2012 Farm Bill Debate

Crop Insurance Takes Center Stage

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Agricultural and food policy has undergone intense scrutiny during 2012 as Congress has tried to pass a new Farm Bill to replace the now-expired 2008 Farm Bill. Under extreme pressure to reduce Federal spending to trim a Federal budget deficit exceeding $1 trillion per year, the new Farm Bill must pare future spending on farm and food programs. Pending legislation in the Senate and the House of Representatives achieve funding reductions by reducing spending on farm and conservation programs, food assistance and other programs, while increasing funding for crop insurance. These changes are consistent with choices expressed by major farm and commodity groups to cut less important farm programs and use the savings to meet required budget cuts and to maintain and strengthen risk management programs.

This article discusses the current state of Farm Bill development, the influence of the Federal budget problems, and the major provisions affecting crop insurance in the pending Farm Bills passed by Senate and House Agriculture Committee. The article concludes with some results from recent research conducted at NCIS to assess how farmers may value the various new programs in the context of their crop insurance coverage choices.

2008 Farm Bill Expires

Most agricultural policy is authorized by a Farm Bill, which is legislation that amends prior legislation and creates new programs. The amendments and new programs usually are authorized for a limited period of time, usually five years, and provide mandatory funding for mandatory programs and authorizations for appropriations for discretionary programs. Farm bills also suspend provisions of various permanent laws. For example, the Farm Security and Rural Investment Act of 2002 (the 2002 Farm Bill), like prior Farm Bills, suspended permanent law commodity program provisions of the Agricultural Adjustment Act of 1938 (1938 Act) and the Agricultural Act of 1949 (1949 Act), permanent laws which contain the major commodity program provisions. The 2002 Farm Bill also made changes to crop insurance, amending provisions of the Federal Crop Insurance Act, also permanent law.

Many of the provisions of the 2002 Farm Bill expired on September 30, 2012. Thus, for some programs, authorizations and funding ended with the 2012 fiscal year. The dairy income support program is an example. Without new legislation, programs for major crops will revert to the provisions of the 1938 and 1949 Acts for the 2013 crop years. As an example, these laws would mean reverting to acreage allotments for wheat and upland cotton and price support levels as a percent of parity prices for major crops, milk and honey. For corn, the support price would be set by the Secretary of Agriculture at 50 to 90 percent of parity. Based on the September 2012 parity price for corn of $12.10 a bushel, the minimum corn price would be $6.05 a bushel. Similarly, the minimum price for wheat would be $13.88 a bushel, and milk price support would rise to $39.38 per cwt on January 1, 2013, more than double the current milk price. These provisions would cause great disruption in markets and serve as a powerful incentive for Congress to enact a new Farm Bill or extend the 2008 Farm Bill.

As Farm Bills have become more comprehensive, costlier and complicated, passage has taken longer. Table 1 shows the number of months before or after expiration that a new Farm Bill has been enacted. While some programs ended on September 30, 2012, others continue to operate such as the 2012 commodity programs and crop insurance, with its permanent authorization. In addition, discretionary programs whose authorizations expired could still be funded by appropriation bills. These cases reduce the impact of failing to enact new legislation before expiration of the old and provide a small degree of breathing room for Congress this fall.

Table 1. **Timimg of Past Farm Bills**

Farm Bill	Expiration Date Date	New Bill Enacted	# Months After Expiration
1973	9/30/1977	9/29/1977	0
1977	9/30/1981	12/22/1981	3
1981	9/30/1985	12/30/1985	3
1985	9/30/1990	11/28/1990	2
1990	9/30/1995 (milk thru 1996)	4/4/1996	6
1996	9/30/2002	5/1/2002	-4
2002*	9/30/2007	5/22/2008	8
2008	9/30/2012	??	

*The 2002 Act was extented 6 times; the first extension was on 12/26/2007

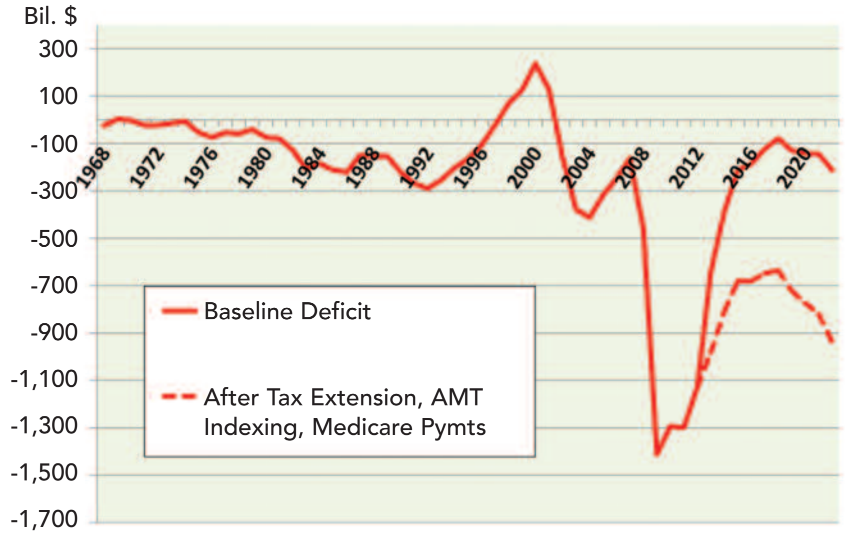
Budget Problems Shape New Policy

Farm Bill provisions are determined by many interacting economic, policy and political forces. The national and farm economic situation plays a prominent role. In the 1996 Farm Bill debate, there was concern over economic distortions caused by acreage control programs and income support tied to market prices. As a result, the 1996 Farm Bill eliminated annual acreage control programs and introduced direct payments to remove the price distortions. Direct payments were also popular because markets were tightening and it was believed that strong prices in the future would cause price-based payments to shrink. Direct payments "locked" in the support payments so they would not disappear if the higher prices materialized.

By the time the next Farm Bill rolled around, commodity markets were weaker and the 2002 Farm Bill dealt with farm economic concerns by creating countercyclical payments, adding new funding to farm programs. The farm economy was strong in 2008, the Federal budget deficit, while growing, had yet to hemorrhage, and it was also a presidential election year, so farm programs were little changed in the 2008 Farm Bill, and creative ways were found to fund some expansions. For example, funding was permitted to come from tax provisions provided by Committees with revenue jurisdiction and spending on some programs was pushed into future years not considered in the budgeting process, while revenue was moved forward into years that are considered. These timing shifts were used to achieve savings in crop insurance by advancing premium collections and delaying payments to insurance companies.

