



Costs and Benefits of HR 2454 to the Ag Sector

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HR 2454:

Benefits for Society-at-Large

- improved energy efficiency
- reduced air pollution
- clean-energy economy
- reduced GHG emissions
- independence from foreign oil
- but with impacts on consuming & producing sectors



Ag Sector Economic Impacts

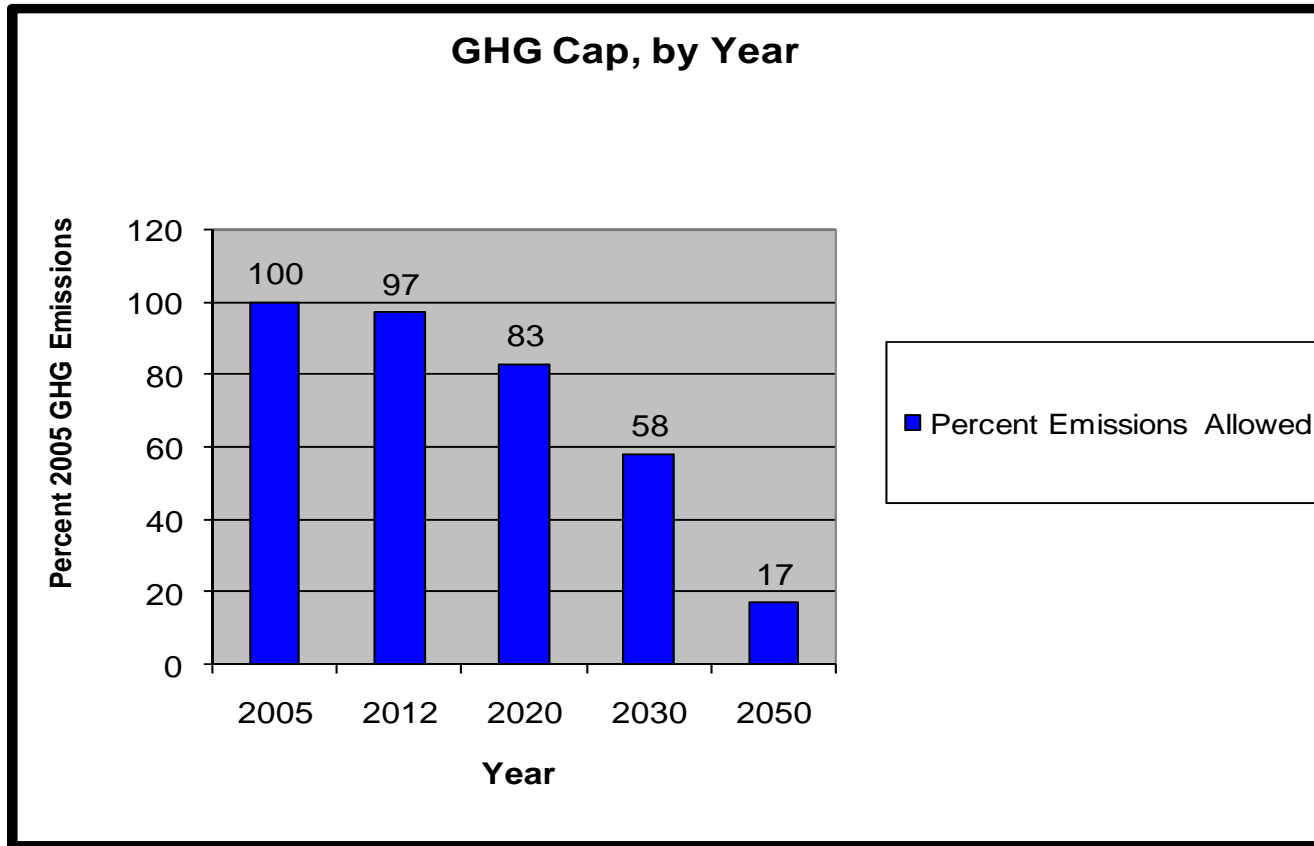
- Increased cost of production inputs:
 - fuel, electricity, natural gas
- Higher priced outputs
- Versus revenues from sale of carbon offsets
- What is the net effect?



Cap-and-Trade Provision

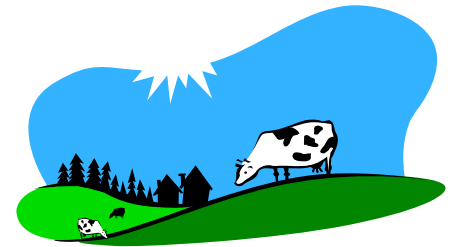
- National Cap on GHG emissions:
 - electricity producers, oil refiners, landfills, coal mines, and other emitters
- Ag sector not capped (9% of GHGs)
- Key: Capping & pricing bring about emission reductions
- Allowances issued or purchased
- Emitters submit allowances to cover emissions

The GHG Cap



Offsets for Ag, Range, Forestry

- Altering soil & crop mgmt.
- Planting winter crops
- Planting trees
- Altering grazing practices
- Reducing fertilizer use
- Manure management



