scuttling the agreement as written and eliminating the President's ability to negotiate in good faith.

The above discussion notes that a WTO agreement could demand changes in U.S. farm programs. At the same time, the failure of a WTO agreement could also lead to changes in U.S. farm programs. The United States has already been found in violation of WTO rules as agreed to in the previous round of trade negotiations, the "Uruguay Round Agreement on Agriculture." Under that agreement the United States and other countries subsidizing agriculture made commitments on reducing the amount of subsidies and limiting the total spending on trade-distorting programs. Based on the rules of that agreement, Brazil filed suit against the United States in the WTO, claiming that total subsidies on U.S. cotton exceeded the allowed limits set forth in the Uruguay Round. The WTO found in favor of Brazil and ruled that the United States must change certain cotton programs, or face retaliatory damages of several billion dollars.

There are some important implications of the Brazilian cotton case for U.S. farm programs. First, it was determined by the WTO that the U.S. direct payment program is not a "green box" (minimally trade distorting and unlimited) program. Rather, it is an "amber box" (trade distorting and limited) program that has more significant trade distorting aspects because of a restriction on planting fruits and vegetables on contract acres receiving a direct payment. This issue will have to be addressed by Congress should they determine it important to make direct payments a "green box" program.

Second, the United States has thus far made some policy changes for cotton, including the elimination of the Step 2 program and the elimination of violating portions of the export credit programs. But, the United States has not made any adjustments to the marketing loan and counter-cyclical payment programs also found to be in violation of support limits. As a result, Brazil has filed a follow-up complaint arguing that the United States has only partially implemented policy changes required to comply with the ruling and demanding either compliance or the right to enact retaliatory measures. Congress will have to address these issues as well within the scope of the farm bill deliberations.

Third, the model of the Brazilian cotton case can be readily translated to other program commodities, given the same set of farm policy tools. At the moment, Canada has initiated consultations with the WTO in complaint of U.S. corn subsidies, with several other countries joining the consultations. If a new WTO agreement is not achieved, these disputes and others could become more commonplace and result in piecemeal challenges and changes in U.S. farm programs over time.

Between the trade negotiations on a new agreement that would demand farm spending reforms and the potential piecemeal changes that could occur in response to WTO complaints in the absence of a new agreement, it appears that changes are coming. However, the changes do not necessarily dictate the end of farm programs. They simply demand at least some shift to programs that are more acceptable in the trade arena.

**Politics**

Finally, one cannot prepare for the next farm bill debate without noting the role of politics. An often-used saying is that “politics always trumps economics” and that is certainly true with the farm bill. Although the economics of farm income, federal budgets, and trade agreements will certainly push some of the debate, the farm bill will eventually largely be a product of the political environment in which it is created. And that environment has changed substantially since the last farm bill was completed in 2002.

With the November 2006 elections, Democrats regained control of both the Senate and the House of Representatives, meaning new committee chairs assumed leadership in January, just in time to develop the new farm bill. The shift from two Republican committee chairs to two Democratic committee chairs may bring with it a larger focus on certain specific policy issues such as the Conservation Security Program and the role of payment limits, two issues that have the interest of Senator Tom Harkin of Iowa, the new Senate agricultural committee chair.

However, it is worth remembering another old saying that “farm bills are generally more parochial than they are partisan.” With Representative Collin Peterson leading the House agriculture committee, the new Congress has two agriculture committee chairs from the Upper Midwest whereas the previous Congress had two chairs from the South. Regional differences in farm program spending, basic commodity issues, and conservation targets could lead to challenging committee work that is more split along regional lines than political lines.

While the formal change in Congress is significant, it is also important to recognize the emerging presence of several farm bill interest groups outside the traditional farm, commodity, and agribusiness sector. For more than 30 years, the development of each farm bill has been a comprehensive, coalition-supported process. And yet, the traditional groups within production agriculture clearly played the role of lead partner. Increasingly, that model has been challenged by other interest groups.

Conservation programs have grown substantially in recent years. In fact, the 2002 Farm Bill has been widely reported as the “greenest” farm bill to date, with nearly $3 billion in annual conservation program spending for programs like the Conservation Reserve Program (CRP), the Environmental Quality Incentives Program (EQIP), and the new Conservation Security Program (CSP). And yet, conservation spending has also been a regular target for Congress when spending cuts have been required to offset disaster payments or satisfy budget reconciliation requirements.

Conservation and environmental groups have placed an increased emphasis on securing additional funding for conservation programs. One group, the Environmental Working Group, utilized the public availability of program payment data and published a widely-referenced database of government payments. This database has substantially shifted the debate over conservation spending from “How much money for conservation?” to “Why so much money for commodities?”

Similar strategies are appearing in other special interest areas as well. Food nutrition and assistance groups have historically been the “urban” partner to the “rural” production agriculture sector in building political support for a comprehensive farm bill. But, groups in this area are looking more to their own programs, questioning why the United States is subsidizing the production of food and feed grains and not “more nutritious” fruits and vegetables. And in the rural development area, groups are looking at the role of bioenergy as a new driver of economic activity across the rural United States.

While the other interests groups have been honing their message and increasing their efforts, the farm, commodity, and agribusiness interests are still central to the debate. The political battle has largely been played out thus far as other interests fighting for a larger piece of the total farm bill spending pie, each hoping to take some of the current share going to traditional commodity programs. With the early expectations of cuts for trade or budget reasons, coupled with potential savings from payment limit changes, there were hopes for substantial funds to be freed up for other programs.

However, there are some limits to that political strategy. First, as noted in the budget setting, the current projections for higher prices mean the baseline spending projections for existing commodity programs are down substantially. This simultaneously means that there is less baseline to potentially reallocate to other programs and that maintaining the existing commodity programs is suddenly more feasible in terms of both trade and budget constraints. Another political factor to consider is that the farm commodity programs remain a core part of the farm bill. If the core agricultural interests are diminished in the farm bill process, the overall driving force to pass a farm bill could be diminished as well. Shifting the major focus of the farm bill away from production agriculture could just as easily lead to no farm bill and no major reauthorization as it could to an increased role for the other program areas.

**Conclusion**

Reflecting on the four factors driving the debate - economics, budget, trade, politics - the farm bill development will continue to be a complex and challenging process. The various competing interests have yet to battle over budget allocations and only then will they be able to fully engage in the battle over program alternatives. The real farm bill debate is only now getting started, with Congressional hearings underway and the Secretary's farm bill recommendations now out. Congress has already hosted the Secretary for testimony on the Administration's farm bill recommendations and will likely convene several more hearings to receive testimony and recommendations. Then Congress will begin the work of developing farm bill language in the agricultural committees and moving it toward final passage. Discussions in committee and on the floor of Congress could well last through the summer of 2007 or beyond, making for an interesting several months ahead.

# Historical Rationale for Farm Programs

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Supporters of U.S. farm programs offer many justifications for the current and future use of farm programs. The most common of these justifications include: saving the family farm, supporting rural communities, providing a cheap food supply, maintaining the environment, and competing with large agribusinesses and subsidizing countries. A recent survey on preferences for the 2007 Farm Bill indicates that U.S. producers still value these justifications for farm subsidies (Farm Foundation). Oftentimes these justifications are cited by supporters and treated as fact. But are they fact? Following is a discussion of the primary historical arguments for farm subsidies.

## Saving the Family Farm

The rational for saving the family farm through farm subsidies is both emotional and economic. The emotional aspect has its roots in the founding of the United States. At the time of its independence from Great Britain, the United States was essentially a nation of farmers. Prominent founding fathers like George Washington and Thomas Jefferson were farmers themselves. Jefferson's vision for the United States, later termed the Jeffersonian democracy, was "a nation of landowning farmers living under as little government as possible." (Worldbook.com) As the nation expanded westward, so did agriculture—fulfilling Jefferson's vision, at least in part.

The image of a nation of small farmers still resonates. Certainly, small farm advocacy groups promote such a system. The fact that 42% of the 2.1 million farms in the U.S. are residential or lifestyle farms (Hoppe and Banker, p.11), indicates that many people still value aspects of the agricultural lifestyle. Likewise, the fact that U.S. taxpayers have been willing to subsidize farmers at an average rate of $17 billion over the last 10 years (USDA-ERS, 2006a) suggests that they, at least to a certain extent, value Jefferson's vision as well.

### Farm and Non-farm Household Income

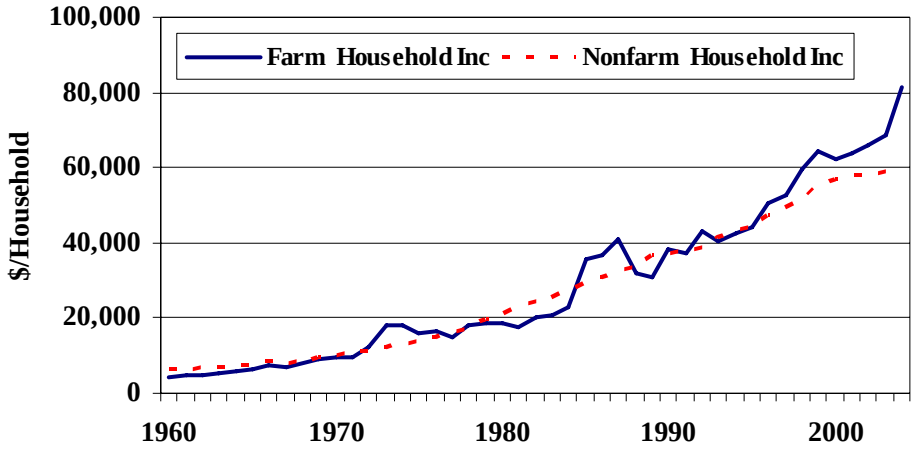
Current farm subsidies originated in Franklin Roosevelt's New Deal legislative package in 1933. At that time, average farm household income was about half of that of non-farm households (Jones, et al.). Also, in 1930, 21.5% of the U.S. workforce was employed in production agriculture that contributed 7.7% of the total U.S. GDP. With a large workforce earning income half that of their non-farm counterparts, the federal government felt compelled to provide assistance to farmers in the form of price supports and supply management.

Today, the situation in agriculture is much different. In 2000, only 1.9% of the U.S. workforce was employed in production agriculture, and agriculture contributed only 0.7%

of U.S. GDP in 2002 (Dimitri, et al.). Moreover, farm households now routinely earn more than non-farm households. Figure 1 shows farm and non-farm household income in the U.S. from 1960-2004. After reaching a level basically on par with non-farm income in the 1960s, farm household income was 33% higher than non-farm income in 2004 (Jones, et al). Based on these numbers alone, it would be hard to justify subsidizing farms on the basis of disparities in income as was originally the case when farm programs were first instituted in 1933.

**Figure 1**

**U.S. Farm and Nonfarm Household Income**




Supporters of farm subsidies may make the argument that farm income would not be greater than or equal to non-farm income without subsidies. If one considers that government payments contributed 30.6% of net farm income from 2000-06 (USDA-ERS, 2006a), that argument would seem to have some merit. However, one must also remember that not all government payments go to farmers. Since commodity program payments are tied to land, landowners benefit as well.