In 2012, the overarching issue framing the Farm Bill discussion has been the Federal budget debt and deficit. Funding

Figure 1. **Federal Budget Deficit**



Source: CBO August 2012, with adjustments

available for the new Farm Bill depends on its "baseline" funding (which is projected spending over 2013-2022 under current programs) and any cuts or increases to the baseline determined by budget resolutions or other agreements among legislators. There also are statutory "pay go" provisions to ensure deficit neutrality that prevent increased funding without appropriate offsets. With the Federal budget deficit exceeding $1 trillion annually since 2009, the Federal debt has grown sharply (Figure 1). Alarmed by the rising debt, numerous organizations, Congress and others began proposing alternative ways to reduce the deficit, and pressure has mounted on Congress to act.

The Budget Control Act of 2011 (BCA) became law in August 2011. It was an agreement that reduced Federal spending while lifting the statutory debt limit of $14.294 trillion, which was soon breached. The BCA raised the limit to $16.394 trillion, which is expected to be reached in early 2013. The BCA also created a process to have a so-called "super committee" find budget cuts totaling $1.5 trillion over 10 years, and if the cuts were not enacted, an automatic cut, or sequestration, of $1.2 trillion would be implemented in January 2013. The leaders of the House and Senate Agriculture Committees submitted a set of proposals to the super committee to reduce agriculture spending by $23 billion over 10 years. The proposals would have eliminated direct payments, created new supplemental support programs and expanded crop insurance.

Others called for steeper cuts, including crop insurance reductions. For example, the administration proposed $33 billion in cuts, including elimination of direct payments and $8.3 billion in crop insurance reductions to be achieved by lowering crop insurance companies' rate of return, capping administrative expenses at $0.9 billion adjusted for inflation, setting the premium for catastrophic coverage policies more accurately, and reducing premium subsidy levels by two basis points for subsidy rates above 50 percent. The super committee failed to act and sequestration provisions go into effect in January 2013. However, the proposal made by the Congressional agricultural leadership to the super committee became a starting point for the farm bills developed in 2012 in the House and Senate.

Since the failure of the super committee, the budget problem and its implications for agriculture have continued to magnify. The sequestration makes only a first step in deficit reduction, yet many people want to blunt the sequestration cuts or shift them from defense to other programs. Sequestration will reduce many agricultural programs (but only have a minor impact on crop insurance). Potentially, a new Farm Bill could enact reductions that substitute for sequestration cuts in agriculture. In another development, the House Budget Resolution, adopted in April 2012, called for $33.2 billion in cuts to agricultural programs and that is the level of reductions the House Agriculture Committee used in developing its Farm Bill. Various tax provisions expire in January 2013, and while that would help reduce the deficit, most members of Congress want to avoid hefty tax increases for their constituents, thus escalating the pressure to cut spending even more.

Lacking a budget resolution, the Senate passed its Farm Bill, the Agriculture Reform, Food, and Jobs Act (S. 3240), on June 21, 2012. It was estimated by CBO to reduce baseline spending by $23 billion over 10 years. The Senate awaits a House bill that would then be reconciled with the Senate Farm Bill to produce final legislation for consideration by the House and Senate. The House Agriculture Committee passed the Federal Agriculture and Risk Management Act (H.R. 6083) on July 11, 2012, but no further action as transpired. The House bill reduces agriculture spending by $33 billion over 10 years.

Pending Bills

Commodity Program Changes Will Affect Crop Insurance

The Senate and House Committee Farm Bills each make significant changes in Title I, the commodity program title. The major implications for crop insurance are that both bills eliminate direct payments, counter cyclical payments, and the Average Crop Revenue Election (ACRE) program, continue loan programs, and create new supplemental revenue programs that can affect the choices producers make in their crop insurance coverage. The Senate bill replaces the eliminated programs with the revenue-based Agriculture Risk Coverage (ARC) program. A farmer considering ARC has to make a one-time decision for the life of the

Farm Bill (2013 to 2017) on whether to have county-level protection (subject to data availability) or individual farm protection for all acres. ARC complements crop insurance by providing multi-year price protection. ARC's benchmark revenue is calculated using the product of Olympic averages of yields and prices (which exclude the lowest and highest observations), reducing the effects of sharp drops in prices which are reflected only over time. ARC covers the losses between 11 and 21 percent of the benchmark revenue. Payments are made on 80 percent of planted and 45 percent of prevented planted acres under the area coverage option and on 65 percent of planted and 45 percent of prevented planted acres for individual coverage.

Similar to the Senate, the House Committee bill offers producers a one-time election to choose either Revenue Loss Coverage (RLC) or Price Loss Coverage (PLC) on a farm on a crop-by-crop basis. Both RLC and PLC are available and free for producers of program commodities. RLC is a county-based program only and covers 75 to 85 percent of benchmark revenue, which is based on an Olympic average of county yields and the higher of a fixed reference price or the five year Olympic average of farm prices. PLC also provides multi-year price protection, making a payment when the five month farm price is below a reference price. PLC payments are based on payment yields that may be updated by the producer. Both RLC and PLC pay on 85 percent of planted acres and 30 percent of prevented planted acres.

Because there is some overlap in coverage of ARC and PLC with crop insurance and these programs are free, they may induce some farmers to substitute the programs for crop insurance at the higher coverage levels. This is more likely with the individual coverage option under ARC. These programs, as well as the new crop insurance area-based programs, will likely cut deeply into existing county-based area crop insurance programs (GRP and GRIP). On the other hand, crop insurance indemnities are not subtracted from ARC and RLC payments, lowering the incentive to decrease crop insurance coverage levels. There are also payment limits with Title I programs, a one-time sign up for a long-term commitment, no harvest price option, a proration factor on payment acres, delayed payments under RLC and PLC and the general inability of area plans to cover yield risks as well as individual plans—all of which reduce the incentive to substitute the new Title I programs for crop insurance coverage.

