



ACESA and Agriculture: A Research Review

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Matthew C. Roberts, Ph.D
Agricultural, Environmental and Development
Economics
The Ohio State University
Ohio State University Extension

Outline

- Research on ACESA Agricultural Impacts
 - Variable Cost Effects
 - Offsets
 - Fixed Costs
 - Increased Demand
- What does it all mean?
- Some Reminders from the Dismal Science

Most of the current research is relatively superficial.

- Due to complexity of all of the interactions of ACESA.
- ACESA is the most economically significant legislation since income tax legalization.
- How will market participants respond?

Most of the current research is relatively superficial.

- Because we do not know the full extent of price changes, we cannot know the responses of producers to changed prices.
- We can only estimate the carbon price that will be set.
- The entire economy *will* respond to the incentives created by cap-and-trade.
- Therefore, if we assume fixed technology, we will almost certainly overstate the impact of ACESA.

What research has been done on ACESA & Ag?

- Lots was done on Warner-Lieberman as well as generic GHG legislation.
- There are only a few specific to ACESA:
 - USDA
 - CARD-Iowa State University
 - FAPRI-University of Missouri

What are the direct cost effects?

- Fuel
- Fertilizer(?)
- Energy Use
- These are likely to be relatively small (5-15%).
- While the effects will be larger after 2025, they will still almost certainly be much lower than the rise in energy costs because of market forces.

What are the offset effects?

- No/Reduced Tillage
- Biodigestion
- Cover crops
- Overall, these will cover the increased direct costs, through at least 2025, when fertilizer allowances expire.

What are the other effects?

- Carbon embedded in capital expenditures:
 - Steel & Concrete
- Increased demand for biomass
 - Biofuels, biomaterials, co-generation
- Changes in producer/market behavior

These haven't been studied.

What is the net effect on Ag?

CARD-Iowa State University:

- “the negative impacts on agriculture will likely be relatively small, particularly if agricultural emissions remain uncapped”

What is the net effect on Ag?

FAPRI-University of Missouri:

- Only examines costs, not potential gains from offsets, biofuels, biomass, etc.
- By 2050, the cost of production of row crops in Missouri will increase 4.4-10.4%

Dispatches from the Dismal Science

- A (well-designed) Cap-and-Trade and a carbon tax are nearly identical to an economist.
- Prices of carbon consumption must rise in order to incentivize reduced consumption.
- In general, handing out carbon allowances (to generators, for example) will *not* prevent price increases to consumers.

The Devil is in the Details:

- Additionality
- Continuous No-Till cost of adoption
- Enforcement
- Are CAFOs certain that they are agriculture?
- Who owns the carbon credits, farmers or landowners?
- Program complexity? Look at ACRE signup.