Farm subsidy proponents will also often point out that the majority of farm household income comes from non-farm sources. That is certainly true when household income is averaged across all farms. However, when broken out by USDA farm typology class, not all farms receive the majority of household income from non-farm sources. Table 1 shows household income from farm and non-farm sources by USDA farm typology group in 2004. Rural residence farms, which include limited-resource, residential/lifestyle, and retirement farms, had an average household annual income of $75,316. Non-farm sources were responsible for 100% of total household income for these farms. Because 42% of all farms are residential/lifestyle farms, which claim a primary occupation other than farming, it is not surprising that the average farm would earn a high percentage of household income from non-farm sources. But as table 1 also indicates, commercial farms (i.e., farms with sales over $250,000) earn over 75% of household income from farm sources. Basically this leads to the warning that people should be careful not to draw too strong of conclusions when comparing farm household income to non-farm household income.

Table 1. Household Income from Farm and Non-farm Sources by USDA Farm Typology.

| Farm Typology Group | No. of Farms | Total Farm Household Income | Income from Farm Sources | Income from Non-farm Sources | % from Farm Sources |
|---|---|---|---|---|---|
| Rural Residence | 1,373,956 | $75,316 | $-76 | $75,391 | -0.1 |
| Intermediate | 529,071 | $64,789 | $12,240 | $52,549 | 18.9 |
| Commercial | 157,795 | $191,115 | $145,080 | $46,035 | 75.9 |
| All | 2,060,822 | $81,480 | $14,201 | $67,279 | 17.4 |

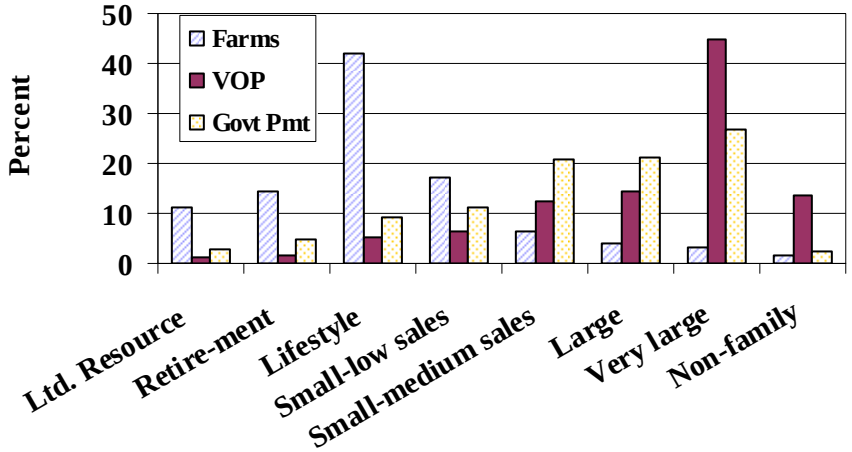
Source: USDA-ERS, Agricultural Resource Management Survey, 2004.

Equity of Farm Income Support

While the goal of saving the family farm may be noble from a social standpoint, there are questions as to whether the current farm income support programs are meeting that objective from an economic standpoint. These questions revolve around two primary issues. First, are government payments distributed equitably across the farm sector? Second, is profitability enhanced for farms that receive government payments?

According to data from USDA, only 39% of U.S. farms received government payments in 2003 (Hoppe and Banker, p. 25). Of those farms that received farm subsidies, 66% of total payments went to five commodities: corn, cotton, wheat, soybeans, and rice (USDA, CCC Net Outlays by Commodity and Function). Because medium, large and very large farms (those farms with annual sales greater than $100,000) have a higher percentage of farms that specialize in cash grains and other field crops that receive subsidies, they receive a higher percentage of payments (figure 2). This, in turn leads to criticisms that "large farms get all the payments". However, the fact that large commercial farms receive the bulk of government payments has less to do with large farms abusing subsidy programs to the detriment of small farms (as some try to make the case), than it does with the structure of the farm programs themselves. If the goal of U.S. farm income support is to save the family farm, and between 35 to 41 percent of small farms (limited-resource,

**Figure 2** **Share of farms, value of production, and government payments by farm typology group, 2003**



retirement, residential/lifestyle, and farming-occupation/low sales farms) produce beef, should beef producers not receive income supports as well? Given the current structure of farm programs and the equity issue created from tying farm program payments to specific commodities, the argument that farm subsidies help save the family farm is debatable.

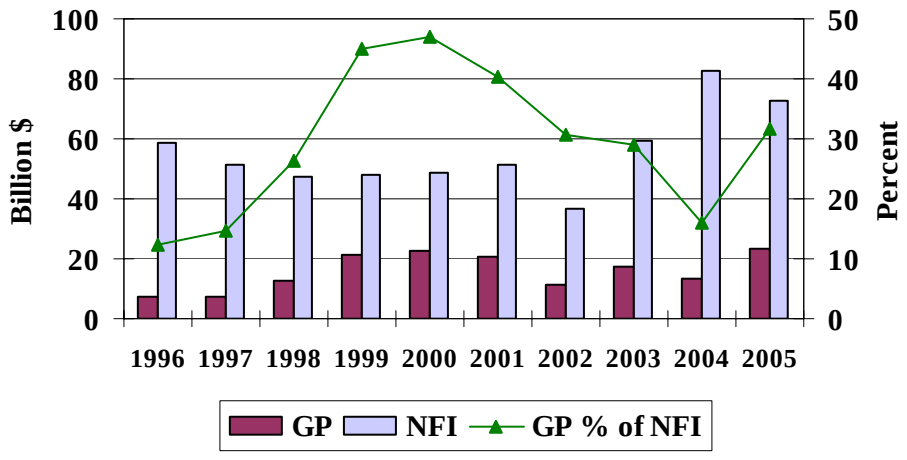
Nevertheless, government payments have contributed a significant portion of net farm income over the last two and one half decades (figure 3). But as previously mentioned, not all the benefits of government payments go to farmers, as a portion of those benefits gets capitalized into land values. This reality has two ramifications. First, it demonstrates that family farms are not the only beneficiaries of farm subsidies. Second, it indicates that as farm income would decline from a reduction or elimination of government payments, farm asset and equity values would also decline.

A study by Kastens and Dhuyvetter estimated that average cropland values by state would fall by 2.3% to 40.8% if government payments were eliminated. Certainly, a reduction in land values of that magnitude could have a devastating effect on the financial viability of many farms. The estimated decline in land values, however, assumes that 100% of government payments are capitalized into land. In reality, government payments are not likely to be fully capitalized into land values.

The greatest challenge facing most commercial farms in the U.S. is variability of income. Figure 3 shows U.S. aggregate net farm income (NFI) and direct government payments from 1997-2006. Over that timeframe, NFI averaged $57.2 billion per year, with a range from $40.2 billion in 2002 to $85.4 billion in 2004. Government payments, as previously noted average $17 billion during those same years, accounting for 31% of NFI. Certainly, farm income is variable and government payments have contributed a significant share of income over the last 10 years. However, the aggregate U.S. data actually mask income variability and the importance of government payments associated with some regions and commodities. Even though not all farms will become unprofitable if government payments are eliminated, it is also important to realize that in some years, in some regions, government payments contribute a large portion of NFI. Undoubtedly, an

**Figure 3**

**U.S. Net Farm Income and Direct Government Payments**



immediate elimination of farm programs would have severe consequences for farmers and rural communities historically dependant on those programs. How farms manage the variability of income, especially if farm programs were to be reduced or eliminated, will be a big factor in determining the long-term success of a farm. Because the U.S. has chosen to help some farmers manage risk through farm supports does not imply that there are not other means to manage financial risk.

**Supporting Rural Communities**

Oftentimes the words “farm” and “rural” are used interchangeably. In the past, such use may have been reasonable. Today, however, that likely will not be accurate. According to information in USDA’s 2007 Farm Bill Theme Paper on Rural Development, “less than 10 percent of rural people currently live on a farm and only 6.5 percent of the rural workforce is directly employed in farm production.” That compares to 40 % of the rural population living on farms, with 33 percent of the rural workforce directly employed in agriculture in 1950. Although only 10% of the rural population currently lives on farms, 20% of rural counties are classified as farm-dependant (greater than 20% of county personal earnings come from farming). Of those counties, 78% had a population loss from 2000-2005. The poor economic performance of these farm-dependant counties and subsequent population losses have led to subsidies being viewed as a remedy for rural America.

By supporting farm income through farm programs, proponents of farm subsidies argue that these programs help save rural communities as well. The logic of this argument is straightforward. If farmers make more money, that money will then be spent in the community—stimulating economic growth. In other words, if farmers are doing well, then rural communities will do well. If one follows the logical progression of this argument then one would expect rural communities that receive high amounts of farm subsidies to perform well economically. However, a recent study by the Center for the Study of Rural America of the Federal Reserve Bank of Kansas City suggests that such an argument may not hold. Instead of growing, U.S. counties that were most dependent on farm payments relative to the local economy actually experienced job and population growth rates lower than counties less dependent on payments. As the article points out though, it is possible that economic performance would have been even worse without the payments.

The question that naturally comes to mind when seeing such results is: Why do most counties that are most dependent on farm payments perform worse than other rural counties? There are several possible explanations. First, the government payments themselves may have a negative impact. Programs such as the marketing loan program encourage production above market clearing levels. That, in turn, keeps prices lower than they would otherwise be without the loan program. In such a scenario, the low cost producer will be most profitable. Moreover, low cost producers have advantages over their high cost counterparts in lowering costs. Low cost producers can afford to outbid other producers in acquiring land, which enables them to get larger and spread fixed assets such as machinery over more output. This process encourages farms to get larger in order to be profitable. Since there is a limited amount of farmland available, not all

farms can expand to remain profitable. Consequently, farms go out of business and the economic viability of communities suffers.

A paper by McGranahan and Beale offers some other possible explanations for rural population loss. Although poverty rates declined in 85% of rural counties in the 1990s, many farm-dependent counties continued to experience population loss. However, it is not necessarily the economic viability of agriculture in farm-dependent counties that is causing population loss. As McGranahan and Beale state:

> "what distinguishes farm-dependent counties from other rural counties is less the presence of farming than the absence of nonfarm activities. Farm-dependent counties are more likely to be remote from metro areas, to have low population density, and to lack natural amenities. These characteristics, which discourage other types of development, account for much of the population loss in farm-dependent counties."

Because rural residence and intermediate family farms are dependent on nonfarm income (table 2), Browne, et al. suggest in *Sacred Cows and Hot Potatoes* (p. 35) that rural communities may be better served by "programs which facilitate the development of rural nonfarm economies." In other words, if the goal is to strengthen the economic viability of rural communities in the U.S., that goal may be more efficiently accomplished by devoting resources to nonfarm endeavors than continuing to rely on commodity programs to drive economic activity in rural communities.

**Cheap Food Supply**

One of the most popular justifications farm subsidy advocates offer for the need to continue to subsidize agriculture is that U.S. consumers spend less on food than any other nation. Since peaking at a high of 25.2% in 1933, figure 4 shows the percentage of disposable personal income spent on food in the U.S. has steadily dropped to 9.5% in 2004 (USDA-ERS, 2006b). Over that period of time, real disposable personal income has experienced a 14.3 fold increase while the amount of money spent on food has increased only 4.7 times. When compared to other countries in terms of the amount of money spent on food as a percentage of all household expenditures, U.S. consumers easily spend the lowest amount (table 2). Although U.S. consumers spend a smaller share of all household expenditures on food, it must be noted that total household expenditures are significantly higher in the U.S. than the other countries listed in table 2.