Key Aspects of the House and Senate Farm Bills for Crop Insurance

Crop insurance is Title XI in each bill, and those titles bear many similarities. The House bill has 25 sections in its crop insurance title while the Senate has 32 sections. There are provisions in other titles that affect crop insurance, such as conservation compliance for receipt of crop insurance premium discounts, which is in the conservation title in the Senate bill. There also are provisions in the crop

Table 2. **Senate Passed and House Committee Passed Crop Insurance Provisions**

PROVISION	BRIEF DESCRIPTION
	NEW PROGRAMS
Supplemental Coverage Option (SCO)	Creates an area-wide policy that pays an indemnity based on the deductible in an underlying MPCI policy when the area losses exceed 10% of normal. If the farmer participates in ARC, the 10% loss trigger is 21% (Senate). Acres covered by Revenue Loss Coverage (RLC) are not eligible (House). SCO is to be available for all crops, if sufficient data are available. STAX participants are excluded. Premiums are subsidized at 70%. A&O is 12%
Stacked Income Protection Plan (STAX)	Beginning with the 2013 crop, provides upland cotton with STAX, a revenue-based, area-wide policy (county or larger area) that may be purchased stand-alone or in addition to another individual or area policy. Provides coverage of not more than 30% of expected area revenue (or not more than the deductible in the underlying policy) and only pays on losses greater than 10% of expected revenue. Has a protection factor not to exceed 120%. Uses higher of insurance yields or 5-yr OA of RMA or NASS yields. Premium subsidy is 80%. Indemnities for STAX and other individual policies cannot overlap. Users of STAX cannot have SCO. (House sets a minimum benchmark price of $0.6861 per lb. to be used to set the benchmark revenue and FCIC reinsures 100% of the liability associated with this provision.)
Peanuts	Requires a revenue insurance program for peanuts. Effective price to be used is the Rotterdam price adjusted to US basis. RMA may adjust the price and, if so, report to Congress on the adjustment.
Whole Farm Insurance	Requires FCIC to develop a whole farm plan with liability limit of $1.5 mil. for diversified crop/livestock farms that pays when gross revenue is less than 85% of average or expected gross revenue. May allow diversification-based rates. May cover value of packing, packaging and other on-farm activity. (House limits liability to $1 mil.)
Food Safety Insurance	FCIC shall contract a study to determine if insurance for specialty crops for food safety and contamination would benefit producers; report to Congress within one year after enactment. (No House provision.)
Swine Insurance	Requires FCIC to study feasibility of insuring swine producers for a catastrophic event; report to Congress within one year.
Catfish Insurance	Requires FCIC to contract for R&D for margin insurance for catfish.
Poultry Insurance	FCIC shall contract to study the feasibility of insuring poultry production against disruptions caused by integrator bankruptcy and insuring producers against catastrophic events; report to Congress within 1 year. (No House provision.)
	PROGRAM CHANGES
AGI Limitation on Premium Subsidy	Beginning with the 2014 reinsurance year, premium subsidies are reduced by 15 percentage points (ppts) for producers with average AGI greater than $750,000 (based on FSA data). Goes into effect only after USDA determines that the provision would not significantly raise premiums for producers at lower income levels, reduce crop insurance coverage "available to producers", or increase total cost of the program. Study in consultation with GAO on impacts is required within one year. (No House provision.)
Conservation Compliance	Requires that a producer be in compliance with highly erodible land conservation requirements (within five years) and wetland requirements in order to receive crop insurance premium subsidies. (No House provision.)
Weather Index Pilot	FCIC may conduct a pilot to provide financial assistance to underserved crops and livestock to buy index weather insurance from a private company. FCIC may pay up to 60% of the premium for a crop and policy not reinsured by FCIC. Company must have experience and resources. FCIC must establish and publish procedures that set reporting requirements, allow exclusive rights on the product and its rating. FCIC must ensure producers are protected and rating is actuarially sound. Provides $10 mil. per year for 2013-2017. (No House provision.)
Organic Crop Insurance	Requires FCIC to offer organic crop producers price elections that reflect actual wholesale or retail prices received by producers; report annually on progress made. (No House provision.)
Enterprise and Whole Farm Unit Subsidy	Makes permanent the enterprise unit and whole farm subsidy pilot program.
Enterprise Units by Practice	Makes available separate EUs for irrigated and nonirrigated acres.

PROVISION	BRIEF DESCRIPTION
Coverage Levels by Practice	Beginning with the 2014 crop year, a producer who grows a crop on both dry land and irrigated land may elect a different coverage level for each production practice. (No Senate provision.)
APH Adjustment (Yield Plug)	The yield plug is 70% of the applicable transitional yield for the 2013 or any subsequent crop year (Senate) or 70% for all crop years (House)
Repeal of Performance-Based Discount	Repeals performance-based discount. (No Senate provision.)
Limitation on Livestock Expenditures	Increases funding for livestock pilot programs to $50 mil./year. (No Senate provision.)
CAT Premium Reduction	Reduces the imputed CAT premium by the percentage difference between the average loss ratio for the crop and 100%, plus a reasonable reserve.
Beginning Farmers	Defined as farmers not operating for more than five years. Provides premium support for beginning farmers and ranchers that is 10 ppts greater than otherwise provided and an APH using the previous owner's or one with yield plugs of 80% of t-yields.
Native Sod	For planting on native sod (land never tilled) during the first four years, anywhere in the U.S., premium subsidies are 50 ppts less than otherwise and APH yields are 65% of t-yields. No benefits are available under NAP or commodity programs. Within 180 days a report is required on the change in cropland in each county and state, with annual updates. (House bill applies to Prairie Pothole Priority Area.)
AMA, Risk Management and Organic Cost Share	Authorizes and combines programs for organic certification cost-share assistance (50% of funding), activities to support risk management education and outreach (26%), and agricultural management assistance grants to producers in states with low crop insurance participation for conservation uses (24%). Payments are limited to $50,000 per person per year. Funded at $23 mil./year in CCC funding for 2013-17. (House provides $10 mil./year, to NRCS for conservation (30%), to AMS for organic certification (10%), and to RMA for risk management (60%).)
	RESEARCH & DEVELOPMENT AND PRODUCT APPROVAL CHANGES
RMA Research & Development	Permits RMA to conduct R&D for new policies and to maintain or improve existing policies. Places priority on policies that increase participation by producers of underserved agricultural commodities, including sweet sorghum, sorghum for biomass, specialty crops, sugarcane, and dedicated energy crops. (House does not authorize RMA research and adds priority areas of rice, peanuts and sugarcane.)
Board Review of Research and Pilots	FCIC must review any policy developed under section 522(c) or any pilot program developed under section 523 (RMA research products) and submit the policy or program to the Board if it finds that the policy or program will likely result in a viable and marketable policy and would provide coverage in a significantly improved form.
Board Review Standards and Priorities	Sets out the standards that 508(h) products must meet for approval; FCIC may annually establish priorities that specify types of submissions needed and make the priorities available on the FCIC website; directs FCIC to "consider providing" the highest priorities for policies or plans of insurance that address underserved commodities, including commodities for which there is no insurance or inadequate coverage or low participation. (No House provision.)
Board Approval for R&D Costs	FCIC Board may approve 50% of R&D costs for 508(h) products to be paid in advance to submitters. The Board may approve another 25% after R&D has begun if for underserved areas or crops, progress is satisfactory, and the submitter does not have sufficient resources. (No House provision.)
Submission and Board Review of Policies	Specifies that priority shall be given to making a peanut revenue policy and for downed rice and margin coverage available. Authorizes a 508(h) submission that would allow producers to separate enterprise units by risk ratings and acreage in counties. (No Senate provision.)
Pilot Programs	Makes pilots "the sole discretion of FCIC"; eliminates the requirement to evaluate pilot programs and report to Congress.
Consultation	508(h) submissions must include consultations with producers served or affected by the product and analysis from the impacted groups and assessments of the effect on marketing and production. Board must review info and determine if there are adverse market distortions. (No House provision.)

