



**U. S. DEPARTMENT OF AGRICULTURE**

**Cooperative State Research, Education,  
and Extension Service**

**Agricultural Materials Program**

**Carmela A. Bailey  
cbailey@reeusda.gov**

# 2002 FARM BILL UPDATE

- **Activities in CSREES, other USDA Agencies**
- **Funding Opportunities FSA, FAS, RD**
- **2002 Farm Bill Title IX Energy**





## **Current Scope in CSREES**

**National Research Initiative – competitive**

**Small Business Innovative Research Program –competitive**

**Agricultural Materials Program**

- **Formula funds - Hatch projects**
- **Special Research Grants-Earmarks**
- **Other – Biodiesel Fuel Education Program**
- **IFAFS 2000, 2001 - competitive**

# USDA AGENCIES

## Biobased Products Bioenergy Coordination Council

-  **Agricultural Research Service**
-  **Forest Service**
-  **Office of Energy Policy and New Uses**
-  **Foreign Agricultural Service**
-  **Office of the Assistant Secretary for Administration**
-  **Rural Business - Cooperative Service**
-  **Natural Resources Conservation Service**
-  **Agricultural Marketing Service**
-  **Cooperative State Research, Education, and Extension Service**
-  **Rural Utilities Service**
-  **Farm Service Agency**
-  **Office of Budget and Program Analysis**
-  **Office of the Under Secretary for Research, Education and Economics**

[www.ars.usda.gov/bbcc/](http://www.ars.usda.gov/bbcc/)

# FUNDING OPPORTUNITIES

## **Foreign Agricultural Service** [www.fas.usda.gov/mos/mapping.html](http://www.fas.usda.gov/mos/mapping.html)

- **Market Access Program**

competitive funding to state regional groups, cooperatives and U.S. ag trade organizations  
organizations to share the costs of overseas marketing  
\$110M awarded in FY 03

## **Rural Business Cooperative Service** [www.rurdev.usda.gov/rbs/coops/](http://www.rurdev.usda.gov/rbs/coops/)

- **Value-Added Agricultural Product Market Development**

- 💰 competitive grants to independent producers of value-added agricultural commodities and products
- 💰 strategies for ventures to create marketing opportunities
- 💰 \$40M program, up to \$500,000/grant

- **Agricultural Innovation Center Demonstration Program**

- 💰 Technical and business development assistance to rural businesses, farmers, ranchers
- 💰 \$10M awarded in 2003 to assist states in value-added ventures

# FARM SECURITY AND RURAL INVESTMENT ACT OF 2002

## Title IX Energy

- *Creative new set of programs*
- *Appropriations action required to implement some provisions*
- *New opportunities for biobased products, power, fuels*



# **Title IX Energy**

- ***Section 9002. Federal Procurement of Biobased Products***
- ***Section 9003. Biorefinery Grants – competitive grant program to convert biomass into multiple products; authorizes appropriations as necessary for FY 2003-2007***
- ***Section 9004. Biodiesel Fuel Education Program***
- ***Section 9005. Energy Audit and Renewable Energy Development Program – competitive grant program to administer energy audits and renewable energy development assessments for farmers, ranchers and small businesses; authorizes appropriations as necessary FY 2002-2007***
- ***Section 9006. Renewable Energy Systems and Energy Efficiency Improvements***

## **Title IX Energy**

- ***Section 9007. Hydrogen and Fuel Cell technologies – MOU between USDA and DOE regarding technology applications for producers and rural communities***
- ***Section 9008. Biomass Research and Development***
- ***Section 9009. Cooperative Research and Extension Projects – competitive grants for research on carbon fluxes and exchange of greenhouse gases from agriculture; authorizes appropriations as necessary for FY 2002-2007***
- ***Section 9010. Continuation of the Bioenergy Program***



## **Title IX Energy**

### **Section 9004. Biodiesel Fuel Education Program**

- ❑ Competitive Grant Program**
- ❑ Education on Benefits of Biodiesel Fuel Use**
- ❑ \$1M FY 2003-2007**
- ❑ 2 continuation grants made in September 03 to National Biodiesel Board and University of Idaho**
- ❑ Grants jointly administered by Office of Energy Policy and New Uses and CSREES**

# **Title IX Energy**

## **Section 9006. Renewable Energy and Energy Efficiency**

- **Loan guarantee and grant program**
- **Assist in purchasing renewable energy systems and efficiency improvements**
- **\$23M annual funding, FY 2003-2007**
- **\$21.2M awarded for wind, anaerobic digesters, solar, ethanol, direct combustion, fuel pellet systems**
- **Lead agency: Rural Business-Cooperative Service**  
**[www.rurdev.usda.gov/rbs/](http://www.rurdev.usda.gov/rbs/)**