Are farm subsidies responsible for the fact that U.S. consumers spend relatively less on food than other countries? A recent paper addresses that question. Miller and Coble evaluated the impact that U.S. farm subsidies had on the proportion of disposable income spent on food. The study concluded that from 1960-1999, government payments to farmers were not statistically significant in determining the percentage of disposable income spent of food. Rather, disposable income, productivity, and the farm-to-retail spread of food commodities had a statistically significant impact on the proportion of disposable income spent on food.

**Figure 4**

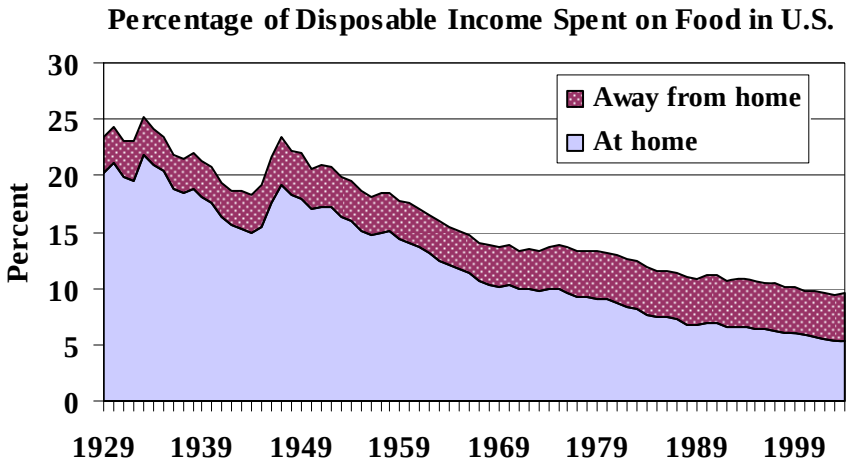



Table 2. Share of Household Final Consumption Expenditures Spent on Food by Selected Countries, 2002.

| Country | Food Share of Household Expenditures (%) | Household Consumption Expenditures Total ($) | Food ($) |
|---|---|---|---|
| United States | 6.9 | 25,590 | 1,775 |
| United Kingdom | 9.1 | 16,867 | 1,543 |
| Canada | 9.9 | 12,715 | 1,264 |
| Germany | 11.9 | 13,663 | 1,624 |
| Japan | 14.4 | 17,456 | 2,517 |
| France | 14.8 | 13,106 | 1,939 |
| Mexico | 24.5 | 4,394 | 1,075 |
| India | 39.7 | 313 | 124 |
| Philippines | 47.5 | 667 | 317 |

Source: USDA-ERS, 2005.

The argument that farm subsidies provide a cheap food supply to U.S. consumers does not withstand scrutiny. The argument is especially misplaced with commodities such as milk and sugar that are beneficiaries of price supports and supply controls that keep the prices U.S. consumers pay above world equilibrium prices. Such policies are especially burdensome on the poor, who spend a higher portion of their disposable income on food.

**Maintain the Environment**

Another popular justification for farm programs in general is that they help farmers maintain the environment. The argument made by farm program supporters is that in agricultural production, there are costs in terms of environmental degradation that are not covered by the market. Consequently, government policies are needed to compensate farmers for environmental practices that are not supported by the market. Environmental degradation in agricultural production can take place in two forms. The first type is environmental loss that occurs exclusively on the land being farmed. An example of this form of loss would be cropland that diminishes in productivity due to soil erosion. In

such a situation, the relevant question is, Do the costs of maintaining the soil outweigh the benefits to the farmer? If the costs are higher than the benefits, then the argument could be made that society may be well served by implementing policies that would encourage soil conservation practices (through subsidies, incentives, and/or regulations). However, even in this case, as long as land is transferable, there is a market incentive for the farmer to maintain the soil. If the market benefits from soil conservation outweigh the costs, then there are sufficient incentives for farmers to adopt conservation practices, without government intervention.

The second form of environmental loss is externalities that affect not the farmer, but others. Examples of externalities from agricultural production include soil sediments in rivers and other bodies of water, contamination of groundwater from chemicals and fertilizers, blowing dust, and odors from confined livestock operations. Unlike environmental losses exclusive to the farmer, the market may not address these external costs. Once again, if that is the case, then society may benefit from government intervention.

If government intervention is deemed appropriate for reducing externalities in agriculture, the next logical question is, What type of program(s) is best suited to accomplish that goal? Supporters of income support programs may argue that these programs would help provide market incentives for conservation practices. Certainly, income support programs may provide increased income, but they also result in higher costs in terms of land rents. Therefore, whether income support programs provide sufficient incentives for farmers to implement conservation practices is debatable.

There is little debate, however, that income support programs can result in some unintended environmental consequences. Notably, income supports such as marketing loans, counter-cyclical payments, and direct payments provide incentives for farmers to produce crops on environmentally sensitive (and likely less profitable) land that otherwise may not be cropped. Likewise, these programs encourage the use of fertilizers and chemicals above market equilibrium levels. Excessive use of fertilizers and chemicals can have significant negative environment consequences. Based on these consequences, it is questionable whether income support programs provide a net benefit to the agricultural environment.

**Compete with Subsidizing Countries and Large Agribusinesses**

A final justification offered for farm subsidies relates to the ability of U.S. farmers to compete with large domestic agribusinesses and subsidized foreign farmers. In terms of the domestic agribusiness justification, the basic argument is that given the market structure of general commodity production, farmers are pinched between a few large input suppliers and a few large commodity purchasers. In other words, large input suppliers have the advantage of market power on the cost side of farming while large grain and livestock processing companies have the advantage of market power on the revenue side of farming. Consequently, the “typical” farmer has little to no market power.

Another reason given for the need for farm subsidies is to compete with other countries that subsidize their producers. Ultimately these subsidies would reduce world prices, causing the prices U.S. farmers receive to drop as well. Subsidies are then needed in the U.S. to make up for the lower prices farmers are receiving. Another reason given for U.S. subsidies is that U.S. producers are priced out of foreign markets by export subsidies, price support programs, and/or import restrictions enacted by other countries.

Agribusiness Competition

As previously mentioned, large agribusinesses are frequently accused of exercising market power to the detriment of small farmers. Given this accusation, two relevant questions come to mind. First, is there evidence that large agribusinesses routinely exercise market power at the expense of small farmers? Second, if market power is exercised, does it warrant subsidies to U.S. farmers.

A number of economic studies have been conducted over the last couple of decades to determine whether large agribusinesses systematically exert market power against U.S. farmers. A summary of these studies is discussed in Tweeten and Thompson (p. 128-138). The general conclusion that can be drawn from these studies is that agribusiness markets "are imperfectly competitive, but cost efficiencies resulting from greater concentration exceed losses from market power distortions" (p.142). More specifically, U.S. farmers are not hurt by the application of market power of agribusinesses, and consumers gain from lower costs brought forth from economies of scale. Actually, the concentration of agribusinesses on the input supply side of farming may benefit farmers through gains in research and development and production efficiencies that would not be possible if production were diffused among more numerous, smaller companies. Likewise, farmers may also benefit from advertising campaigns used by large processing and retail agribusinesses that increase the demand for food. Therefore, the strongest conclusion that may be drawn from this discussion is that justifying farm programs on the basis of competition with large agribusinesses is, at best, a weak argument.

Foreign Subsidies and Trade Barriers

Trade between countries occurs when it is mutually beneficial to the buyer (importer) and seller (exporter). After instituting protectionist trade policies in the 1930s, U.S. agricultural exports did not recover their share of farm marketings until the late 1970s (Pasour p. 160). In recent years, exports have been crucial to many agricultural commodities.

Compared to the high level of agricultural exports in the early 1980s, exports as a share of production have risen for some commodities and fallen for others. Whether exports as a share of production have risen or fallen over the last two decades, they are very important for many commodities in the U.S. For example, nearly 47% of food grains and 57% of cotton/tobacco were exported in 2002 (USDA, 2003). Obviously, exports are critical to U.S. agriculture. So policies, both domestic and foreign, that are conducive to trade are generally beneficial to U.S. farmers. However, global trade is extremely complex as it is influenced by many factors outside the control of the interested

participants. These factors include macroeconomic issues such as exchange and interest rates, other trade policies, such as trade barriers on other products or commodities, and foreign policy actions. Because of the impact that these factors may have on U.S. farms, producers call for farm subsidies.

The relevant question then becomes: Do farm subsidies benefit U.S. farmers in light of other countries' subsidies and protectionism? Because trade is complex, the answer to the posed question is complex. Certainly, farmers in the U.S. are affected by the farm and trade policies of other countries. A typical result of those actions is to lower the price that U.S. farmers receive for their goods—whether those actions are by subsidies or trade barriers. A typical response in the U.S. is to institute subsidies or trade barriers. That response has economic implications as well.

If the U.S. implements price supports or import restrictions, U.S. producers will likely experience higher prices. But those higher prices will have implications beyond what the producer will receive. First, higher U.S. prices cost U.S. consumers of those products—a fact that is often overlooked and contrary to the "cheap food supply" justification of farm subsidies. That additional cost will also reduce the quantity demanded by U.S. consumers, putting downward pressure on U.S. domestic prices. Second, U.S. actions will affect our ability to export. To the extent that the U.S. institutes price support or pseudo price support (i.e. marketing loan) programs that ultimately result in increased production and reduced market prices, it can be expected that exporting countries affected U.S. actions will respond with subsidies or protectionist measures of their own.

Although it may be known that subsidies or trade barriers may be harmful to the overall economy, it may not be politically expedient to stand by while a domestic industry suffers because of the actions of another country. This is why trade negotiations are so difficult. A recent report from the Organization for Economic Cooperation and Development (OECD) estimated that $44 billion in welfare gains would be generated if subsidies and trade barriers throughout the world were halved. Another study by the International Food Policy Research Institute (IFPRI) estimates that there would be $200 billion in income gains in the global economy if trade was fully liberalized (Bouet, et al.). Those who had the highest support and protection would gain the most from the reforms. However, local political interests often outweigh larger economic benefits, (as evidenced by the recent suspended WTO trade negotiations) making reductions in subsidies and trade barriers difficult to achieve.

**Summary**

This paper discusses five of the most common economic justifications for farm subsidies. When analyzed in depth, those justifications are not always as valid as they may seem at first. Certainly, there are challenges facing U.S. farmers. Problems of variability of income are real to many farmers and rural communities. From the 1930s onward, the reaction of the U.S. government to these challenges has been to subsidize selected farm commodities. Those subsidies, however, often have unintended consequences that mitigate their intended purposes. Likewise, as time goes by, programs can become outdated and ineffective. So while the goal of farm subsidies may be noble, their actual

effect may be limited. Therefore, the question rising out of this discussion may not be, Should we eliminate farm subsidies? Rather, the question may be, Are there farm policy options that would better serve U.S. agriculture, taxpayers, and consumers?

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# The 2007 Farm Bill: Status Quo With Adjustments

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In the policy world of options and consequences, one option is always to maintain the status quo. For federal farm programs, that implies re-authorizing or extending the basic three-part farm income safety net established in the 2002 Farm Bill.

**Three-Part Safety Net Program**

That safety net includes marketing assistance loans, direct payments, and counter-cyclical payments that work together in an integrated net to provide protection based on a target price level for the various program commodities. The original rates implemented in the 2002 Farm Bill are listed in Table 1.

