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The Biomass Crop Assistance Program

Purpose of BCAP v1

2008 Farm Bill, Matching Payments Program:

“Assist agricultural and forest landowners and operators with the collection, harvest, storage and transportation of biomass to energy producers.”



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BCAP v1

- Provided matching payments to producers and operators
- Eligible biomass materials
- Qualified biomass conversion facilities
- Originally estimated the entire program would cost \$70 million over a five-year period



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BCAP v1

- Program halted early February; payments continued for materials delivered through March 31
- Publication of new proposed rule to govern the full implementation of the matching payment program and the initial implementation of the Crop Establishment and Annual Payment program



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BCAP v1 Results

The FSA:

- Approved 5,479 agreements
 - 5,145 for forest-generated material
- For delivery of more than 4.18 million tons of biomass



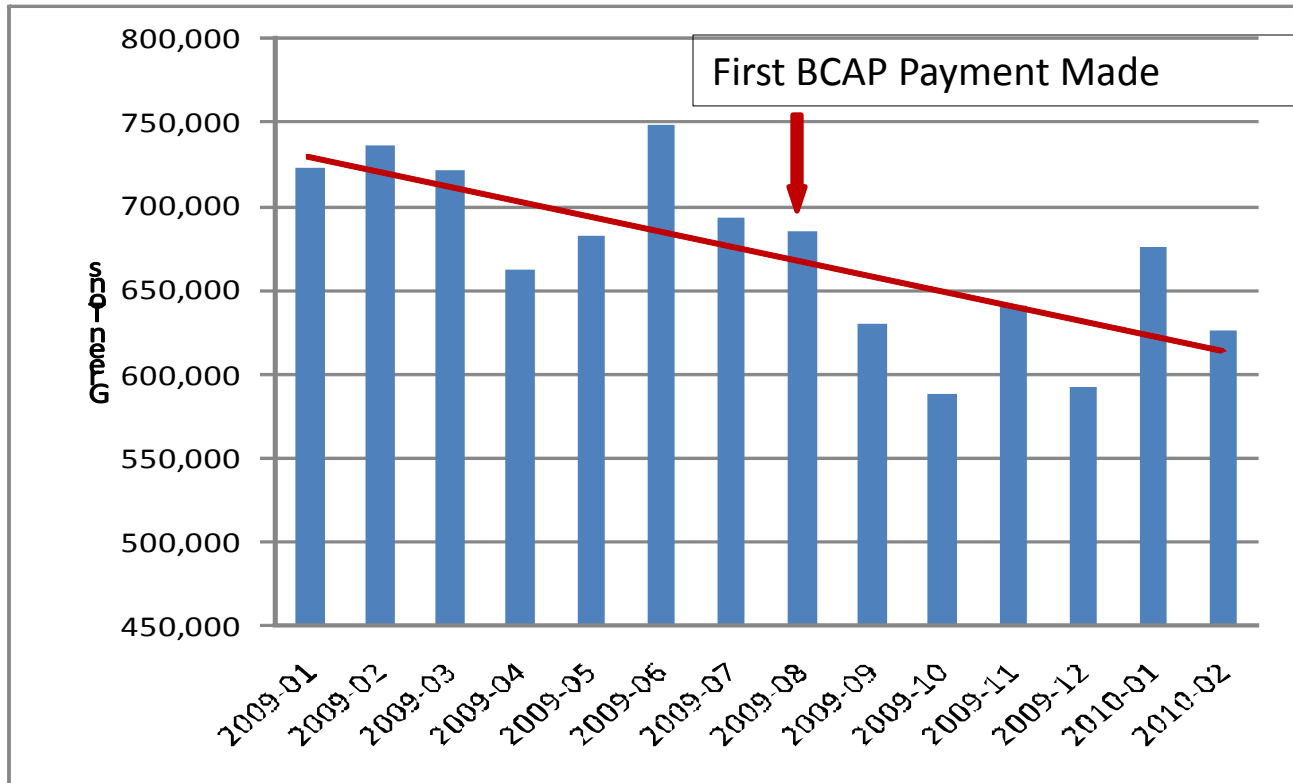
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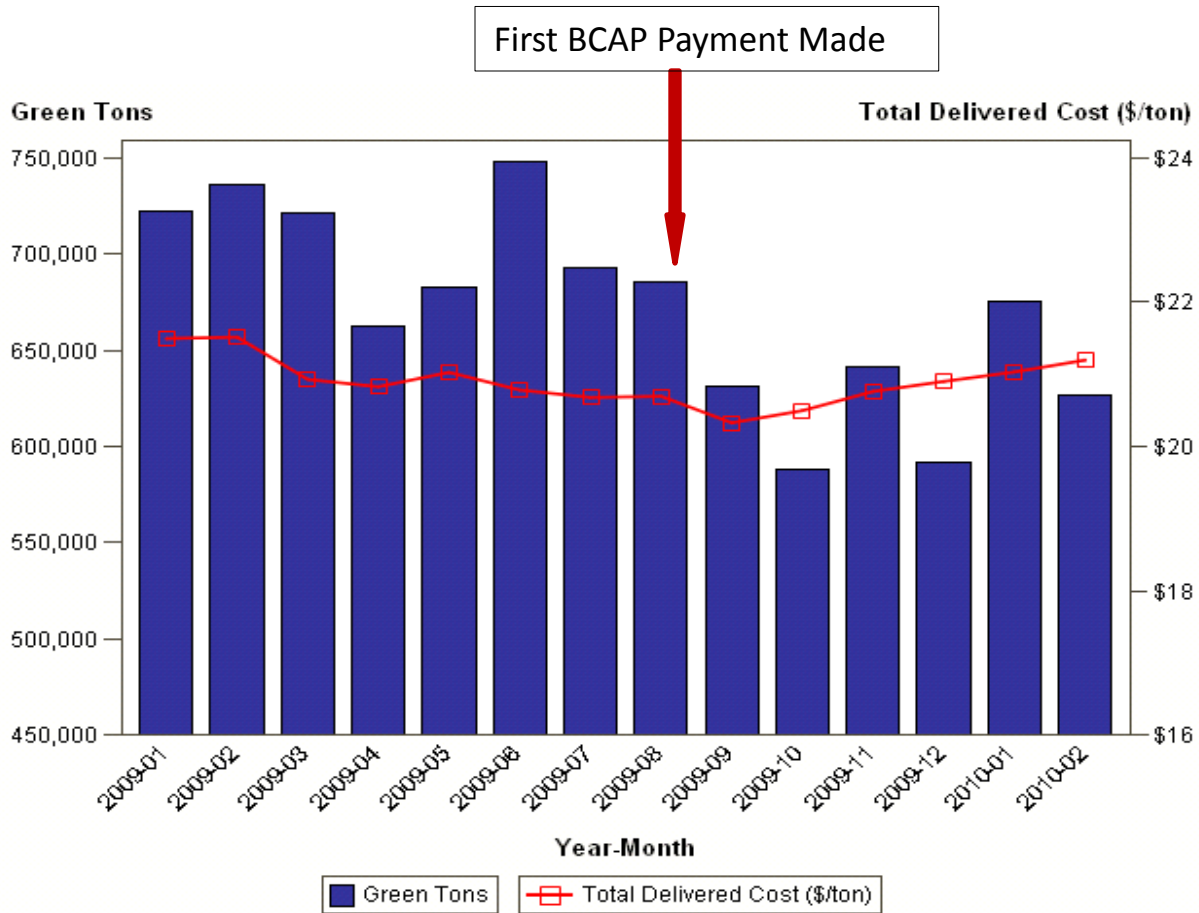
BCAP v1 Results

Delivered Fuelwood Volume Trend - South *from Forest2Market Delivered Price Benchmarks*



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Delivered Fuelwood Volume and Price Trend - South from Forest2Market's Delivered Price Benchmark



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Biomass Demand

- Weak demand due to economy
- Pellet plants running at half capacity due to fall off in demand
- New electricity plants few and far between
- Cellulosic ethanol still unproven
- Natural gas prices are historically low



Develop Supply Chain?