# **Title IX Energy**

## **Section 9010. Continuation of the Bioenergy Program**

**Increase domestic consumption of ag commodities by expanding domestic markets**

**💰 Up to \$150M per year 2003-2006**

**💰 cash payments to bioenergy companies that increase purchase of corn, soybeans, other commodities, or a cellulosic commodity**

**💰 higher payments to small and new-to-market processors, including cooperatives**

**Lead agency: Farm Service Agency**

**[www.fsa.usda.gov](http://www.fsa.usda.gov)**

# **TITLE IX ENERGY**

## **Section 9008. Biomass Research and Development**

- **Authorizes \$14M per year FY 2003 through FY 2007**
- **USDA/DOE joint solicitation**
- **Natural Resources Conservation Service is lead agency for implementation**
- **Total of \$23M awarded in FY 2003**
  - **[www.nrcs.usda.gov](http://www.nrcs.usda.gov)**
  - **[www.bioproducts-bioenergy.gov](http://www.bioproducts-bioenergy.gov)**

# **TITLE IX ENERGY**

## **Section 9008. Biomass Research and Development**

### **FY 2003 USDA mission-related priorities:**


- **impact on agriculture**
- **rural economy, rural-based processing/manufacturing**
- **lifecycle perspective**
- **distributed power generation utilizing animal manure**
- **barriers to connections to commercial grid**

### **FY 2003 DOE mission-related priorities:**

- **energy/oil displacement**
- **biorefineries**
- **cellulose/hemicellulose conversion to sugars**
- **metabolic engineering**
- **catalytic processing**
- **separation technologies**
- **gasification/gas cleanup and conditioning**

# TITLE IX ENERGY

## Section 9008. Biomass Research and Development



INPUT MATERIALS	Funding*
Lignocellulosic materials, corn	\$13.3
Oils	\$ 4.0
Animal manure	\$ 3.0
New crop development	\$ 2.0
Crosscutting	\$ <u>0.7</u>
<b>TOTAL</b>	<b>\$ 23</b>
<b>OUTPUTS</b>	
Biobased products/chemicals	\$ 5**
Bioenergy	\$ <u>18</u>
<b>TOTAL</b>	<b>\$ 23</b>

\* estimates based on abstracts

\*\* does not include products as secondary objectives

# Title IX Energy

## Section 9002. Federal Procurement of Biobased Products

The intent of this section is to stimulate the production of new biobased products and to energize emerging markets for those products

➤ **Guidelines**

- **USDA will designate items**
- **Provide information about availability, price, performance, environmental and public health benefits, lifecycle costs, recommended biobased content**

➤ **Label**

- **USDA will develop criteria for a “USDA Certified Biobased Product” label**

**Lead agency: Office of Energy Policy and New Uses**

**[www.biobasd.oce.usda.gov/public/index.cfm](http://www.biobasd.oce.usda.gov/public/index.cfm)**

**Cooperative Agreement with ISU**

**[www.ciras.iastate.edu/usdabio.asp](http://www.ciras.iastate.edu/usdabio.asp)**

# BIOBASED PRODUCTS LIST

## Categories

- **Inks**
- **Sorbents**
- **Adhesives**
- **Construction Materials/Composites**
- **Fuel Additives**
- **Lubricants/Functional Fluids**
- **Fibers, Papers, Packaging**
- **Solvents, Cleaners**
- **Plastics**
- **Landscaping Materials, Composted Livestock and Crop Residue**
- **Paints, Coatings**

 **USDA will publish a list of designated items.**

# CRITERIA FOR PRODUCTS TO BE DESIGNATED BIOBASED

Draft regulation will be published for public comment on:

