



Association of Natural Resources  
Extension Professionals

# Natural Resources Extension Programs and Impacts

## *Natural Resources and Business*

**Increasing Virginia's Forest Industry Competitiveness** – Virginia Tech's "Virginia Forest Industry Competitiveness Program" increases the competitiveness of the \$25 billion Virginia forest products industry through educational programs, materials,



and onsite evaluations. Its goal is to improve the manufacturing efficiency and utilization of the state's forest resources, increasing market opportunities, and increasing employment. In 2010 over 2,500 individuals attended courses on how to improve their forest products business, resulting in the creation of over 100 new jobs and the creation or expansion of more than 25 companies. **Contact:** Dr. Robert Smith, Associate Dean for Engagement, College of Natural Resources and the Environment, Virginia Tech; phone: 540-231-7679; email: [rmith4@vt.edu](mailto:rmith4@vt.edu).

**Woody Biomass for Energy in Florida** – Biomass, and particularly woody biomass, is getting a lot of attention as an energy resource, but there are potential environmental and social challenges. University of Florida Extension developed a regional resource and training program to help forestry, energy, and

community leaders work together to share information about woody biomass for energy. This included conducting 26 economic analyses, producing 16 fact sheets, and developing a community forum protocol. In Gainesville, Florida Extension ran seven community forums where the public could ask questions of a panel of experts and submit their opinions on a survey – what they would be willing to approve and what features they felt most strongly about. Extension assembled the responses and wrote a report to the city commission, reporting that people didn't mind using trees if they knew they were being grown and harvested sustainably. The city commission passed a regulation on sustainable forest resources, then approved a bid to build a woody biomass facility. Woody biomass facilities have been created in Oklahoma and Idaho using this program as a model for their outreach efforts. **Contact:** Dr. Martha Monroe, Professor and Extension Specialist, University of Florida; phone: 352-846-0878; email: [mcmoroe@ufl.edu](mailto:mcmoroe@ufl.edu).



## Oregon Puzzle Manufacturer Solves Supply

**Puzzle** – A wooden puzzle manufacturer contacted the Oregon Wood Innovation Center (OWIC) with Oregon State University Extension requesting information on potential sources of supply for producing his product. One challenge he had was related to burning during laser cutting. OWIC faculty contacted several hardwood plywood manufacturers to determine which products were best suited to this firm's needs. They learned that metal 'glitter' was used by these companies to add to their adhesive to serve as an identifier; company A might use green glitter, company B red glitter, etc. They found that the metal glitter was the main cause of the burning during laser cutting. Hence, the company needed to request 'glitter-free' panels. The puzzle manufacturer is now purchasing its materials from an Oregon hardwood plywood firm - a market worth \$100K per year. **Contact:** Scott Leavengood, Director, Oregon Wood Innovation Center, Oregon State University Extension; phone: 541-737-4212; scott.leavengood@oregonstate.edu.

## Trees Mean Energy in Minnesota –

As some energy sources become limiting and expensive, trees can be used to produce cellulosic ethanol and other forms of energy. Hybrid poplar yields about 3,600 gallons of ethanol per acre in eight to ten years. A University of Minnesota Extension Agroforestry Educator established test plots to evaluate tree species and management practices to boost those numbers. They then taught landowners how to raise these species for the emerging biomass market, an important step in creating a pipeline to for this new energy source. Another important step will be conducting research on the fuel's potential and performance in commercial settings. Extension has installed a biomass gasifier that converts biomass from wood and other materials into biogas for a natural-gas substitute. This will help identify appropriate feedstocks so land-

owners can grow the trees that will someday power Minnesota's energy needs. **Contact:** Diomy Zamora, Extension Agroforestry Educator, University of Minnesota Extension; phone: 612-626-9272; email: zamor015@umn.edu.

## Mississippi's Forest Industry Impacts Quantified –

Mississippi State University's Forestry Extension program has documented the impacts of forestry and forest industry on a county-by-county basis, bolstering support for an important resource and industry. These data are presented through a series of web pages accessible at <http://msu-cares.com/forestry/economics/counties/index.html>. **Contact:** James E. Henderson, Extension Assistant Professor, Department of Forestry, Mississippi State University; phone: 662-325-0754; email: jhenderson@cfr.msstate.edu.



## Woody Biomass from Missouri's Family Forests –

University of Missouri Extension Forestry saw the need for education and demonstration of biomass production principles for Missouri's family forest owners. Working with the University's Energy Plant procurement team on a wood energy project, Extension developed the contract language for wood chips

coming from commercial harvesting operations to ensure a sustainable supply. Key elements include: (1) a written forest management plan must be in place, (2) the harvest must follow voluntary state woody biomass harvesting guidelines, (3) a forester must sign-off on the harvest, and (4) random, third-party audits of harvest sites must be done. These will be used for education of family forest owners on biomass-related forest management and harvesting activities. **Contact:** Hank Stelzer, Forestry Extension Specialist, University of Missouri Extension; phone: 573-882-4444; email: stelzerh@missouri.edu.

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