

Wells: Build on forestry with home-grown industry

By Barbara Wells - Guest Columnist

Reeling from the recession, and states across the Southeast are among the hardest hit. In South Carolina, the unemployment rate is the sixth-highest in the nation, which reflects a regional trend, as jobs across several sectors — from construction to manufacturing — continue to diminish.

When building jobs for the future, we should look to one of our past successes — forestry. The forest industry has led our manufacturing economy for decades, generating billions of dollars and thousands of jobs across our region. Trees are the Southeast's most valuable agricultural crop, providing raw materials for products ranging from fiber for paper to cellulose for high-definition television and, increasingly, for renewable energy. In South Carolina alone, forestry generates more than \$17 billion annually and employs 36,000 people. Studies show that every job created in forestry generates another two to three jobs in related sectors for a total impact of nearly 90,000 jobs.

However, this is an industry in need of renewal to restore and grow jobs and to protect a uniquely valuable resource: the tree. Global demand for wood, fiber and energy is increasing at an exponential rate, expected to double by 2050 according to United Nations estimates. At current levels of production capacity and supply, we cannot possibly meet this demand. Although we enjoy an abundant supply in South Carolina today, growers are planting fewer trees than at any time in the past 30 years. At the same time, forest lands are increasingly lost to urban development, and natural hardwood acres have become more difficult to harvest.

It is against this backdrop that ArborGen, a Summerville-based forest biotechnology company, is leading the way forward. At ArborGen, the world's largest provider of tree planting stock, scientists have developed technology to enable production of a highly productive tropical eucalyptus species — one of the world's fastest growing hardwood species and an ideal source of biomass — to be grown commercially in the United States.

The ability to grow eucalyptus as a crop would be a ground-breaking development for forestry, as the United States is facing a critical shortage of supply from hardwood trees. Because most hardwoods grow slowly and are notoriously difficult to cultivate, the forestry industry has never found an acceptable species to grow as a crop. Eucalyptus has been the frontrunner as a potential hardwood crop for years but has been limited geographically because of its intolerance to cold. What we are bringing to market is a hybrid that delivers greater per-acre productivity with more cold tolerance, and a plant that provides a stable supply of high-quality fiber for the pulp and paper industry and more biomass for renewable energy.

Through biotechnology, we have a freeze-tolerant eucalyptus developed in South Carolina to grow along the Gulf Coast. Because it is a hybrid that already has difficulty self-producing and it has a pollen-control technology that significantly limits the fertility of the plant, there is little concern that this tree could be invasive.

Eucalyptus is precisely the crop we should harvest because it allows us to grow more wood on less land, addressing our hardwood supply concerns. Eucalyptus would position our region to produce large quantities of biomass to boost renewable energy development and spur economic development. The S.C. Forestry Commission says that a fully developed biomass industry would increase the annual economic impact of forestry in our state by \$800 million.

ArborGen is seeking regulatory approval from the U.S. Department of Agriculture for its freeze-tolerant Eucalyptus, which is currently in field trials in seven Southern

states. If deregulated, this tree will revolutionize the timber industry, grow the local economy, preserve existing jobs and create new jobs. Our tree is one solution to meet increased demand for fiber, to meet renewable energy and energy security mandates and to mitigate climate change. ArborGen is proud to call South Carolina home, and we look forward to contributing to our state's economic growth.

Dr. Wells is president and CEO of ArborGen.