Temporary nature of program suggests that the intent is to develop low-cost biomass harvest and delivery systems that would continue to operate once BCAP ends.

- Investments made in equipment?
- Kept operators in business?



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**BCAP v2:
Increase Supply without Diverting It**

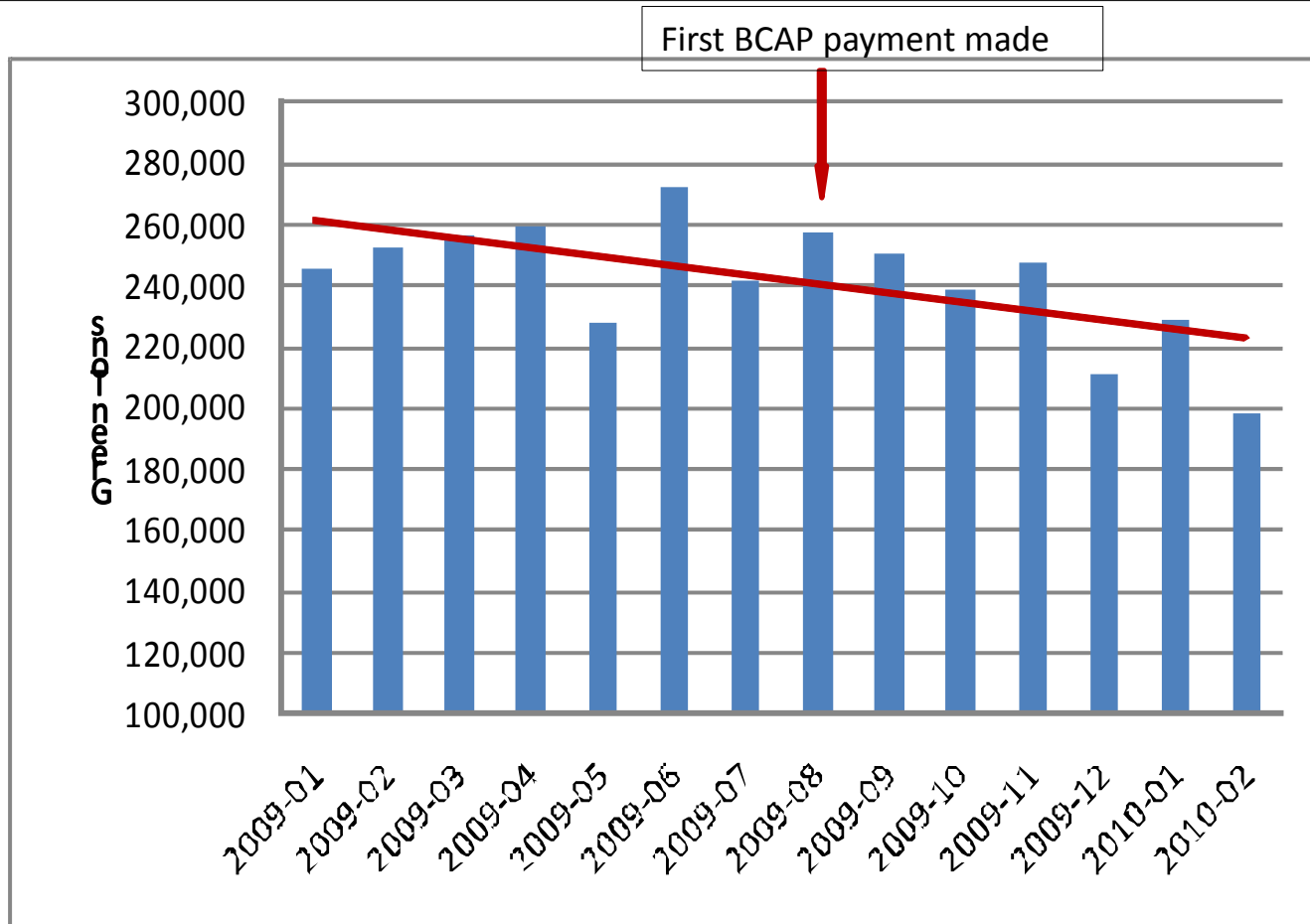
Focus on In-Woods Biomass

- Genuinely waste material
 - 0-15 percent of this material is currently being removed from forests
- All other forest materials have established markets