PROVISION	BRIEF DESCRIPTION
Benchmarking	Allows RMA to enter into partnerships to provide producers with financial benchmarking education and information. (No House provision, although the House has financial benchmarking as area eligible for funding under the Beginning Farmers and Rancher Development Program.)
	ADMINISTRATIVE & IMPLEMENTATION PROCESS CHANGES
Information Sharing	If authorized by a producer, FSA shall provide an insurance agent or AIP any info or maps that may assist them in insuring the producer. (No Senate provision.)
Publication of Violations	FCIC is required to publish in detail without disclosing identities, any violations of provisions on "adjustments to premiums" (rebates, discounts, credits, etc.). (No Senate provision.)
Sources of Yield Data	For yields for area plans, FCIC is to use county data collected by RMA or NASS, or both; or if sufficient county data is not available, FCIC may use other data considered appropriate.
Error Correction	Allows agents and companies to correct eligibility information provided by the producer in a reasonable period of time.
Implementation	Requires information systems to be maintained and upgraded; must be compatible with other agencies; must develop an acreage reporting and streamlining initiative so producers may report directly to the Dept.; must report to Congress on status of the initiative by July 1, 2013. (One year later in House.) Provides funding from Sec. 516(c) for $25 mil. for 2013 and $10 mil. for subsequent years ($15 mil. if ACRSI is substantially done by 9/30/2013).
Greater Accessibility	Requires plain language, to extent practicable, in regulations and guidance from RMA. Requires a report within 180 days on RMA compliance with Executive Order 12866 on regulatory planning and review. RMA website is to be improved in consultation with approved insurance providers to include FAQs and information on plans and policies. RMA not authorized to sell crop insurance. (No House provision.)
GAO Fraud Report	Requires the Comptroller of the Currency to study and report to Congress ASAP on "fraudulent claims filed and benefits provided." (No House provision.)
	STANDARD REINSURANCE AGREEMENT PROVISIONS
SRA Negotiations	FCIC Board shall ensure, to the maximum extent practical, negotiations shall be "budget neutral" and may not significantly depart from neutrality. Any savings realized that are not a significant departure from neutrality shall be used for programs administered by RMA.
Equitable Relief for Specialty Crop Producers	Directs FCIC to make an additional annual A&O payment of $41 mil. (for reinsurance years 2011 through 2015) to AIPs selling polices for crops not eligible for benefit under Title I (i.e., specialty crops). Specifically says this provision is not "statutory assent" to compensation limits. (No Senate provision.)

insurance titles that do not affect crop insurance, such as House provisions affecting disaster payment eligibility and the Noninsured Crop Disaster Program. Table 2 provides a general summary by topic of the provisions in the House and Senate bills. Any differences between the bills are noted in the descriptions of each provision. If no difference are noted, the provisions in the two bills are identical or nearly the same. Major provisions are identified next.

New Products: Both bills introduce crop insurance supplemental revenue programs, the Supplemental Coverage Option (SCO) for all crops and the Stacked Income Protection (STAX) program specifically for upland cotton producers. But, a cotton producer opting for STAX cannot use SCO. Both STAX and SCO are area-based insurance plans, delivered by crop insurance companies, and cover the deductible portion of the crop insurance coverage. STAX can be bought as a standalone policy, the protection cannot be greater than 30 percent of the expected county revenue and the deductible cannot be less than 10 percent, that is, STAX covers at most 70 to 90 percent of expected county revenue. Under the House Committee bill, the insurance price used to calculate expected county revenue cannot be less than a reference price of 68.61 cents per lb. Underlying crop insurance coverage and STAX cannot overlap. SCO's coverage depends on the underlying crop insurance plan type and coverage and whether the producer participates in Title I supplemental revenue programs. Farmers must pay premiums for SCO and STAX, but premiums are highly subsidized (70 percent for SCO and 80 percent for STAX), with farmers paying the remaining portion of the premium.

Regarding the interaction with crop insurance, Figures 2 and 3 illustrate some examples of how a producer may choose to integrate coverage of crop insurance (in this case 75 percent Revenue Protection (RP) or Catastrophic coverage (CAT)) with SCO area coverage, the Title I program of ARC individual coverage and STAX area coverage.

STAX may cause some buy down to lower coverage levels, but cotton producers already buy less at high coverage levels compared with the producers of other crops. SCO may also cause some buy down of crop insurance coverage, but the SCO and STAX effects may be lessened by the fact that area plans are only a limited substitute for individual risk protection for a farm, because—like the ARC county plan and RLC—SCO and STAX suffer from the yield basis risk common to area plans. Under the Senate bill, if a producer participates in ARC, a 21 percent deductible applies on any SCO plan purchased. In addition, SCO and STAX are not subject to payment limits. For these reasons, even though ARC is free, some farmers may skip ARC altogether and simply supplement crop insurance with SCO. If the producer opts out of ARC, but purchases SCO, the producer will have a 10 percent deductible on SCO. Under the House Committee bill, a producer participating in RLC is not eligible to participate in SCO, while a producer in PLC may purchase SCO with a 10 percent deductible. Another issue is that under the House bill, STAX may use a reference price to establish the insurance guarantee that exceeds the expected market price. The House bill specifies that the risk associated with the use of the reference price is to be borne by the government, not the insurance companies. A simulation analysis is presented later in this paper to gauge how a representative producer might choose among the many Title I farm bill options and crop insurance.

In addition to STAX and SCO, which will provide insurance companies with new opportunities for sales, the bills specify several other new products to be developed, including peanut revenue insurance, whole farm insurance, margin insurance coverage for catfish, and insurance for sorghum and sweet sorghum for use as bioenergy or bioproducts. There are also a series of research priorities and feasibility studies specified as noted in Table 2.

Program Changes: The Senate bill includes an Adjusted Gross Income (AGI) test for receipt of premium discounts. Subsidies are reduced 15 percentage points for producers with AGI over $750,000. The Senate bill also makes receipt of premium discounts contingent on producers being in compliance with wetland conservation and highly erodible land conservation provisions (compliance required within five years for the latter). These changes are of concern to the crop insurance industry primarily because they are directed at conservation and farm size, not risk management and insurance, and may discourage program participation, which is essential for an efficiently functioning insurance program.