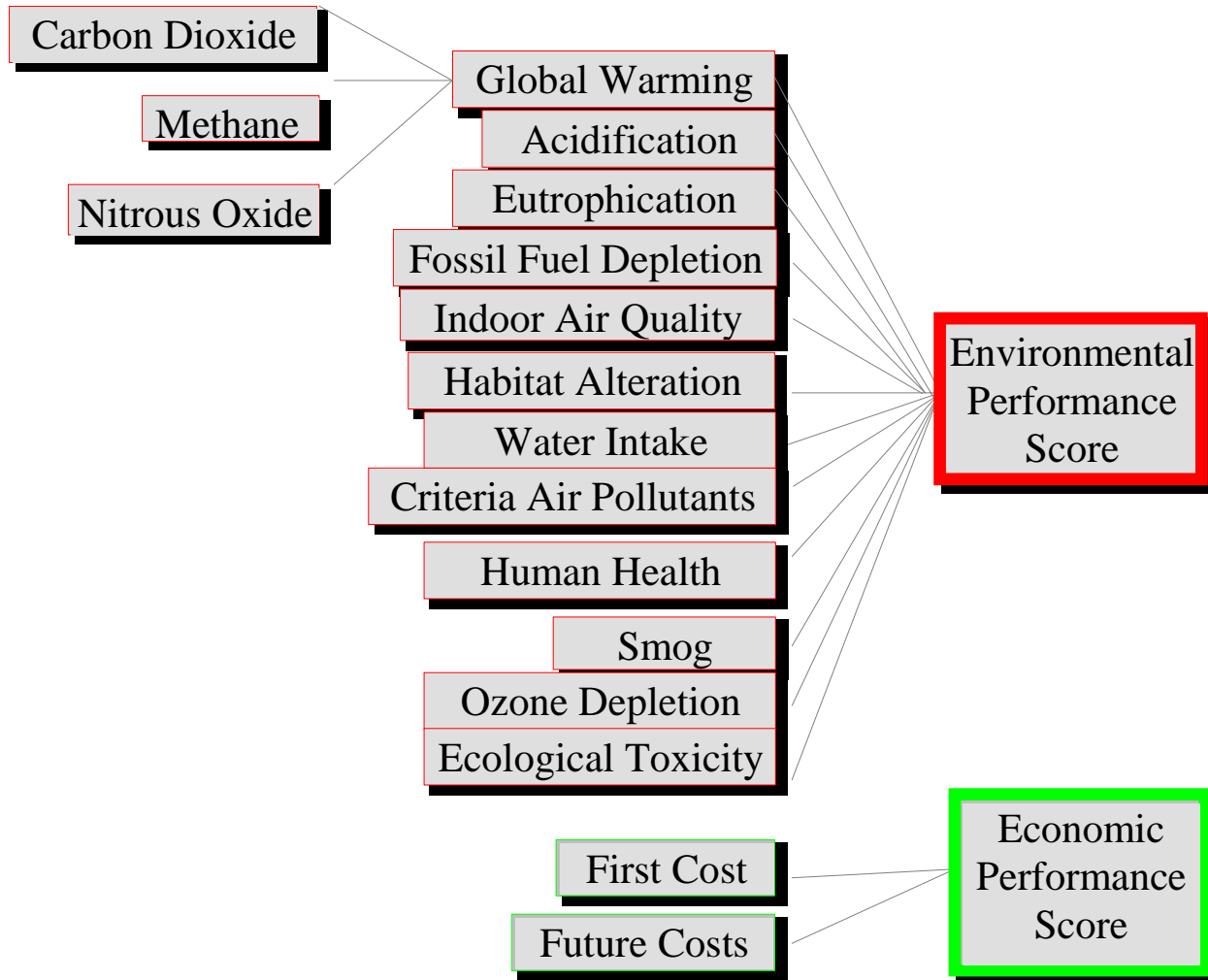
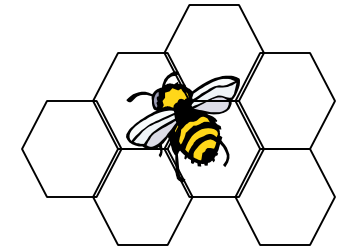
## 1. Biobased Content

- a. products must be manufactured with raw materials or wastes from domestic agricultural production – farming, ranching, forestry, aquaculture
- b. minimum content
  - by category/subcategory
  - verified by ASTM methodology –  $^{14}\text{C}$  dating

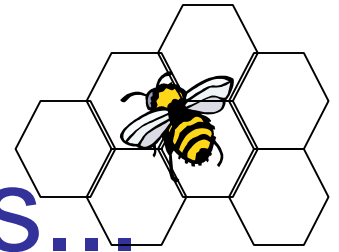
## 2. Performance and Manufacturer Specifications

## 3. Environmental Performance/Life Cycle

- a. National Institute of Standards and Technology “Building for Environmental and Economic Sustainability (BEES)” program



# For Free BEES Resources...



[www.bfrl.nist.gov/oae/bees.html](http://www.bfrl.nist.gov/oae/bees.html)