**Table 1. Loan Rates, Direct Payment Rates, and Target Prices for Covered Commodities**

| | Loan Rates | | Direct (Fixed) Payment Rates | Target Prices | |
|---|---|---|---|---|---|
| | 2002-2003 | 2004-2007 | 2002-2007 | 2002-2003 | 2004-2007 |
| **Corn (bu)** | $1.98 | $1.95 | $0.28 | $2.60 | $2.63 |
| **Sorghum (bu)** | $1.98 | $1.95 | $0.35 | $2.54 | $2.57 |
| **Barley (bu)** | $1.88 | $1.85 | $0.24 | $2.21 | $2.24 |
| **Oats (bu)** | $1.35 | $1.33 | $0.024 | $1.40 | $1.44 |
| **Wheat (bu)** | $2.80 | $2.75 | $0.52 | $3.86 | $3.92 |
| **Soybeans (bu)** | $5.00 | $5.00 | $0.44 | $5.80 | $5.80 |
| **Minor oilseeds (lb)** | $0.0960 | $0.0930 | $0.0080 | $0.0980 | $0.1010 |
| **Rice (cwt)** | $6.50 | $6.50 | $2.35 | $10.50 | $10.50 |
| **Upland cotton (lb)** | $0.5200 | $0.5200 | $0.0667 | $0.7240 | $0.7240 |
| **Peanuts (ton)** | $355.00 | $355.00 | $36.00 | $495.00 | $495.00 |

The three-part safety net starts with the marketing assistance loan program, which provides income support based on the national average loan rates as listed in Table 1 for each program commodity. This support comes as loan proceeds in the amount of the loan rate for each unit of commodity pledged under the loan program. The loan program has changed over the years to become a marketing loan, meaning that the program allows for the loan to be repaid by the producer at a rate based on the market price. If market prices are below the loan rate, the loan can be repaid at the lower of the posted county price, which reflects the local market prices, or the loan rate plus interest. When the loan is repaid at a posted county price below the loan rate, the difference between the loan rate and the repayment rate is called a marketing loan gain (MLG) and represents a benefit to the producer. Alternatively, a producer can request a loan deficiency payment (LDP) in lieu of a loan. The LDP is equal to the same difference between the loan rate and the relevant posted county price. The marketing loan program benefits in the form of MLGs or LDPs are subject to a $75,000 per person payment limit or a $150,000 limit under the three-entity rule with current farm program rules, although other features of the marketing loan program allow for loan repayment with certificates or through forfeitures that effectively preclude the impact of these payment limits for most producers.

The direct payment is the second part of the current safety net. It first appeared in the 1996 Farm Bill and guarantees a fixed payment to producers based on the producer's base acreage and program yield history multiplied by a fixed payment rate and then multiplied by 85 percent. The direct payment insures a payment to producers regardless of production or market price and also allows producers almost unlimited flexibility to grow any crop, except for fruits and vegetables, on the direct payment acre. Direct payments are subject to a $40,000 per person payment limit, or $80,000 under the full effect of the three-entity rule.

Counter-cyclical payments are the third part of the safety net established in the 2002 Farm Bill. They provide a payment based on the difference between the target price as listed in Table 1 and the effective market price for the commodity. That rate is then multiplied by the producer's based acreage and program yield history multiplied by 85 percent. The effective market price is equal to the direct payment rate plus the higher of the marketing loan rate or the actual national average market price. Counter-cyclical payments are subject to a $65,000 per person payment limit, or $135,000 under the full effect of the three-entity rule.

**2007 Farm Bill Proposals**

There have been several calls for maintaining the basic elements of the 2002 Farm Bill in the new legislation. In USDA's farm bill proposals released in late January, the basic structure of the three-part safety net was retained, although the counter-cyclical payment would shift from a price-based payment to a revenue-based payment. USDA also proposed some adjustments in the basic rates of the marketing loan and direct payments as shown in Table 2.

**Table 2. USDA Farm Bill Recommendations for Marketing Loan Rates and Direct Payments**

| | Loan Rates | | | Direct (Fixed) Payment Rates | | |
|---|---|---|---|---|---|---|
| | Current | Average of Proposed Rates, 2008-2012 | Proposed Maximum | Current | Proposed 2008-2009, 2013-17 | Proposed 2010-2012 |
| **Corn (bu)** | $1.95 | $1.89 | $1.89 | $0.28 | $0.28 | $0.30 |
| **Sorghum (bu)** | $1.95 | $1.89 | $1.89 | $0.35 | $0.35 | $0.37 |
| **Barley (bu)** | $1.85 | $1.70 | $1.70 | $0.24 | $0.25 | $0.26 |
| **Oats (bu)** | $1.33 | $1.21 | $1.21 | $0.02 | $0.02 | $0.03 |
| **Wheat (bu)** | $2.75 | $2.58 | $2.58 | $0.52 | $0.52 | $0.56 |
| **Soybeans (bu)** | $5.00 | $4.92 | $4.92 | $0.44 | $0.47 | $0.50 |
| **Minor oilseeds (lb)** | $0.0930 | $0.0870 | $0.0870 | $0.0080 | $0.0080 | $0.00857 |
| **Rice (cwt)** | $6.50 | $6.50 | $6.50 | $2.35 | $2.35 | $2.52 |
| **Upland cotton (lb)** | $0.5200 | $0.4570 | $0.5192 | $0.0667 | $0.1108 | $0.1108 |
| **Peanuts (ton)** | $355.00 | $336.00 | $336.00 | $36.00 | $36.00 | $38.61 |

USDA specifically proposes to establish the marketing loan rates at 85 percent of the five-year Olympic average market price (eliminating the high and low years), subject to a maximum loan rate as established in the U.S. House of Representatives version of the 2002 Farm Bill. The change in maximum rates would mean lower loan rates for most commodities, particularly for upland cotton. USDA also proposes direct payments that are predominantly in keeping with the existing direct payment rates for the first two years of the new farm bill before increasing slightly over the last three years of a presumed five-year farm bill before reverting to the former rates at the end of the next farm bill.

USDA also proposes some modifications in the mechanics of the current safety net programs. Most significantly, the posted county price for loan repayment would shift from a daily calculation to a monthly

calculation and the posted county price for purposes of the LDP would apply to the day beneficial interest is lost, removing the flexibility to establish the LDP or loan repayment rate separately from the time of cash marketing.

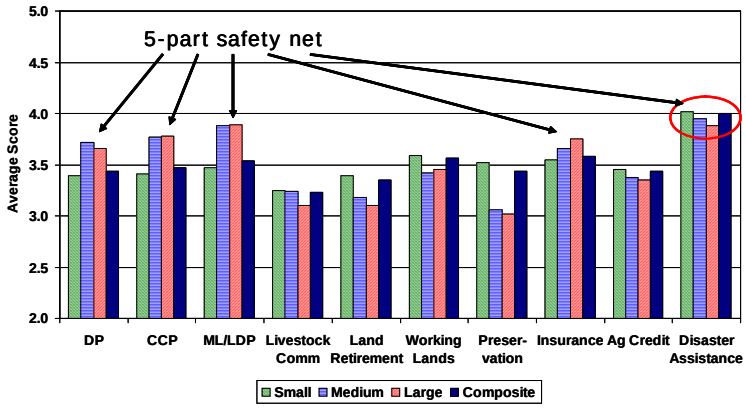
The marketing loan program and the direct payments as proposed by USDA represent only part of the proposed safety net. The third leg of USDA's proposal shifts the counter-cyclical payment based on price to one based on revenue as discussed in the revenue safety net paper.

Several other groups have offered support for the existing safety net. The National Association of Wheat Growers and the American Soybean Association have both offered formal recommendations to retain the basic elements of the existing safety net. The wheat growers have argued for increases in direct payments and target prices and the soybean growers have proposed higher loan rates and target prices.

**Five-Part Safety Net Issues**

While the existing farm legislation focuses on the existing three-part safety net from the 2002 Farm Bill, the debate encompasses a much larger discussion of several programs that represent a mix of price, production, and revenue tools. On top of the three-part safety net, producers have also benefitted from insurance programs that have become more innovative and more attractive in terms of protection and premium subsidies. And, producers have often seen and expected disaster assistance in recent years, even though it is neither formally authorized nor budgeted. In a recent nationwide survey conducted at the University of Nebraska-Lincoln in conjunction with 26 other states, thousands of agricultural producers were queried on their policy preferences heading into the new farm bill (for more information on the survey, see the national report on the web at www.farmfoundation.org or at www.agecon.unl.edu/pub/2007farmbill.pdf). In response to a question about existing program priorities, producers ranked several programs on a scale of 1 (least important) to 5 (most important). The results, broken down by the size group of the producer respondents, show this broad support for the basic farm income safety net (Figure 1).

**Figure 1. Existing Program Funding Priorities**




Note: Average scores by size category (1 = least important, 5 = most important).

Among existing programs that provide farm payments, producers ranked disaster assistance as the highest priority (circled in the graph in Figure 1). While this ranking may reflect the survey having been conducted in a time period during which Congress was considering potential disaster assistance, it is indicative of the priority producers put on existing programs of farm income support. Furthermore, the label "5-part safety net" points to the rankings of the medium- and large-scale producer segments, both of whom put disaster assistance, insurance, and the existing "three-part" safety net" above all other priorities, including the range of conservation programs from land retirement (such as CRP and WRP) to working lands programs (such as EQIP and CSP) to preservation programs. These two segments of commercial-size agricultural producers clearly place the safety net as a high priority in the farm bill debate.

**Related Issues**

Beyond the basic structure of the commodity programs and the farm income safety net, there are some policy issues that will be addressed in any re-authorization of the status quo. Three issues likely to be

discussed as potential adjustments to the status quo include payment limits, fruit and vegetable planting restrictions, and permanent authority for disaster assistance.

Payment limits have been a topic of debate for some time and are likely to again be part of the primary debate on the farm bill. Current payment limit rules set individual payment limits per person at $40,000 for DPs, $65,000 for CCPs, and $75,000 for ML/LDP benefits. In addition, a person can qualify for full payments in one entity, plus up to half the payments in a second and third entity. This three-entity rule means that the individual combined limit of $180,000 could equal up to $360,000 per person, if all individual categories are maximized. In addition, the marketing loan program includes language allowing repayment of commodity loans with certificates such that the loan gains would not count against the limit. All three of these issues - the individual payment limits, the three-entity rule, and the unlimited certificate loan gains - are likely to be debated.

Potential changes could lower the overall limits and reduce payments to some program participants, theoretically reducing program spending. USDA's proposed farm bill recommendations would attribute payments directly to individuals, eliminate the three-entity rule, and make modifications to the overall payment limits for each part of the program. More significantly, USDA proposes a change in the program eligibility rules for adjusted gross income. The current eligibility rules state that to be eligible for farm programs, individuals must have an average adjusted gross income of $2.5 million or less or have at least 75 percent of the adjusted gross income from agricultural activities. The proposed rules would shift the cap to $200,000 and eliminate the 75-percent exclusion.

Alternatively, such changes may push producers to simply adjust their business structure to legally comply with any changed rules without leaving potential program payments unclaimed. Regardless of any changes, this issue will likely continue to be a primary focal point for debate.