Another program change only in the Senate bill would provide premium discounts for weather index products that are offered by companies that are not approved insurance providers and are not reinsured under the Standard Reinsurance Agreement. While this provision allegedly is intended to limit the impact of supplemental revenue programs on existing private insurance products, it creates disparate regulatory treatment of approved

Figure 2. **Example Coverage Bands with RP, CAT, ARCI & SCO**

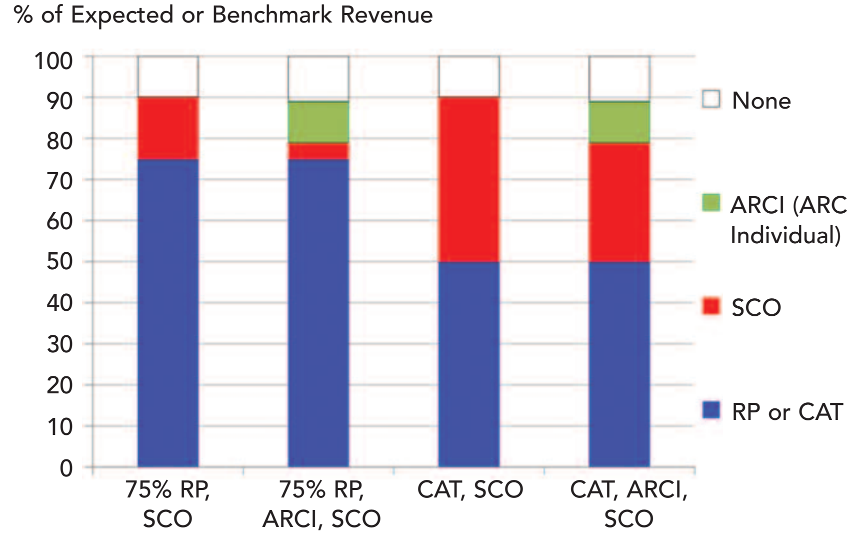


Figure 3. **Example Coverage Bands with RP, CAT and STAX**

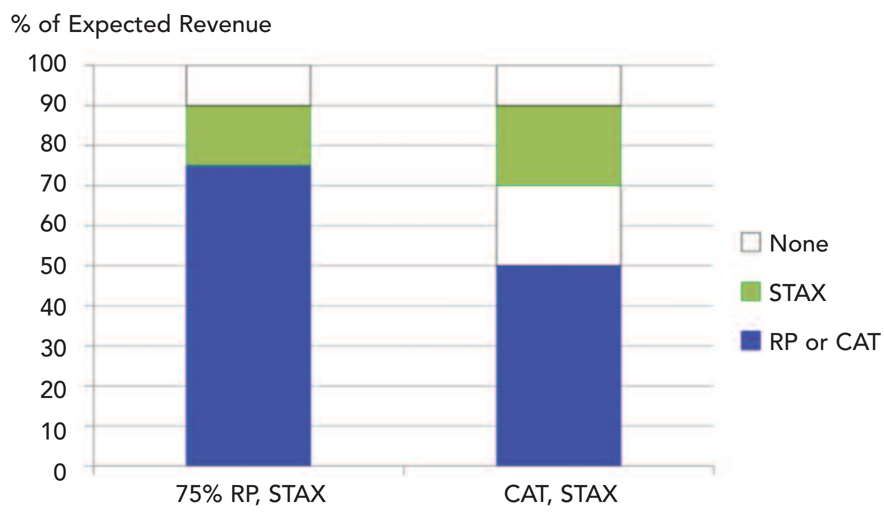


Table 3. **CBO Cost Estimates for Crop Insurance, Title XI***

Section	Senate	House
SCO	3,001	3,998
STAX	3,224	3,851
Peanut Revenue Plan	239	239
CAT Premium Adjustment	-437	-437
EU by Practice	506	506
APH Yield Plug	855	1,127
Beginning Farmer	193	192
Native Sod	-168	-102
Coverage by Practice	NA	166
Specialty Crops A&O	NA	205 (over 5 years)
Livestock Pilots	NA	239
Implementations Provisions	In "Other"	85
Title I Impacts	-2,469	-639
Other	93	96 (NAP)
Total	**5,036**	**9,523**

*Changes from baseline, 2013-2022

insurance providers and the providers of the private weather index products, with the former subject to much greater oversight and control.

Another change in both bills is setting imputed CAT premium rates at actuarially sound levels, which would reduce premium rates and thereby reduce company administrative and operating expense (A&O) payments and underwriting gains. The concern here is that A&O payments for CAT policies are already quite low (six percent of premium) and further reductions will make profitably servicing CAT policies quite difficult.

In addition to these changes, there are a variety of changes in the bills that include allowing enterprise units by practice, allowing different coverage levels on irrigated and dryland acres, raising the Actual Production History yield plug to 70 percent of transition yields, raising the funding for livestock pilot programs, increasing benefits for beginning farmers and reducing benefits for producers who plant on native sod.

Research & Development and Product Approval Changes: The Senate bill would restore the Risk Management Agency's (RMA's) authority to conduct research, and both bills specify priority areas of research. The bills clarify standards for the Federal Crop Insurance Board of Directors to use in new product approvals and the Senate bill provides for more advanced funding of research on 508(h) products. The Senate bill also includes a consultation provision that is of great interest to specialty crop producers who want to ensure that any new pilots are in the interest of their industry and that impacts of crop insurance on markets have been analyzed and considered by the FCIC Board.

Administrative and Implementation Process Changes: One area of concern to insurance companies has been the whole area of data used to administer crop insurance. The wide expansion of area plans across all crops and regions embodied in the pending bills means there will be great data challenges in program implementation. The bills specify that yields for crop insurance area plans should be based on RMA or NASS data or other data as appropriate. The House bill requires timely release of FSA data to insurance agents if authorized by producers. There are also provisions for agents and companies to correct errors on eligibility information without incurring sanctions. While these provisions take positive steps, crop insurance companies would like to ensure their involvement in the data used for the policies they sell and service, and they would like to ensure the producer's data is the accepted data.

Standard Reinsurance Agreement (SRA) Provisions: The bills specify that "to the maximum extent practical," SRA negotiations shall be "budget neutral" and may not significantly depart from neutrality. If there are savings that are not a significant departure from neutrality, they are to be used for programs administered by RMA. Another provision in the House bill would provide $41 million per year, for 2011 through 2015, for added administrative and operating expense (A&O) payments to approved providers for selling crops that do not benefit from the programs under Title I—mainly specialty crops. This provision is meant to help address the effects of the state caps on A&O and agent commissions in states that have not experienced sharp increases in crop prices, which have affected the distribution of A&O payments across states.