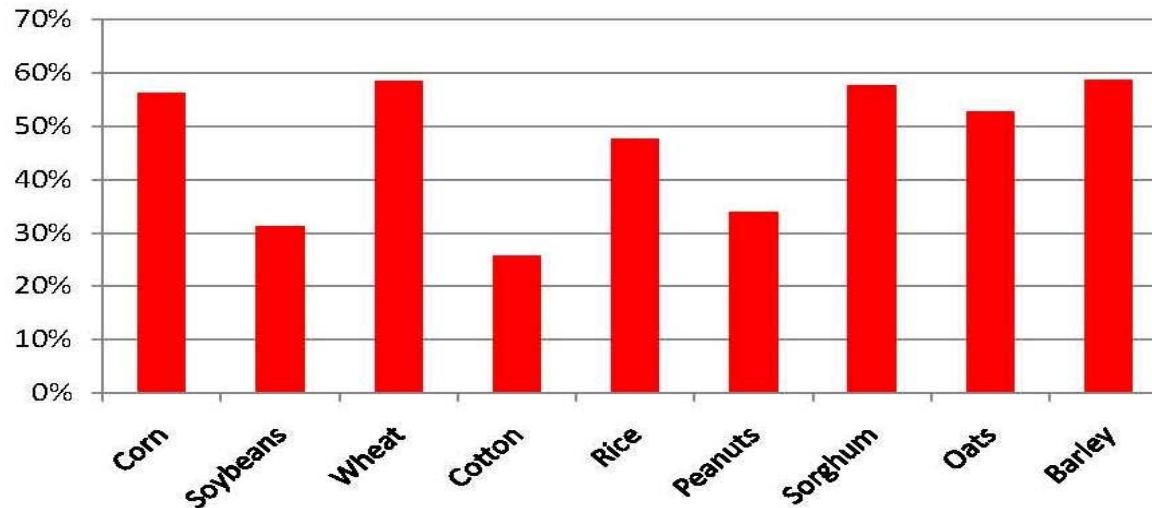


HR 2454: The Ag Sector Economic Analyses

- Food and Ag Policy Research Institute (FAPRI) – University of Missouri
- Center for Ag and Rural Development (CARD), Bruce Babcock, Iowa State U.
- TAMU Ag Food & Policy Center
- USDA Office of Chief Economist

Feed grains vs. Oilseeds: Relative Energy Costs

Figure 1--Energy costs as a share of total operating costs, 2005-08 average



Source: Economic Research Service

The logo graphic consists of a vertical black line on the left, a horizontal black line at the bottom, and three overlapping squares: a yellow one at the top left, a red one at the middle left, and a blue one at the bottom left. The text 'FAPRI' is in a blue, sans-serif font to the right of the vertical line.

FAPRI

- Analyzed representative Missouri farms to 2050
- FAPRI/CRA International
- Examined energy price increases
- No carbon offset sales
- Conclusion: increased fuel, fertilizer costs will “reduce farmers’ bottom lines.”
- Incomplete analysis



Bruce Babcock - CARD

- Iowa corn, soybean & livestock producers
- Compared energy costs vs. offsets
- Conclusions:
 - modest energy cost increases
 - revenues from offsets
 - net: minimal impacts
 - climate change impacts outweigh HR 2454 economic losses



Climate Change Impacts on Western Ag Producers?

- U.S. Climate Change Science Program said:
- "Climate change already affecting U.S. agriculture..."
- "...in the West, reliance on past conditions for water management...will no longer be tenable..."
- "Decreased mountain snowpack"



TAMU Study

- FLIPSIM model; 98 U.S. farms
- Examined increased prices for inputs e.g., fuel, electricity
- Both w/ & w/o carbon offsets
- Conclusion:
 - Oilseed producers (e.g., canola, soybean, cotton) will see minimal cost impact
 - Feedgrains, wheat need offsets to break-even