The fruit and vegetable planting restriction is also due to be addressed within the scope of existing commodity programs and could particularly impact dry bean producers in Nebraska and other Great Plains regions. Under current program rules, producers cannot enroll in the DP and CCP program and also plant fruits and vegetables on the enrolled acreage. This planting restriction dates back several years. As producers were given more flexibility to make cropping decisions without giving up program payments, this restriction prevented them from shifting acres to fruit and vegetable production and directly competing with specialty crop growers who did not received direct crop support payments. The planting restriction became an issue in the WTO cotton case filed against the United States by Brazil. Since the planting restriction was interpreted to be affecting production decisions, the DPs, which were thought to be decoupled from production and thus, trade-legal, were found to not be fully decoupled and thus counted against U.S. spending limits.

In the aftermath of the WTO dispute, it has been widely expected that the restriction would be removed to eliminate the trade impact. However, that brings the fruit and vegetable industry to the table with major concerns over farm programs and spending. If the planting restriction disappears, the specialty crop sector has argued that they need part of the farm program spending pie. They have also argued that the value of fruit, vegetable, and other specialty crop production is fully half of the nation's value of crop production in 2006 (USDA-ERS) and thus, are deserving of program support in the billions of dollars on par with program commodities, perhaps as much as 50 percent, or $4.7 billion of the estimated $9.4 billion in spending on direct and counter-cyclical payments to program crop producers in 2006 (USDA-ERS).

Conversely, the potential economic impact on fruit and vegetable growers of eliminating the planting restriction might be estimated by the value of government payments a producer would have to give up to make the switch in production. Using the $9.4 billion estimate from 2006 spread over approximately 350 million crop acres enrolled in the federal farm program (USDA-FSA), the average government payment was approximately $27 per program base acre. If that amount were budgeted over the approximately 12 million acres nationwide of fruits, vegetables, dry beans, and potatoes (2002 Census of Agriculture), the equivalent annual payments might amount to $324 million. It is clear that the political question of what to

do with fruits and vegetables is far from decided. The simple calculations above potentially put boundaries on the debate, but the range of just over $300 million to more than $4 billion is hardly concise. USDA's proposed farm bill recommendations include the elimination of the planting restriction and the proposed addition of more than $500 million per year for fruit, vegetable, and specialty crop programs on market development, food program purchases, and production research.

Finally, the role of agricultural disaster assistance, its regular implementation over the past several years, and its political support among producers have led to some calls to make it permanent. Currently, disaster assistance has been *ad hoc* authority developed by Congress to address production and/or economic losses in agriculture from year to year. In regularly passing some form of assistance on an *ad hoc* basis, Congress is often challenged to declare it emergency spending or to find funding by cutting spending in other areas. The two recent disaster assistance packages passed in 2003 for 2001 and 2002 losses and in 2004 for 2003 and 2004 losses both were funded in part by cutting spending projections for conservation programs. This continual fight for funding is part of the reason any potential assistance for losses from the 2005 crop year is still unresolved. Making disaster assistance permanent would simply add the authority for the program to be carried out each year as needed. Of course, making it permanent would also add several billion in expected spending levels to the farm program at a time when budget, trade, and political constraints may not allow it.

# Sugar and Dry Beans

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In the Nebraska Panhandle, two key crops are sugarbeets and dry edible beans. Rotations in western Nebraska depend on these crops because neither soybeans nor grain sorghum are economically viable in the region. In addition, a significant infrastructure related to these crops has been developed over the past one hundred plus years. Both of these crops generate as much economic activity from processing as they do in farm level crop revenue. These are truly value added agriculture opportunities for the region. Grower owned cooperatives process all of the sugarbeets, and a portion of the dry beans in the area, giving the producers another potential income stream as these crops move through market channels.

Neither sugarbeets nor dry beans are considered commodity crops in the traditional sense when farm bill discussions begin. Although the crops have far different farm program ties, neither of them is included in any type of direct payment or marketing loan program. Dry beans rely on the Fruit and Vegetable Planting Restriction (FAV), while the sugar industry relies on a complex combination of tariff-rate import quotas, domestic marketing allotments, and price supports designed to control supply and maintain price while avoiding cash payments to growers.

**Sugar**

The sugar industry has been supported by some form of policy since the Sugar Act of 1934 was passed requiring the Secretary of Agriculture to balance domestic use with domestic production and imports by assigning each producer and importer a quota. This program stayed in place for forty years, until 1974 when high sugar prices caused Congress not to renew the legislation.

As surplus sugar was becoming burdensome, and sugar prices had dropped, the Food and Agriculture Act of 1977 placed supports back onto the domestic sugar crop in the form of purchases and loans, while using import duties and fees to maintain domestic prices.

Sugar policy as we know it actually originated in the Food and Agriculture Act of 1981 when a nonrecourse loan program was developed to protect sugar prices and production in the domestic market. In addition, a sugar import quota system was developed in May of 1982 to keep imported sugar from depressing prices below a level that would entice processors to forfeit sugar to the Commodity Credit Corporation (CCC) as sugar went below the loan rate. In 1990, these quotas were changed to a tariff-rate quota system due to a GATT challenge to the original quota system. In 1985, a provision was included to require administrators to manage sugar policy such that there would be no cost to the treasury from the forfeiture of sugar to the CCC of sugar placed into the loan program. In 1996, the no-cost provision was dropped from the legislation, and it returned in 2002. What this has done is place production under domestic marketing allocations to control production and hold price above the loan rate.

The Farm Security and Rural Investment Act of 2002 has continued our history of price supports for sugar at “no-net cost” to the Federal Budget. This is still done with tariff-rate quotas to control imports and marketing allotments for domestic sugar companies limiting the amount of sugar that they can market in a year to a level that keeps the price high enough to avoid forfeiture of nonrecourse sugar under the loan program to the CCC.

The NAFTA agreement with Mexico will open the United States borders for additional non-tariff sugar beginning in 2008. Under this scenario, the Secretary of Agriculture would be required under 2002 farm bill

provision to suspend marketing allotments when projected sugar imports exceed 1.532 million short tons. Previously, the expectation that imports would exceed 1.532 million short tons would suggest that there was a production shortfall in the U.S., bringing with it higher prices and interest in increasing production, thus the suspension of marketing allotments. As Mexico gains access to U.S. markets, and expected imports will exceed the threshold, all of the rules will have changed. Now imports may be too high, because of excess imports from Mexico, and not because U.S. production is low. Suspending marketing allotments under this scenario would further depress market prices, and encourage forfeiture of sugar to the CCC. The current recommendation is to remove the provision to suspend marketing allotments when prospective imports are above the 1.532 million short ton limit, allowing the Secretary of Agriculture to further reduce domestic production in an effort to maintain prices above the loan rate and continue to run the sugar program at “no-net cost.”

Sugar policy is always “at risk” in international trade negotiations, because of its inherent trade distorting provisions. Because of this, one can always assume that the life expectancy of the current policy is tenuous at best. Sugar producers have begun to consider the idea of stepping into the same line as other commodity producers and asking for a direct payment based on historical planted acres. Because the present sugar policy lives by the “no-net cost” battle cry, the idea of direct payments has not garnered much support at the present time.

**Dry Beans**

Dry beans have been a part of the Fruit and Vegetable (FAV) provisions under existing legislation and are continuing to use that designation for political strength. The U.S. fruit and vegetable industry is 20 percent of U.S. agriculture exports and 33 percent of value of production at the farm gate. At the same time, these crops were produced on 13 million acres, or approximately 3 percent of the U.S. farm land. This sector includes over 100 separate commodities from tree fruits to potatoes to melons to dry beans. With this diversity, one can imagine the difficulty in development of policy that pleases all of these growers.

Fruit and vegetable growers have not been concerned with farm program provisions through most of our farm support history. These are traditionally higher value crops and usually difficult to enter and exit as prices rise and fall. Historically, commodity crops such as, wheat, corn, soybeans, rice, etc. have been required to be grown on base acres under the program provisions. In 1990, planting flexibility was included in the farm bill. With planting flexibility, producers could plant most anything they wanted on program acres and still receive payments based on historical commodity acres. The fruit and vegetable growers were successful in getting a provision inserted into the language that limited the planting of fruits and vegetables to non base acres. In other words, if the land had corn or wheat history, a grower cannot plant fruits or vegetables on those base acres. If my farm is 500 acres and I have 400 acres of corn base that I receive payments on, I am only allowed to plant 100 acres of something considered to be a fruit or vegetable without receiving some type of penalty in terms of reduced government payments.

This program allowed fruit and vegetable growers some ability to control the number of acres planted to these crops, while not participating directly in the farm program payment system. The 2002 farm bill continued with decoupled direct payments that were considered to be “green box” or minimally trade distorting and thus not subject to limitations. Included in the 2002 legislation is the FAV provision limiting fruits and vegetables on base acres. In March 2005, the WTO ruled that the U.S. direct payments for cotton do not meet the definition of decoupled because of the restriction of planting fruits and vegetables on those acres. By default, this places the direct payments for all commodities under question. If the FAV provision is lost, production of fruits and vegetables will be possible on all base acres without restriction.

The fruit and vegetable industry has asked fro something to offset this loss in the 2007 farm bill. Most of the industry realizes that there are significant barriers to entry for most FAV restricted crops. There are labor constraints, agronomic concerns, specialized equipment, and many other crop production issues that make it difficult to get into most of these crops with ease. These growers have asked for assistance in the trade title, the conservation title, the nutrition title, the research title, and in the rural development title. The

majority of producers do not want a direct payment to replace the present FAV provision, but would like to be represented in the farm bill under these other titles.

In the dry bean industry, there is concern that the crop will be planted by producers on acres that have no history, but do have significant direct payments. It is believed that the potential advantage that these producers will have over traditional dry bean growers will range between $27 per acre to $41 per acre. For crops like dry beans, there are few barriers to entry. Producers with typical soybean equipment and complimentary climate conditions can get into dry bean production at little cost with limited risk. If these producers enter the dry bean market, it is believed that they will have nearly a $2 per cwt advantage in the market. This equates to somewhere between 15 and 30 percent. Although dry bean producers are interested in the trade, conservation, research, and other provisions, they believe that the direct payment of $27 to $41 per acre will be needed to level the playing field.

For both sugarbeet and dry bean producers, the farm bill discussion has a different view than it does for the typical Nebraska producer. In the Panhandle, many of the irrigated producers are both sugarbeet and dry bean growers bringing a double shot of concern to these issues.

# Revenue-Based Safety Net Programs

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Leading up to the 2002 Farm Bill, much debate centered on the need to provide an enhanced safety net for crop producers when prices decreased. Crop producers received direct payments and marketing loan program payments averaging nearly $10 billion per year from 1999-2001, but that was deemed insufficient, and Congress intervened to provide a total of $19.5 billion in market loss assistance (MLA) payments over those three years. However, instead of having to ask Congress for ad hoc assistance every year, farm groups petitioned their representatives to formalize the MLA payments into a permanent program. As a result, the counter-cyclical payment (CCP) program was created. This program makes payments to farmers on historical production when the average U.S. market price falls below the effective target price for that commodity. Through 2006, an estimated $9.6 billion has been paid out through the CCP program.