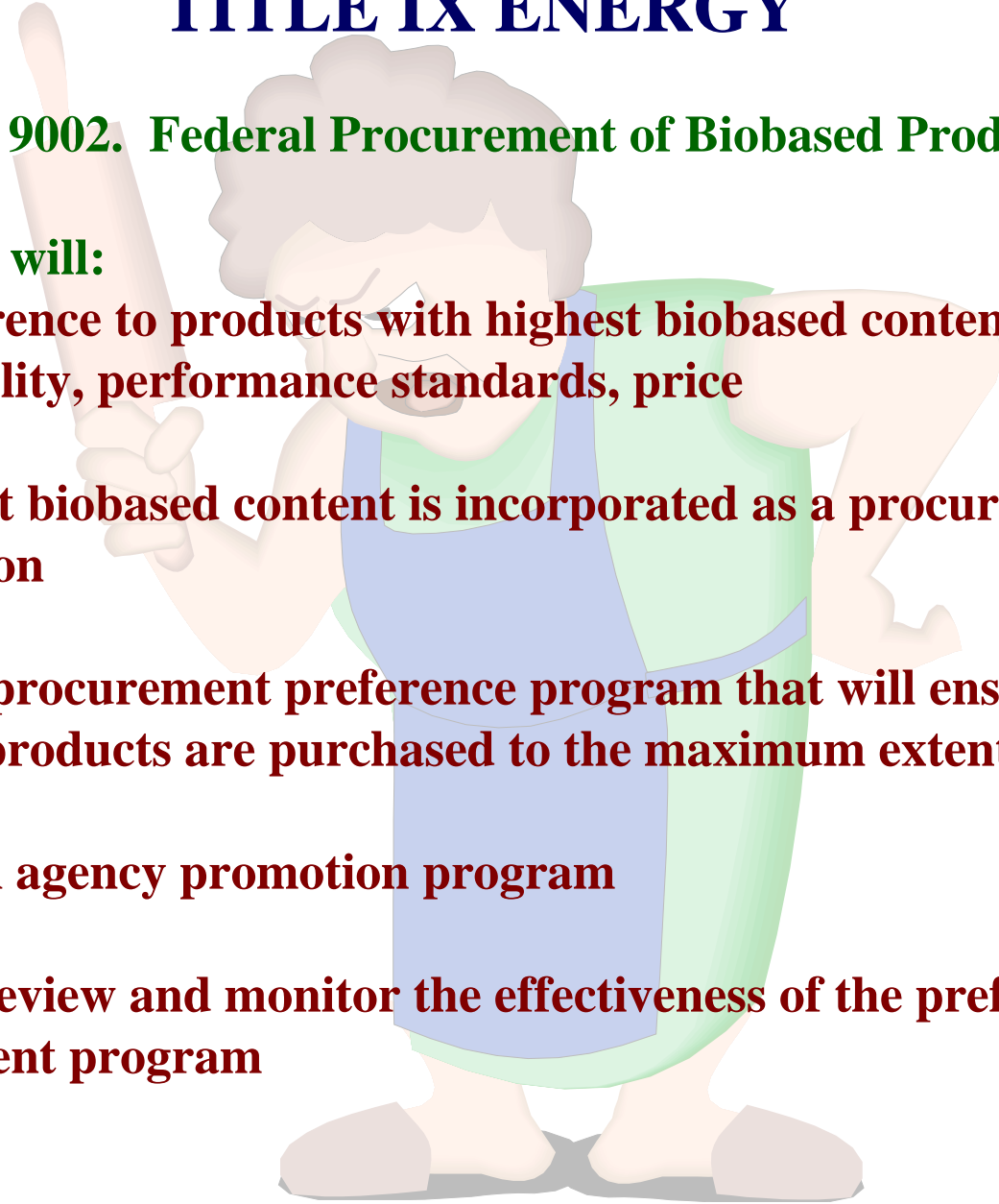
- Click “Download” for BEES 3.0
- Click “What’s the Buzz” for new BEES reports
- Click “BEES Please” to submit product data

