USDA's latest look at climate change leaves unanswered questions

By Sara Wyant

Washington, Dec. 2. A new look at USDA's preliminary analysis of the American Clean Energy and Security Act (H.R. 2454) indicates that there are still a lot of unanswered questions about how a "cap and trade" system would impact the cost to produce food, feed, fuel and fiber.

"It is clear from today's hearing that there is still a lot of uncertainty with some of the modeling assumptions and data used to estimate the potential impact of climate change and climate change legislation on agriculture," Subcommittee Chairman Tim Holden (D-PA) said regarding the Conservation, Credit, Energy, and Research hearing on Tuesday. The subcommittee reconvenes today to look at the potential for agriculture to earn additional revenue from offsets under the ACES legislation.

Ranking Republican Bob Goodlatte (R-VA) also underscored the need to provide more analysis, but made it clear that, especially with net farm income expected to be down $30 billion in 2009, "Rural America cannot afford the economic stifling effects of a cap and trade policy," which he dubbed "the Agriculture Can't Exist Standards."

In general, USDA Chief Economist Joe Glauber testified that energy costs will increase only gradually in the short term, but could increase significantly for some crops over the long-term, especially after 2025 when fertilizer price impacts are included in the analysis. Under H.R. 2454, the fertilizer industry would be one of several energy-intensive industries that is exempt from emissions caps during the early years of implementation.

There's no question that agriculture is an energy-intensive sector, testified Glauber during the hearing. However, offsets could provide income opportunities to cover the production cost increases.

"The single most important issue in this debate is how the offsets will be structured," emphasized Glauber who will be back before the subcommittee today to testify about the potential revenue impacts from offsets.

Glauber provided several tables to indicate the potential impacts of higher energy costs as a result of the legislation. The one below shows estimated impacts on per acre variable costs of production during three different time frames: 2012-2018 (when fertilizer price impacts would be excluded), 2027-33 and 2042-48 (when fertilizer price impacts would be included). Glauber's office also a produced a map (see below), which clearly indicates why Senate Agriculture Committee Chairman Blanche Lincoln (D-AR) and other representatives from rice and cotton producing areas are expected to be concerned about how their growers can compete under a cap and trade system.

Table 11--Estimated impacts on per acre variable costs of production of higher energy prices under an emissions cap-and-trade system ($2005/acre, percent change from baseline in parentheses)

Crop	Short-term (with rebate)	Medium-term (no rebate)	Long-term (no rebate)
Corn	1.19	12.02	25.19
	(0.4%)	(4.6%)	(9.6%)
Sorghum	1.26	5.45	11.30
	(0.9%)	(3.9%)	(8.0%)
Barley	0.70	5.00	10.44
	(0.6%)	(4.1%)	(8.5%)
Oats	0.57	4.12	8.66
	(0.6%)	(4.4%)	(9.3%)
Wheat	0.66	4.94	10.34
	(0.6%)	(4.5%)	(9.5%)
Rice	3.09	13.48	28.08
	(0.7%)	(3.1%)	(6.5%)
Upland cotton	1.46	7.90	16.44
	(0.3%)	(1.8%)	(3.7%)
Soybeans	0.45	2.50	5.19
	(0.4%)	(2.2)	(4.6%)

Table 12--Estimated impacts on net farm income of higher energy prices under an emissions cap-and-trade system ($2005 billion, percent change from baseline in parentheses)

Item	Short-term	Medium-term	Long-term
Total receipts	0.0	0.4	0.9
	(0.0%)	(0.2%)	(0.3%)
Total expenses	0.7	2.7	5.6
	(0.3%)	(1.1%)	(2.2%)
Fuel, oil and electricity	0.7	1.3	2.6
	(6.4%)	(11.1%)	(22.2%)
Fertilizer and lime	< 0.1	2.0	4.3
	(0.3%)	(9.5%)	(19.9%)
Net farm income	-0.6	-2.4	-4.9
	(-0.9%)	(-3.5%)	(-7.2%)

USDA data based on EPA results, selected time periods.

Figure 4-Reduction in farm business net cash income by resource region, EIA-based results, 2014, with EITE rebates