Budget Impacts of the Pending Farm Bills

Table 3 presents the changes from the crop insurance baseline as a result of key provisions in the Senate and House bills, as estimated by the Congressional Budget Office (CBO). Baseline spending for crop insurance is $89.5 billion over fiscal years 2013 through 2022 (CBO, March 2012). Details on the changes from the baseline for Title XI provisions that CBO estimated are contained in the CBO cost estimates listed in the References section of this article.

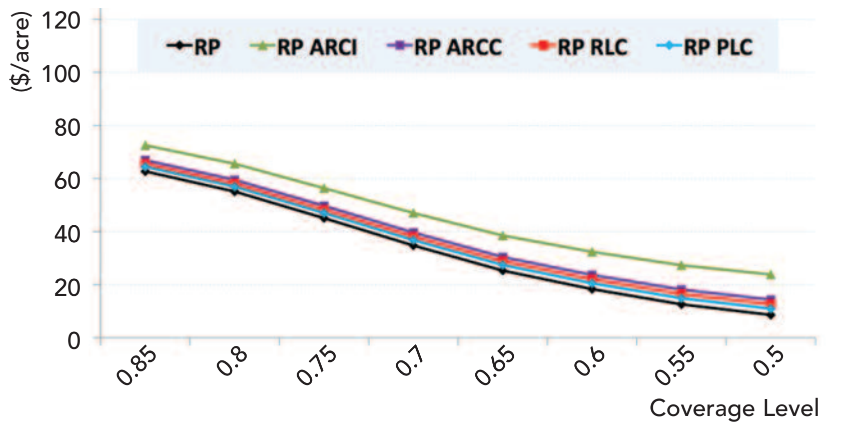
The Senate bill would raise funding for crop insurance by $5 billion over 10 years and the House bill would raise funding by $9.5 billion. The major increases are due to participation in SCO and STAX. The major decreases are interaction effects of Title I programs on crop insurance. For example, ARC and RLC are expected to result in lower participation and coverage levels for crop insurance participants. Presumably, effects of the programs on planted acres are also taken into account. Another reduction in funding is lower imputed CAT premium rates which reduce A&O and company underwriting gains.

Analyses of Farm-Level Impacts of New Programs

To gain insight on how changes in commodity program and crop insurance provisions may affect producers, we have done a simulation analysis of the supplemental revenue provisions of the Senate and House versions of the 2012 Farm Bill for a representative farm in Champaign County, Ill. with an optional unit of 100 acres of irrigated/non-irrigated corn as if the programs were in effect in 2012 and 2013. We conducted a similar analysis for a representative upland cotton farm with an optional unit of 100 irrigated acres in Hale County, Tex. The details of the analysis and results are in the papers by Bulut and Collins.

Simulation Method: The outputs of the simulation include simulated farm and county level yields and simulated harvest and U.S. marketing year average prices. Distributions were estimated for national, state, and county yields and the farm yield distribution was derived from the county yield distribution and RMA premium rates. The insurance harvest price is estimated based on the national yield, and the marketing year price is estimated from the insurance harvest price. The analysis starts by simulating national, state and county yields by generating 10,000 observations. Conditional on the draws from the national yield distribution, the harvest futures price is simulated. Finally, farm level yields are simulated as a deviate from county yields. Premium rates are estimated to be actuarially fair for traditional crop insurance options as well for SCO and STAX. The variables are generated in 10,000 draws, and payments are then calculated under alternative crop insurance and Farm Bill programs in which the producer may choose to participate. For each option, the farmer's wealth is evaluated at each draw using premium rates, subsidies, yields and prices, thus yielding 10,000 wealth levels. The wealth levels are converted to 10,000 utility levels, which are averaged to determine an expected utility for the option. The expected utility and the producer's degree of risk aversion are then used to obtain a Certainty Equivalent (CE) of wealth for each farm bill option. The CE is the wealth that would make the producer indifferent between having that wealth with certainty and the expected wealth from a particular farm bill option.

Figure 4. **Value of Farm Bill Programs to a Corn Farm Under 2012 Market Conditions***
Title I Programs with RP



* For a representative corn farm in Champaign County, Ill. with 100 acres.
* Value is the Certainty Equivalent (CE) of wealth with the option minus CE of wealth without the option (no government support). The difference is divided by the number of acres. Notation: Revenue Policy, RP; ARC Individual, ARCI; ARC County, ARCC; Revenue Loss Coverage, RLC; Price Loss Coverage, PLC.

Simulation options: Based on the Senate and House versions of the 2012 Farm Bill, the following nine participation alternatives were simulated for the representative corn farm:

(1) Crop Insurance (CI) only (Revenue Protection, RP; Revenue Protection with Harvest Price Exclusion, RP-HPE; or Yield Protection, YP),
(2) CI and Supplemental Coverage Option (SCO, included in both Senate and House bills). SCO is assumed to mimic the underlying crop insurance policy, with SCO1 for YP; SCO2 for RP and SCO3 for RP-HPE,
(3) CI and individual-based Agricultural Risk Coverage (ARC Individual, a Senate bill option),
(4) CI and county-based ARC (ARC County, a Senate bill option),
(5) CI, ARC Individual and SCO,
(6) CI, ARC County and SCO,
(7) CI and Revenue Loss Coverage (RLC, a House bill option),
(8) CI and Price Loss Coverage (PLC, a House bill option) and
(9) CI, SCO and PLC.

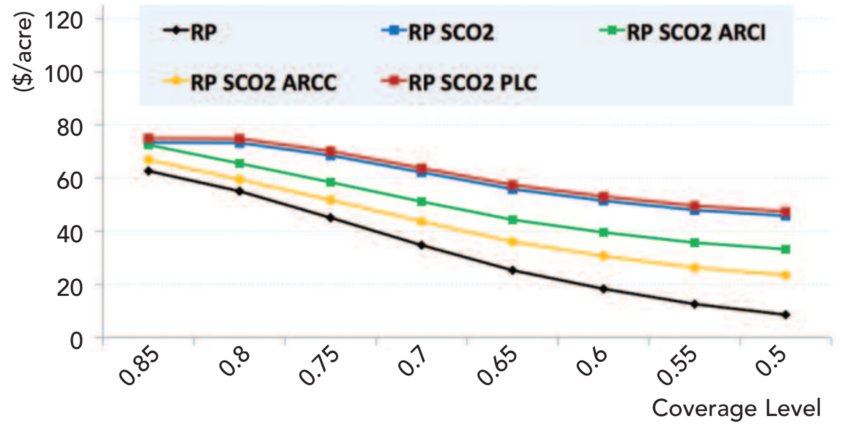
For the representative cotton farm, which cannot participate in ARC, RLC or PLC, the following six participation options were simulated:

1) CI only (RP, RP-HPE and YP),
2) CI and SCO with SCO again operating as the underlying CI policy operates,
3) CI and the Senate version of the Stacked Income Protection (STAX) program with Harvest Price Option (HPO) (denoted with SSTAX2),
4) CI and the House version of STAX program with HPO (denoted with HSTAX2),
5) SSTAX2 as a stand-alone policy and
6) HSTAX2 as a stand-alone policy.