With two of the three commodity safety net programs tied to price, it is fair to say that producers of commodity program crops should be well covered in low price environments. But does that imply that the safety net is now sufficient? Given the fact that an average of $1.3 billion in crop disaster aid has been paid out annually from 1999-2006 suggests that the current combination of safety net programs is not sufficient. The primary problem with safety net programs that are tied to price is that they are not very effective in high price/low yield environments. Consider wheat for example. The wheat yield in Kansas in 2002 averaged 33 bushels per acre, which was significantly below record yields in recent years. Because of the low production in Kansas and other regions of the U.S., the market year average price rose from $2.72/bushel in 2001 to $3.41/bushel in 2002. Because the market price was above levels that triggered counter-cyclical payments or loan deficiency payments (LDPs), no payments were made. The lack of CCPs and LDPs was one of the reasons net farm income in the U.S. was lower in 2002 than any other over the last ten years. Similar circumstances also occurred in 2006.

Economically, there is a strong argument for a redesigned safety net that more effectively focuses on a bottom line revenue or net farm income goal instead of the current multitude of safety net tools that variously focus on price, production, or some mix of the two. The previous example demonstrates that the current mix of safety net programs have some holes. As the 2007 Farm Bill proposal from the Bush Administration states:

> "By failing to take into account actual production per acre, current counter-cyclical payments tend to under-compensate producers when yields decline and over-compensate producers when yields increase."

As a result, several proposals have been made to convert the counter-cyclical payment program from one that triggers payments based on price to one that triggers payments

based on revenue. Following is a discussion of three counter-cyclical revenue proposals. These include proposals from USDA, the National Corn Growers Association (NCGA), and American Farmland Trust (AFT), which was developed by Carl Zulauf, an agricultural economist at Ohio State University.

**USDA Revenue-Based Counter-Cyclical Payment Program**

The proposed revenue-based counter-cyclical payment program from USDA works in the following manner. Payments would be triggered when actual national revenue per acre falls below the national target revenue per acre. The national target revenue is calculated by multiplying the national average yield of each program commodity for 2002-2006 (excluding the high and low years) by the effective target price for the commodity. The effective target price equals the CCP target price from the 2002 farm bill minus the direct payment rate. The actual national revenue per acre is calculated by multiplying the national average yield for the commodity times the higher of: (1) the season-average market price and (2) the loan rate for the commodity.

If the actual national revenue is below the national target revenue, according to the USDA proposal, "the national revenue-based payment per acre would be converted to a payment rate for producers by dividing the national revenue payment per acre by the U.S. average payment yield per base acre under the 2002 farm bill countercyclical payment program." The total payment to a producer would equal the national average payment rate for the commodity times the producer's base acres times the producer's 2002 CCP program payment yield times 85 percent.

According to the USDA proposal, "base acres and program payment yields would remain fixed over the life of the 2007 farm bill." In addition, "the national yield for determining target revenue would remain fixed over the life of the 2007 farm bill." Table 1 provides an example of how payments would be calculated in two scenarios for corn.

Table 1. Example Calculations of USDA Proposed Revenue-Based Counter-Cyclical Program for Corn

| | **Corn Scenario #1 Actual Price=$2.00/bu. Actual Yield=170.0/bu.** | **Corn Scenario #2 Actual Price=$2.30/bu. Actual Yield=130.0/ac.** |
|---|---|---|
| Target Price | $2.63/bu. | $2.63/bu. |
| Direct Payment | $0.28/bu. | $0.28/bu. |
| Effective Target Price | $2.35/bu. | $2.35/bu. |
| Olympic Avg Yield (2002-06) | 146.4 bu./ac. | 146.4 bu./ac. |
| Target Revenue (a) | $344.04 | $344.04 |
| Actual Revenue (b) | $340.00 | $299.00 |
| Payment Per Acre (a-b) | $4.04 | $45.04 |
| Program Yield (c) | 114.3 bu./ac. | 114.3 bu./ac. |
| Payment Rate Per Bushel (a-b / c) | $0.035 | $0.394 |

**National Corn Growers Association (NCGA) Revenue-Based Safety Net Proposal**

In October, 2006 the Public Policy Action Team of NCGA proposed a plan that would trigger payments based on declines in revenue instead of price. In addition to maintaining direct payments like the USDA proposal, the NCGA plan proposes two programs that are revenue-based. The first program guarantees farm level revenue and is referred to as Base Revenue Protection (BRP). The second program guarantees revenue at the county level and is referred to as the Revenue Counter Cyclical Program (RCCP).

Similar to Revenue Assurance (RA), BRP provides a guarantee of 70 percent of the five-year Olympic average crop net revenue for a farm. That revenue guarantee is calculated annually by multiplying the farm crop yield times the National Agricultural Statistics Service (NASS) price minus the Economic Research Service (ERS) estimated variable cost for the crop. Payments would be made if the farm revenue fell more than 30 percent below the Olympic average net revenue.

RCCP guarantees gross revenue at the county level, similar to the Group Risk Insurance Program (GRIP). With this program, the revenue guarantee is calculated by multiplying the effective target price from the CCP program in the 2002 farm bill times the calculated county-level trend yield. A payment is made when the average county yield times the average national price is below the revenue guarantee. However, the RCCP payment is limited to 30% of the revenue guarantee.

**American Farmland Trust (AFT) Integrated Farm Revenue Program**

The Integrated Farm Revenue Program (IFRP) is similar to the USDA proposal in that payments are triggered when national income falls below the predetermined target revenue. However, the mechanics of IFRP is different than the USDA proposal. For example, in the IFRP proposal, the target revenue is calculated by multiplying the expected U.S. yield per acre times the expected price of the crop. The realized or actual revenue is calculated by multiplying the actual U.S. average yield times the U.S. average harvest price of the crop. If the actual revenue is less than the target revenue, then a deficiency payment will be made to make up the difference. The payment for an individual farm would be based on the expected farm revenue (APH yield x Futures based harvest price) times the national percent revenue loss (revenue deficiency payment / national expected revenue). The IFRP payment would then be subtracted from any individual insurance payment made to a farmer.

**Summary**

All three of the revenue-based proposals are designed to achieve the same goal, but use different means to do so. Two of the proposals (USDA and AFT) trigger payments when national revenue falls below the target level. The other proposal (NCGA) triggers payments when county and individual farm revenue falls below the target level. Since the proposals use different methods to calculate the revenue target and payment when

revenue falls below that target, they will vary in how much money will be distributed through them and to whom it will be distributed. As with virtually any government program that intervenes in the marketplace, there will likely be unintended consequences. Inherent with these different designs are several possible economic and political difficulties. First, to the extent that a new proposed revenue safety net mimics an existing insurance product, it would effectively eliminate the market for the insurance policy, creating duplication between the USDA Farm Service Agency and the private, but publically subsidized insurance market. Second, the design of some programs could favor some commodities over others. Likewise, some regions of the county could benefit over others. Third, it is still questionable how much support these programs would offer verses current safety net programs. Therefore, it is important that these proposals are thoroughly evaluated before any are passed into law.

Additional information on the revenue proposals is available at:

American Farmland Trust Integrated Farm Revenue Program (www.farmland.org)

National Corn Growers Association Revenue Program (www.ncga.com)

USDA Counter-Cyclical Revenue Program (www.usda.gov)

# The 2007 Farm Bill: Green Programs and Conservation

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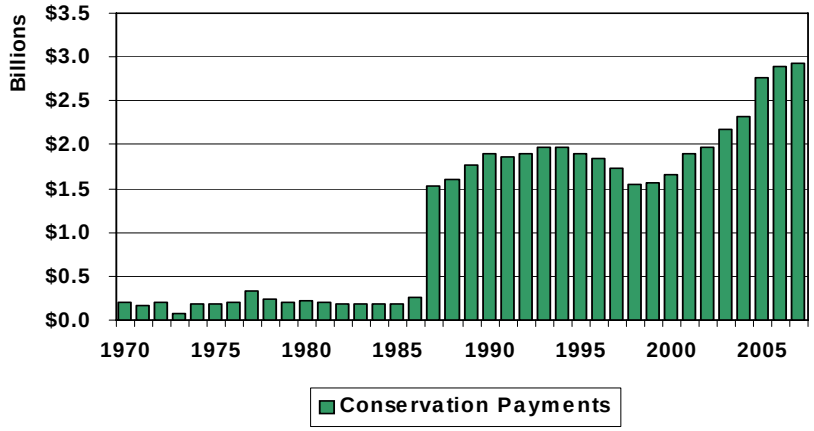
Green programs, or farm payments for non-commodity production reasons, has been an attractive goal to many groups for several years. Conservation groups have lobbied for some time for farm payments to be tied to conservation practices instead of production. In fact, there has been substantial growth in conservation spending for many programs over the past two decades (see Figure 1). Total conservation spending has grown from just a few hundred million dollars per year through the early 1980s to nearly $3 billion per year by 2006. While the support and scope of conservation programs has clearly grown, there is substantial interest in how much more conservation program might grow in the future. In analyzing conservation programs, it is convenient to focus on the categories of land retirement programs, working lands programs, and land preservation programs.

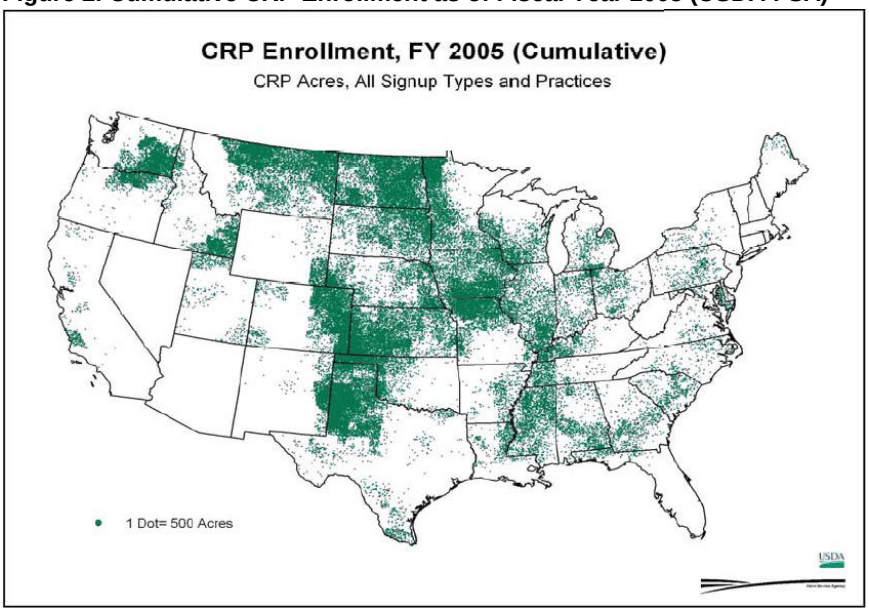
**Figure 1. Conservation Program Payments (USDA-ERS)**




## Land Retirement Programs

In the category of land retirement, the two biggest programs include the Conservation Reserve Program (CRP) and the Wetlands Reserve Program (WRP) that take land out of production temporarily or permanently. These programs, particularly the CRP, have been the major thrust of conservation program spending in the last 20 years. The CRP currently has 37 million acres (see Figure 2) enrolled with a cap of 39 million acres. These contracts earn annual payments of $1.8 billion, representing nearly two-thirds of all conservation payments in the United States.