# TITLE IX ENERGY

## Section 9002. Federal Procurement of Biobased Products

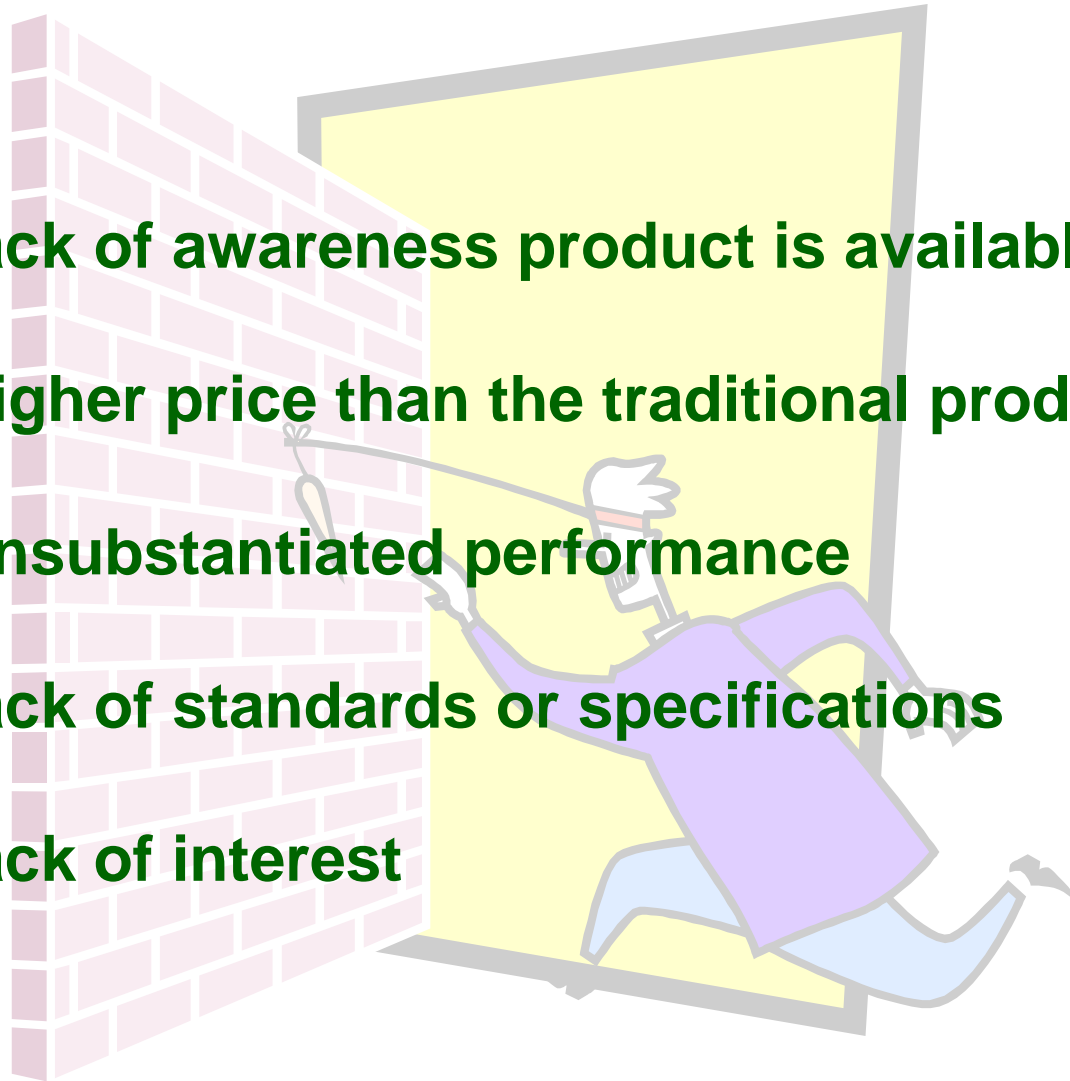
### Federal Agencies will:

- ✓ give preference to products with highest biobased content relative to availability, performance standards, price
- ✓ ensure that biobased content is incorporated as a procurement specification
- ✓ develop a procurement preference program that will ensure biobased products are purchased to the maximum extent practicable
- ✓ develop an agency promotion program
- ✓ annually review and monitor the effectiveness of the preferred procurement program



# OBSTACLES TO COMMERCIALIZING NEW PRODUCTS

- **lack of awareness product is available**
- **higher price than the traditional product**
- **unsubstantiated performance**
- **lack of standards or specifications**
- **lack of interest**



## **Title IX Energy**

**Section 9002. Federal Procurement of Biobased Products addresses obstacles to new products entering the marketplace:**

- ↻ **market acceptance/awareness – list of products**
- ↻ **cost competitiveness - procurement preferences, economies of scale; LCC evaluations**
- ↻ **validated performance – demos, new standards and specs**

# **FARM SECURITY AND RURAL INVESTMENT ACT OF 2002 Title IX Energy**

**Promotes technology transfer of the public investment in R&D  
to address environmental and agricultural issues**

- ↻ creates market push and pull**
- ↻ new emphasis for agricultural research = new educational  
and career opportunities**