Simulation Results: Selected results from the simulations for corn are presented in Figures 4-7. Only RP with the various supplemental programs is illustrated. The corn simulations were done as if the producer was participating in 2012 and 2013. The base price for 2012 is $5.68 per bushel and for 2013 is $5.06 per bushel, which was estimated from a projected marketing year price. The benchmark prices for ARC are $4.48 in 2012 and $5.11

Figure 5. **Value of Farm Bill Programs to a Corn Farm Under 2012 Market Conditions***

Title I Programs with RP and SCO



* For a representative corn farm in Champaign County, Ill. with 100 acres.
* Value is the Certainty Equivalent (CE) of wealth with the option minus CE of wealth without the option (no government support). The difference is divided by the number of acres. Notation: Revenue Policy, RP, SCO for a revenue policy, SCO2; ARC Individual, ARCI; ARC County, ARCC; Price Loss Coverage, PLC.

in 2013. Similarly, market prices are estimated lower in 2013. Thus, with the gap between the insurance price and the farm program price shrinking in 2013, these two years provide an opportunity to assess farmer preference in two alternative price environments.

Two corn figures are shown for each year so that the charts are more readable. More options for other plans of insurance are presented in the simulation papers listed in the Reference section. Several conclusions follow:

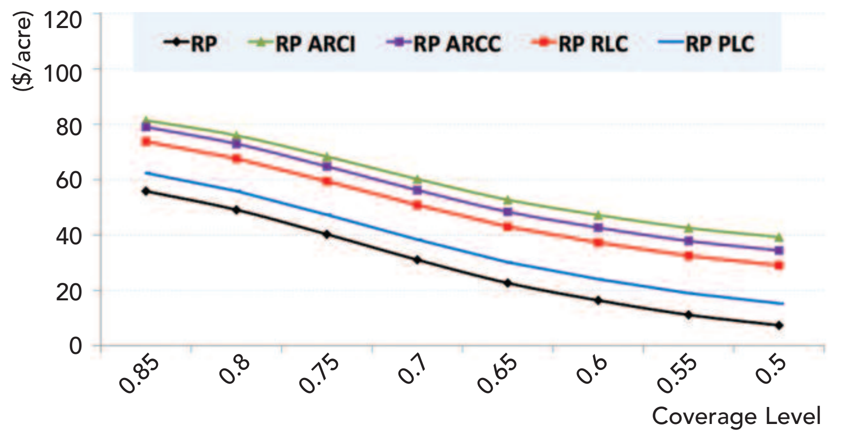
* RP provides higher value to the farmer than RPHPE or YP.
* At each coverage level, the farmer is better off with RP combined with SCO, ARC Individual, ARC County, RLC or PLC than with just RP alone.
* The farmer's highest value is RP at 85 percent with SCO revenue and PLC in the 2012 analysis. RP at 80 percent with SCO revenue and PLC is a close second. Whereas, in the 2013 analysis, with more favorable ARC prices, the farmer's top choice switches to RP at 85 percent with ARC Individual. RP at 85 percent with ARC County is a close second. Similarly, with lower average market prices in 2013, the farmer's valuation for PLC and RLC are also higher in 2013, as these options pay out more often than in the 2012 simulation.
* While not shown here, the simulations show that whether SCO policies are offered as yield or revenue based makes a significant difference in terms of payouts and the farmer's valuation of the Farm Bill alternatives considered here. Payouts and farm value are greater with revenue-based SCO.
* Under the Senate bill, the farmer prefers ARC individual coverage to ARC county coverage (more so in the 2012 analysis and only slightly in the 2013 analysis).
* Under the House bill, the farmer prefers RLC to PLC (more so in 2013 analysis and only slightly in 2012 analysis).
* In most program options, farm value is increased by increasing coverage level. The results suggest minimal incentives to buy down RP coverage levels in the presence of other title I programs or SCO.

Selected results from the simulations for upland cotton are presented in Figures 8 and 9. The simulations were done under two alternative market price environments, 2012 and 2013. The base price for 2012 is 93 cents per lb. and for 2013 is 83.4 cents per lb., which was estimated from a projected marketing year price. Average market prices are similar for the two years. For cotton, the results indicate:

* RP provides higher value to the farmer than RP-HPE, YP or a stand-alone STAX policy (for the latter 50 percent coverage in the 2012 analysis is the lone exception).
* At each coverage level, the farmer is better off with RP combined with SCO or STAX than with just RP alone.
* The farmer derives the highest value from RP at 70 percent coverage with

Figure 6. **Value of Farm Bill Programs to a Corn Farm Under 2013 Market Conditions***

Title I Programs with RP



* For a representative corn farm in Champaign County, Ill. with 100 acres.
* Value is the Certainty Equivalent (CE) of wealth with the option minus CE of wealth without the option (no government support). The difference is divided by the number of acres. Notation as in Figure 4.

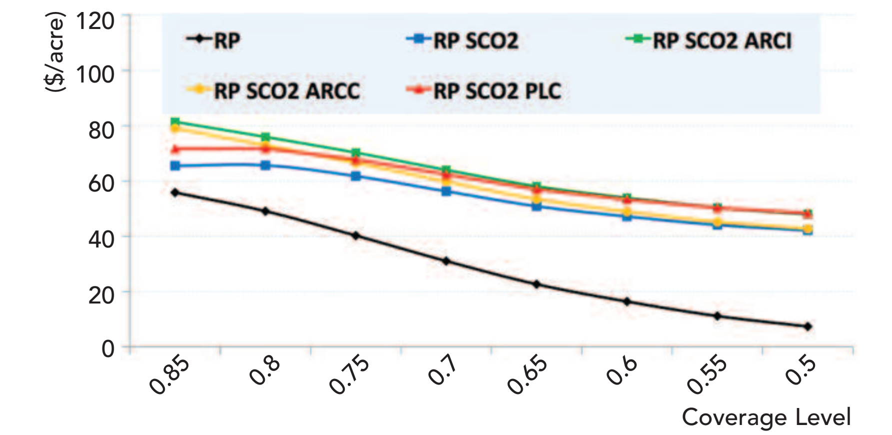
STAX in the 2012 analysis. RP at 75 percent coverage with STAX is a close second. In the 2013 analysis, the farmer's top choice switches to RP at 75 percent with STAX while RP at 70 percent with STAX is a close second. Thus, some buy down from 80 to 85 percent to 70 to 75 percent coverage levels with RP policy can be expected with the arrival of STAX.