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Delivered In-Woods Biomass Volume Trend - South *from Forest2Market Delivered Price Benchmarks*



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BCAP v2: Eligible Materials

- Moves to tighten definition of what is eligible
- Limits eligible materials based on whether they are used in current markets for higher value-added purposes
- Focuses on in-woods supply



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Eligible Materials List

Wood and mill residuals such as:

- ~~Wood mill waste materials~~ including:

- ~~Sawdust~~ Forest harvest slash
- ~~Shavings~~ Post-disaster debris

Advanced biofuels:

- ~~Hardwood chips~~
- ~~Pellets~~
- ~~Softwood chips~~
- ~~Briquettes~~
- ~~Customs~~



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Issues with Eligible Materials List

Wood and mill residuals such as:

- Wood mill waste material scrap
- Forest harvest slash
- Shavings
- Post-disaster debris



Advanced biofuels:

- Hardwood chips
- Pellets
- Softwood chips
- Briquettes
- Cutoffs



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Issues with Eligible Materials List

Wood and mill residuals such as:

- Wood mill waste material scrap

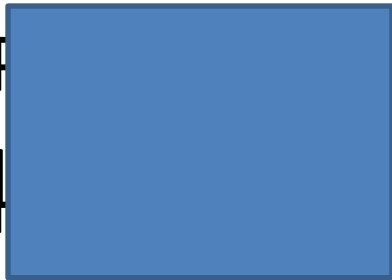
- Forest harvest slash

- Forest debris

Additional fuels:

- Pellets
- Softwood chips

- Briquettes
- Cutoils



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What's Left

Trees, shrubs, grindings and chips of in-woods waste used for energy production:

- Forest thinnings materials
- Forest harvest slash
- Post-disaster debris
- Cutoffs
- Bark



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Domestic? International?

- Pellet market
- Will payments go to companies exporting chips and pellets to European markets where renewable energy production is already heavily subsidized?



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BCAP v2: Proposed Payment Options

- Proposed rules either:
 - Remove or limit payments to early adopters, and/or
 - Provide greater incentives for a type of energy product or reduction of greenhouse gas emissions



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Option 1:

- \$ for \$ matching payment EXCEPT for suppliers of facilities producing heat or electricity for their own use.
- For these suppliers, matching payments available only on materials used to produce heat and power ABOVE the facility's historic baseline.



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Option 2

- A tiered approach
- Suppliers to advanced biofuels facilities would receive up to \$45/BDT matching payment
- Suppliers all other bioenergy facilities would receive:
 - \$16/BDT or
 - An amount based on the value of lower carbon emissions



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Option 3

- Matching payment based on production above an historic baseline.
- The full payment, up to \$45/BDT, would go to suppliers of:
 - New facilities
 - Facilities that convert from fossil fuel use to renewable biomass
 - Current facilities consuming more than historic



Which Option Will Prevail?

Key:

Encourage farmers and forest landowners to “develop a biomass supply chain and accelerate:

- Energy independence
- Rural economic development
- Displacement of fossil fuels with renewable



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Final Rules

- No target date has been set.
- Delay may be good for the program.



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**BCAP v2:
Establishment and Annual Payments**

Crop Trees

- Hardwood crops are generally identified as targets.
- Industry experience suggests this is problematic.
- Pine fuelwood plantations may provide opportunity.





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Establishing a Supply Chain

Why Subsidies Don't Work

- Subsidies rarely last long enough to benefit those not already poised to take advantage of them.
- If you give money to people you don't control, you can't control what they will use it for.
- The law of unintended consequences takes over.



Suggestions

- Loan guarantees would make logging companies better risks and ensure lower interest rates.
- Pair a no-interest loan for equipment purchase and a BCAP-like matching payment program



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Benefits

- Participants self-select.
- They are invested in the goals of the program.
- They are in it for the long haul.
- It sets up the right situation for success.
- It allows supply to meet demand.



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