**Figure 2. Cumulative CRP Enrollment as of Fiscal Year 2005 (USDA-FSA)**



There are several issues relative to the CRP, including future enrollment levels and priorities and the future of existing CRP acres nearing expiration. Historically, CRP acres have been concentrated in the Great Plains region from Texas to North Dakota (see Figure 2). Many of those acres originally entered the CRP in the late 1980s at a time when the CRP was focused on enrolling crop production acres and reducing the planted acreage as a tool of supply control. While many of the same acres were renewed in the late 1990s, they are now nearing expiration at a time when the future of the CRP is more uncertain. Recent CRP enrollments have focused more on continuous high-priority lands and conservation practices than the earlier general enrollments did. As such, acres expiring now and in the future may have a more difficult time being rebid into the CRP competitively against newer higher-priority acres across the United States.

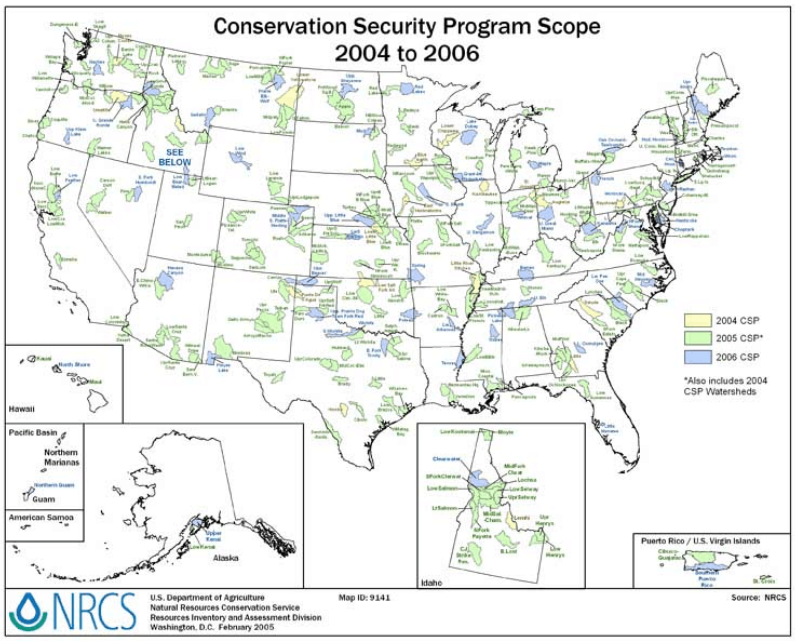
This question of acres nearing expiration became particularly relevant in the current farm bill debate because more than 28 million acres, or more than three-fourths of total CRP enrollments, are set to expire in the period 2007-2010. In light of this situation, USDA offered in 2006 a system of automatic renewals or extensions to CRP contract holders of land expiring in the near term. The proposed extensions/renewals would potentially smooth out the peak of expiring acres starting in 2007 to a more stable level over the next several years. The fate of those extension offers remains uncertain at present, in part because the final approval of new contracts is not yet complete, and in part because the changing economics of higher grain prices since the initial CRP extension announcement has potentially changed some of the plans.

Now, as opposed to the question of how many acres might be kept in the CRP, the question is how many acres might come out of the CRP, either at expiration or through the possibility of an early-out option to return to production. Certainly, the current crop economics would encourage some land to come out of the CRP and return to crop production, but some cursory USDA analysis suggest no more than a few million acres could economically return to cropland. The potential for an expanded CRP rests on the efforts to authorize several million acres in a biomass reserve to build up the production potential pending the possibility of wide-spread cellulosic ethanol production.

**Working Lands Programs**

In contrast to the CRP and WRP, the working lands programs provide conservation cost-share and incentive payments to producers for practices on land and operations that are in production. Payments through the Environmental Quality Incentives Program (EQIP) or the Conservation Security Program (CSP) help pay for conservation practices and provide incentives for environmental management. These programs represent the largest potential growth area in terms of funding.

**Figure 3. Conservation Security Program Watersheds (USDA-NRCS)**




The CSP was authorized in the 2002 Farm Bill and was advertised as a large program providing payments to producers for continued good conservation practices and additional payments for even better practices. However, the

CSP has only received limited funding thus far and has only been implemented in limited watersheds across the country. Barely 10 percent of the nation's watersheds have been eligible thus far through the first three years of the CSP and the watersheds announced for fiscal year 2007 may not actually be funded. Even in those eligible watersheds, the limited funding has constrained the number of applications accepted, leaving substantially more funding opportunities ahead.

The EQIP has seen significant funding and growth over the past several years, but it too has dealt with much more demand than actual funding. Table 1 highlights some of the EQIP funding and sign-up details in the United States, Kansas, and Nebraska.

**Table 1. EQIP Program Participation and Funding, 2002 - 2006**

| Year | United States | | | Kansas | | | Nebraska | | |
|---|---|---|---|---|---|---|---|---|---|
| | Applica-tions | Contracts | Funds ($ Million) | Applica-tions | Contracts | Funds ($ Million) | Applica-tions | Contracts | Funds ($ Million) |
| 2002 | 90,312 | 19,817 | $322.2 | 4,418 | 661 | $11.6 | 9,677 | 985 | $12.1 |
| 2003 | 204,313 | 30,251 | $483.5 | 8,440 | 731 | $14.6 | 10,056 | 974 | $13.4 |
| 2004 | 181,807 | 46,413 | $718.2 | 7,408 | 1,821 | $22.2 | 10,390 | 1,625 | $24.2 |
| 2005 | 82,114 | 49,406 | $794.3 | 2,564 | 2,022 | $24.8 | 3,918 | 1,751 | $27.0 |
| 2006 | 73,823 | 41,190 | $788.0 | 2,733 | 1,666 | $23.8 | 3,443 | 1,528 | $25.6 |

Whether in Kansas, Nebraska, or the United States, the demand for assistance under the EQIP program has far exceeded available funding. While total funding nationwide had grown to nearly $800 million annually by 2005 and 2006, more than 40 percent of all applications were not funded. The pent-up demand in Kansas and Nebraska was even more significant with substantially more than half of all applications unfunded.

### Land Preservation Programs

The third major category of conservation spending is land preservation programs. These include the Farm and Ranch Land Preservation Program (FRPP) and the Grasslands Reserve Program (GRP) among others. Payments under these programs often take the form of easements that preserve the land in agricultural use and prevent it from being converted to other uses. These programs tend to be more popular and more utilized in those regions facing greater potential of non-farm development, such as in rapidly developing rural areas on the fringe of metropolitan regions.

### Conclusion

Summing up a big option, green programs, whether in conservation or in energy, will certainly be a big part of the discussion on the new farm bill. Conservation programs are championed by some as the preferred alternative method of making payments to producers and could draw some spending away from existing commodity programs.

**2007 Farm Bill: Energy Components**
**Restructuring Agriculture with Biofuels?**

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## INTRODUCTION

The 2007 Farm Bill may well be a legislative landmark for the future of biofuels and alternative energy in the United States. While the 2002 Farm Bill was the first to include an energy title, the 2007 version of this premier farm legislation may be the farm bill that people point to when they describe how alternative fuels became a central theme for U.S. ag policy. While the farm bill may not wear the moniker of "Renewable Fuels for a Robust America," it looks as if that title may be claim of many.

Examining the prominence of renewable energy based programs in the current farm bill proposals and the type of policy alternatives being put forward will provide a venue to build an outlook for the future of agriculturally-based biofuels.

## BACKGROUND

Energy is a topic that has been on the minds of many agricultural producers, lawmakers, administrators, and agribusiness people – not to mention virtually every national newscast. While the prices at the fuel pumps of America have captured widespread attention, farmers and ranchers have looked at increased production costs. Dramatic price increases in energy-intensive inputs for the early part of this decade have been the norm. While many lament those costs, some revel in the opportunities.

Ethanol production in the U.S. has increased dramatically since the early 1990's. (See **Figure 1. U.S. Ethanol Production 1990-2006.**) By the end of 2009, projections are for the total capacity of U.S. ethanol production to be in excess of 11 billion gallons. When the expansion of current ethanol biorefineries and construction of additional facilities underway are finished we will have 11.8 billion gallons of capacity.

The current requirements for the utilization of alternative biofuels are well below existing levels of production. While the requirements increase through 2012, the expected capacity of the ethanol industry alone is expected to exceed the 2012 level by more than a billion gallons in the year 2008.

Biofuels have definitely impacted our economy. The magnitude of demand for ethanol feedstocks is one of the primary drivers to be considered in farm income forecasts. The climb in prices for grains and soybeans during the latter portion of 2006 and into the beginning of 2007 is a major agricultural story. We are facing a time when prices are supported more by the demand for products than a shortfall in production.

> "In 2006 and 2007 as well, we are seeing a Perfect Storm for Bio-Fuels."
> --Brent Erickson,
> Executive Vice President of BIO's Industrial & Environmental Section

Cellulosic materials – primarily using fibrous materials such as stover, straw, or woody material – are the focus of several key legislative proposals. The Energy Policy Act of 2005 (EPACT 2005) established a 250 million gallon requirement for renewable fuels produced from cellulosic materials to be reached by 2012. Currently, there is no commercial production of cellulosic biofuels in the U.S.[1] The technology is available, but not a commercially viable level.

The Broin Companies announced their decision to build the first cellulosic ethanol biorefinery in the U.S. This will involve the conversion of an existing corn-based ethanol plant to a cellulosic biorefinery that will utilize corn fiber and stover. Although it was a large announcement indicating the beginning of the process, it could still take a great deal of investment in time and money to initiate the commercial production of cellulosic ethanol. Greater risk may be involved in the implementation of an unproven commercial undertaking; great rewards may also be found by those who are able to perfect and market the technologies early.

**THE "FEEL GOOD" PRINCIPLE**

There are several arguments for targeted increases in biofuels production. One of the arguments with broad appeal is the potential to reduce our use of fossil fuels. Environmental groups sometimes tout the alternative fuel as a friendly measure to replace oil-based petroleum fuels. This proposition quickly turns to gaining independence from foreign oil supplies thus fostering "energy security." The prospects of "energy security" tie well with the guttural reactions to wars in the Middle East.

A principle contained in the USDA's farm bill proposal is that of "reinvigorating rural America." Biorefineries allows for greater opportunities for rural producers to invest in further value-added processes utilizing their products. This not only applies to financial investment portfolios, but also can benefit rural areas in other ways. Biorefineries located near agricultural production centers can result in job and wealth creation in rural areas.

The additional demand for feedstocks by biorefineries has shown up as a major price mover in grain and oilseed markets. Not only has the price of corn and soybeans increased from the latter end of 2006, but other crops that are substitutes in the livestock feed and biofuels feedstock markets have seen price increases. This in turn has reduced the expected level of direct government payments as markets have rewarded those with excess crops to sell.

**The Proposals**

The highlighted farm bill proposal now is that recently released by the USDA. This proposal links to energy in several specific titles. Namely: Conservation, Rural Development, Research, Forestry, and Energy. The primary emphasis is on the use of cellulosic feedstock for producing biofuels. While the amount of ethanol and other biofuels produced from traditional agricultural products such as grains and oilseeds may be limited in their scope to meet the energy needs, the use of cellulosic technologies may expand our alternative fuel capacity greatly.

The USDA proposal recognizes that the risks involved in commercializing cellulosic biofuels technologies may require favorable policies, shared research funding, and investment incentives to bring the new technologies to the public. Several of the policies in the proposed 2007 Farm Bill address these issues. Specifically:

[1] Renewable Fuels Association. http://www.ethanolrfa.org

Conservation Reserve Program: Priority would be given within whole-field enrollments for land used to produce biomass for energy purposes.