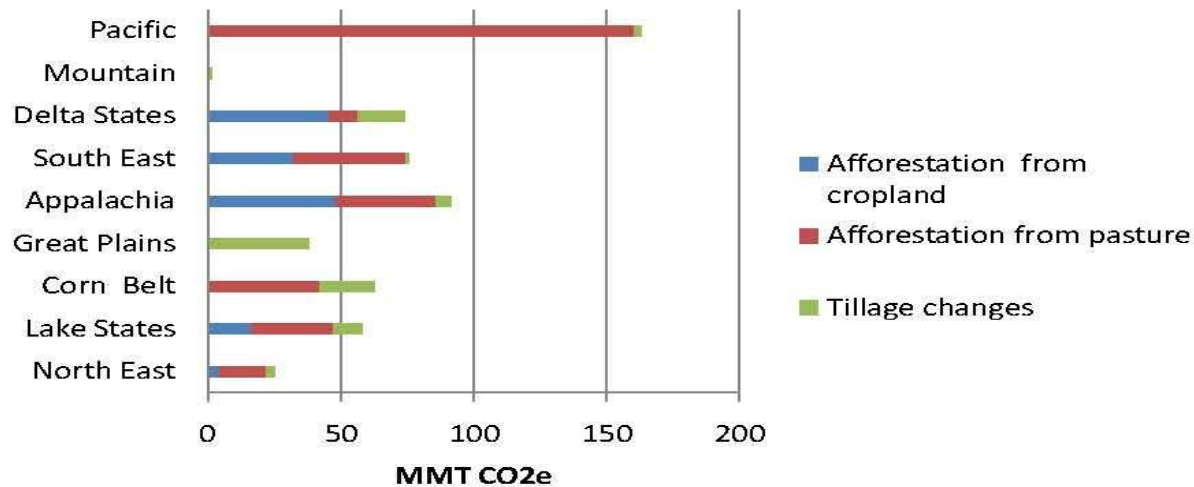


USDA Chief Economist

- Ag producers US-wide
- FAPSIM model
- Examines period 2012-2050
- Finds impact varies
 - regionally and
 - by type of ag-producer

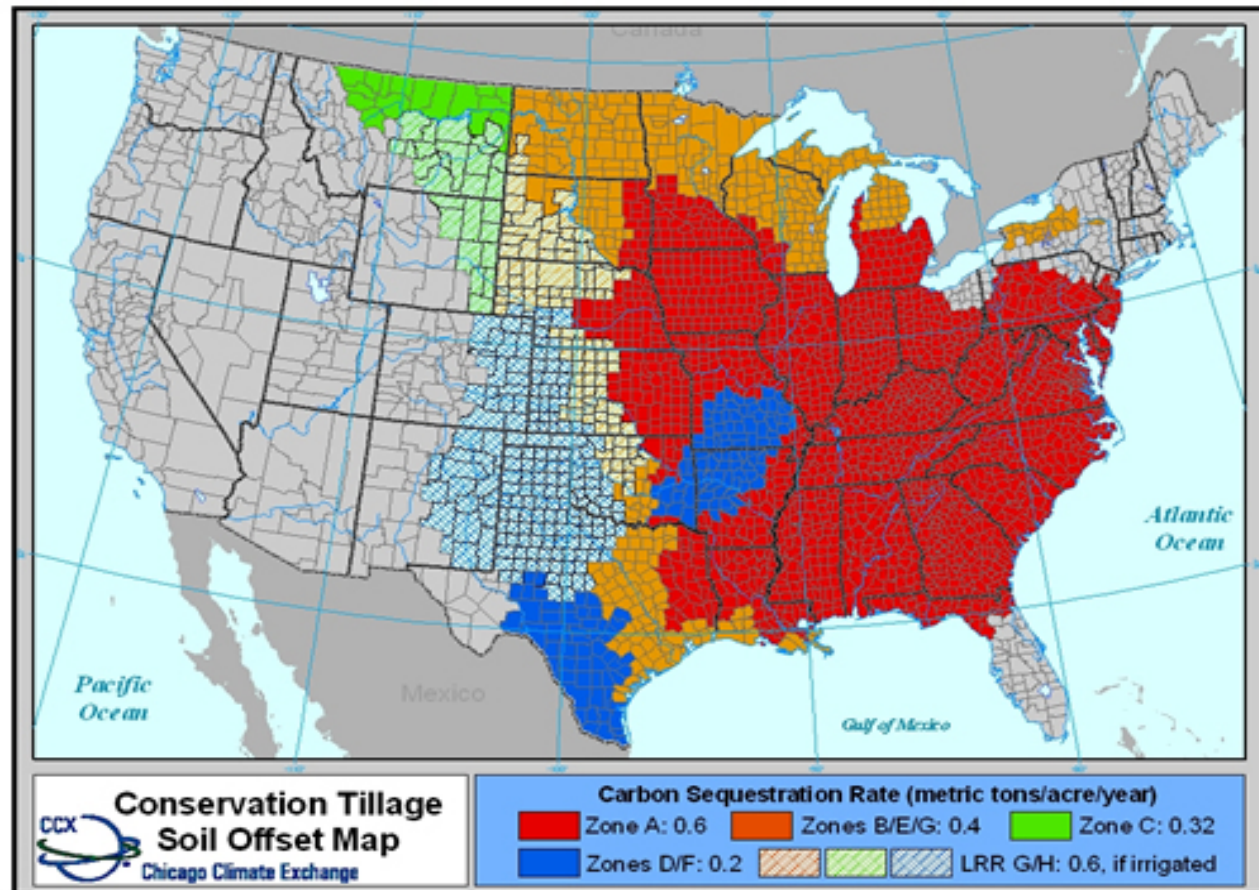
Regional Offset Markets

**Figure 4—Carbon Sequestration Potential by Region
(based on carbon price of \$34/MT CO₂e)**



Source: Lewandrowski et al. 2004

CCX Carbon Offsets in West





What Next?

- More complete economic analyses of ag sector impacts
 - Regionally
 - By producer types
- Research on offset markets in SW
 - physical
 - economic