* The farmer's valuations of both Senate and House versions of STAX are the same because base insurance price remains higher than the reference price both in the 2012 and 2013 analyses.
* As expected, whether SCO policies are offered as yield or revenue based makes a significant difference in terms of payouts and the farmer's valuation of the Farm Bill alternatives considered here, with revenue based SCO meriting a higher value.
* The farmer values STAX more than SCO as the STAX program comes with a higher subsidy rate. The value difference is higher in the 2012 analysis due to a higher STAX benchmark yield relative to the SCO benchmark yield.

The simulation papers from which these results were drawn also provide results for alternative correlation levels between the farm yield and the county yield for corn and cotton. In the results presented here, the farm-county yield correlation for corn is about 0.5 and for cotton, about 0.3 (as implied by the assumed statistical relationship that farm yield equals county yield plus an error term). However, as the corn farm yield becomes more correlated with the county yield, the value of ARC County increases relative to ARC Individual, and the value of SCO rises. The highest value under the 2012 price environment is at 80 percent RP with SCO and PLC, rather than 85 percent. In the 2013 price environment, 85 percent RP with ARC county option provides the highest value with 85 percent RP with ARC individual option nearly as high. Similarly for cotton, the higher the correlation, the more valuable STAX becomes. The incentive to buy down to 70 to 75 percent RP continues to hold. The upshot is, to the extent these farms represent other farms, and if rated fairly, the crop insurance industry can expect SCO and STAX to be reasonably popular, and there may be some buy down at high coverage levels.

Figure 7. Value of Farm Bill Programs to a Corn Farm Under 2013 Market Conditions*

Title I Programs with RP and SCO



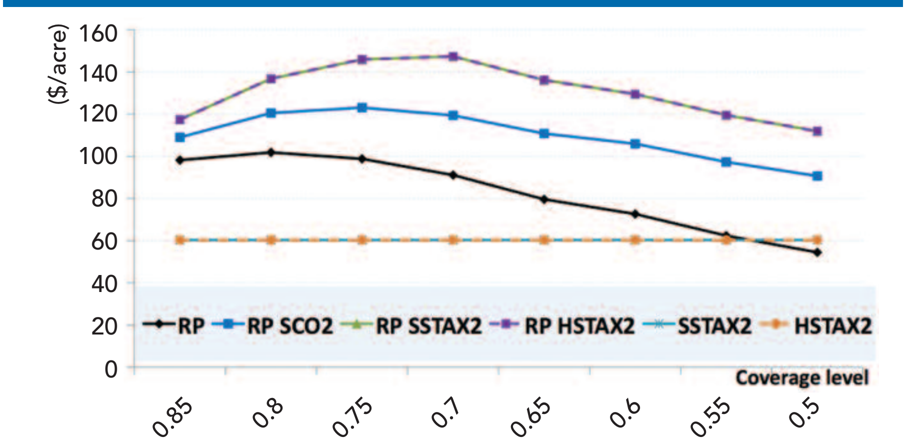
* For a representative corn farm in Champaign County, Ill. with 100 acres.
* Value is the Certainty Equivalent (CE) of wealth with the option minus CE of wealth without the option (no government support). The difference is divided by the number of acres. Notation as in Figure 5.

And Next . . .

Under normal order, the House Farm Bill would go to the floor, and after passage, the differences between the House and Senate versions of the Farm Bill would be worked out in a conference of the two chambers. As of this writing, it remains unclear how the process will proceed and the timeline to completion. The crop insurance industry would like to see a final bill enacted as soon as possible so the important strengthening of the crop insurance program can be put in place, and the policy uncertainty facing farmers can be alleviated.

Figure 8. Value of Farm Bill Programs to an Upland Cotton Farm Under 2012 Market Conditions*

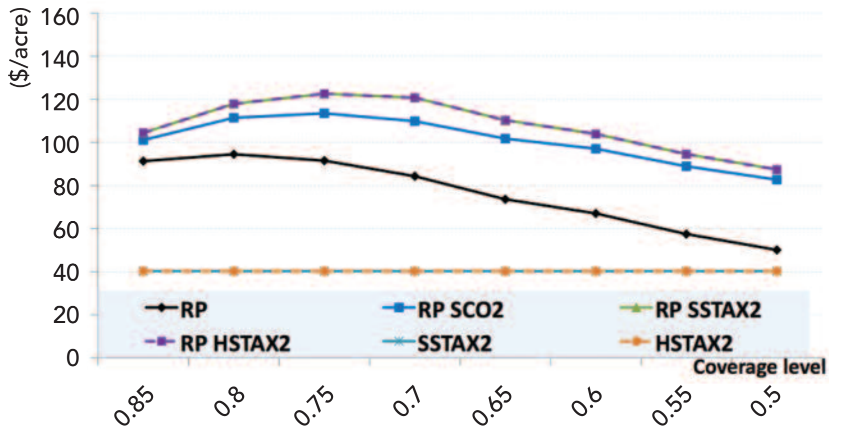
RP with STAX or SCO



* For a representative irrigated cotton farm in Hale County, Tex. with 100 acres.
* Value is the Certainty Equivalent (CE) of wealth with the option minus CE of wealth without the option (no government support). The difference is divided by the number of acres. Notation: SCO Revenue Policy for RP, SCO2; Senate STAX Policy with Harvest Price Option (HPO), SSTAX2; House STAX Policy with HPO, HSTAX2. Unlike SSTAX2, HSTAX2 sets a lower bound of $0.6861/lb for the base insurance price. STAX policies are at 90% Coverage and Protection Factor of 1.0.

Figure 9. **Value of Farm Bill Programs to an Upland Cotton Farm Under 2013 Market Conditions***

RP with STAX or SCO



* For a representative irrigated cotton farm in Hale County, Tex. with 100 acres.

* Value is the Certainty Equivalent (CE) of wealth with the option minus CE of wealth without the option (no government support). The difference is divided by the number of acres. Notation is as in Figure 8. STAX policies are at 90% Coverage w/Protection Factor of 1.0.

In conclusion, many changes and much debate should be expected as the Farm Bill process goes forward. Nevertheless, completion of the Senate and House Committee versions represents a critical milestone and will frame the remaining discussion. Perhaps the most impressive statement made by the content of the current bills is their reflection of the commitment of U.S. producers and the public, as embodied by Congress, to risk management and to crop insurance as its primary instrument.

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