Loans and Grants: There is a proposed restructuring among federal agencies including the USDA Rural Development renewable energy grant and research program under the authority of the Biomass Research and Development Act of 2000 (BRDA2000). Over ten years this would include mandatory funding of $500 million for Renewable Energy Systems and Energy Efficiency Improvements Grants; and $150 million for the competitive grant program under the BRDA200.

The construction of biorefinery projects would also be prioritized for loan and loan guarantee programs. Loan guarantee limits would be expanded to $100 million for cellulosic ethanol projects with certain other changes made to enhance the opportunity to obtain guaranteed loans. This includes making an investment of $210 million to support $2.17 billion in guaranteed loans for the construction of cellulosic ethanol plants.

Research: $50 million annually over 10 years for a proposed Agricultural Bio-Energy and Bio-Based Products Research Initiative; Wood-to-Energy program to invest $150 million over 10 years to research conversion of low-value woody mass into biofuels.

Feedstock Source Investment: A direct investment of $25 million annually from 2009 to 2012 for sourcing biomass feedstock for increased cellulosic ethanol production.

Several other suggestions for restructuring existing programs to increase the use of bio-based products with more modest funding proposals are also included in the USDA proposal.

**AGRICULTURE AS THE WHOLE**

Whatever happens with bioenergy will surely impact all of agriculture. Livestock feed prices are directly impacted by what happens with the grains markets and we have seen how the demand for feedstocks for biorefineries moves those markets. While expansion of cellulosic ethanol production may take some future market share from grain-based biorefineries, the existing investment in those plants will certainly maintain a support for grain prices in the near future.

The National Cattlemen's Beef Association (NCBA) raised their concerns regarding skyrocketing grain prices and the impact on cattle feeders and producers due to grain-based ethanol production. In the February 2007 NCBA resolutions process, there was support voiced for the future of the domestic bioenergy industry, but in an area that is not focused solely on biorefineries using feed grains. NCBA is seeking for a sunset of the current ethanol blending tax credits and the tariffs on imported ethanol. The organization is also calling for greater emphasis on cellulosic technologies that are less likely to spur on higher grain prices. Other livestock organizations are also considering similar language and concepts in upcoming meetings of their policy development groups.

Grain merchandisers, livestock feeders, ranchers, and agribusiness people along with crop producers will be looking to the energy policies of the future for their impact on agriculture. Marketing strategies and sourcing of inputs will be honed in the future based on the policies that

are implemented. Additional research in the utilization of co-products from biorefineries and the applications for livestock and other sectors will be necessary.

**RELATED LEGISLATIVE AREAS**

The 2007 Farm Bill and the House and Senate Agriculture Committees will not be the only legislative centers that impact agriculture's energy future. The Energy Policy Act of 2005 (EPACT 2005) set the level of renewable fuels mandated at the current time. (See **Figure 2. U.S. Renewable Fuels Requirements.**) Any general energy aspect that is desired by agriculture for utilization of biofuels will need to be examined by the House Committee on Energy and Commerce and the U.S. Senate Committee on Energy and Natural Resources. Likewise, federal tax incentives will need to gain traction in the House Committee on Ways and Means – not to mention the entire U.S. Congress and the President.

Some notable policy venues outside the 2007 Farm Bill regarding the future of biofuels are:

President Bush, State of the Union 2007: Reducing gasoline usage by 20% in ten years; this will be accomplished in part by increasing the mandate for alternative and renewable fuels to 35 billion gallons by 2017. Importing a portion of the alternative fuels is considered in this plan. "Safety valves" for prices of alternative fuels or their inputs would be included. The proposal includes aspects for improved crop yields and alternative technologies, such as cellulosic materials conversion.

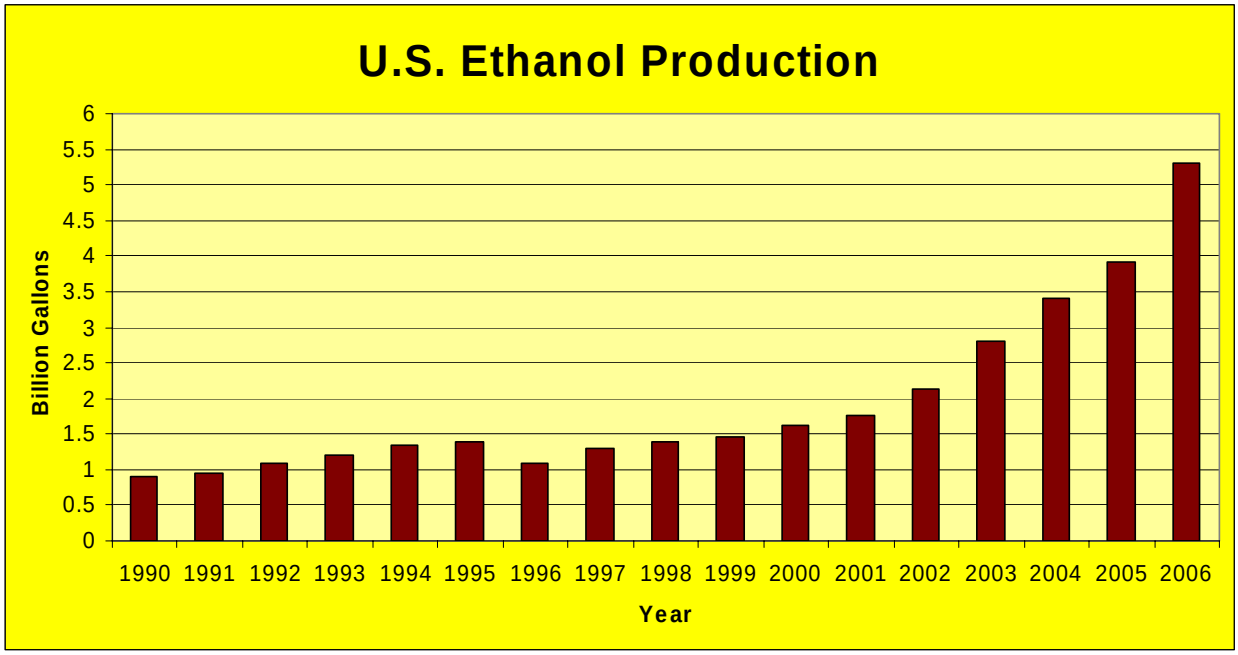
Senators Harkin, Obama, Lugar, Dorgan, and Biden: 60 billion gallons of ethanol and biodiesel blended in motor vehicle fuel annually by 2030. Various tax credits and mandates on the blending of biofuels and distribution are included in this broad based set of policies.

Senators Grassley and Salazar: "25 x 25" This is a Senate resolution to establish the goal of 25% of the U.S. total energy consumption in the year 2025 coming from American farms, ranches, and forests. This proposal does not spell out specific changes to meet the goal, only emphasizes that this should be accomplished.

**SUMMARY POINTS**

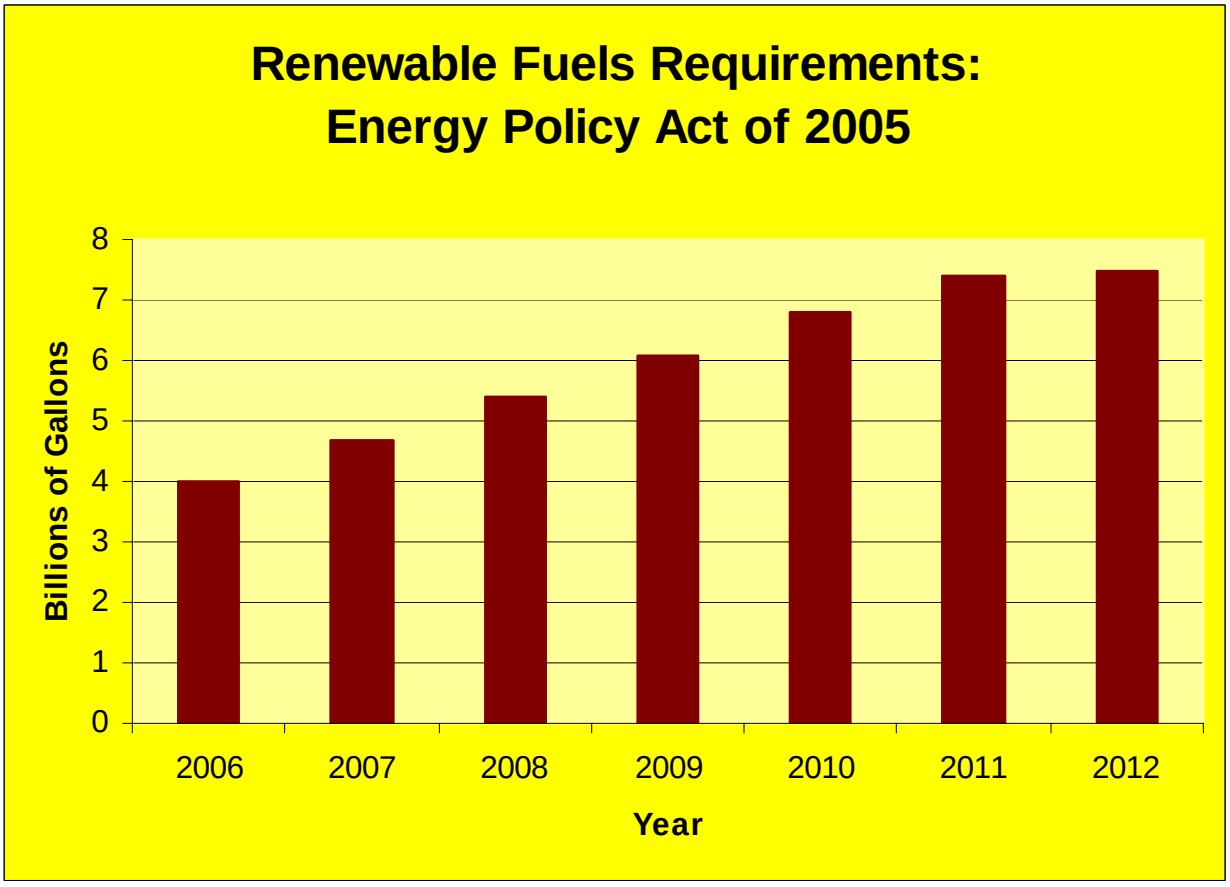
- Energy components of the next farm bill will impact agriculture as a whole, not only crop producers.
- The current market-driven production of biofuels, with existing incentives, is running steadily above legislated mandates.
- The 2007 Farm Bill will likely focus on cellulosic materials for the broadest portion of investment and incentives.
- Funding for research and development is expected to continue for alternative fuels; particularly for alternatives such as cellulosic ethanol.
- The USDA 2007 Farm Bill proposal includes $1.6 billion in new funding for renewable energy research, development and production.
- Such diverse areas as the Conservation Reserve Program will likely be impacted by biofuels as alternatives for domestic energy production and use are considered.
- Any legislative proposal for biofuels that is not solely under the purview of the respective House and Senate committees dealing with agriculture will require other committees to be involved. This includes any requirement for biofuels use or tax incentives.

**Figure 1. U.S. Ethanol Production 1990-2006**




Source: Renewable Fuels Association & K-State Research & Extension

**Figure 2. U.S. Renewable Fuels Requirements**




Source: Energy Policy Act of 2005 & K-State Research & Extension