May 2010

Briefing Paper on the SRS Bioenergy Strategy

- Scientists participating in the SRS 's *Southern Research Station Bioenergy Science Team,* under the leadership of Bob Rummer, have met twice in the last six months. The group first met to discuss the framework of the SRS Bioenergy and second to review past and ongoing relevant research and then to develop larger, multi-RWU projects.
- The Science Team developed the following statement …*"We envision a future where biomass and bioenergy utilization from southern forests is part of a dynamic and sustainable forest sector that includes private landowners, forest managers and resource professionals, forest industry, forest-based enterprise, and energy producers. Southern forests are the wood basket of the Nation and provide a full range of forest values and uses to meet the needs of a society that is connected to forest systems."*
- The rapid development of new biomass and bioenergy utilization presents challenges and opportunities for southern forests. To meet the need for scientifically-based action and response the SRS develops and delivers knowledge that:

    1) **Builds on what we know.**

    2) **Develops information about production systems and technology.**

    3) **Develops Knowledge about the environmental and ecological outcomes associated with biomass recovery and utilization.**

    4) **Develops knowledge about value structures of biomass.**

    5) **Delivers information through effective technology transfer.**

- The Science Team identified five areas of work: synthesis (for which we have extensive information from many decades of research), analysis of production systems and technology (feedstock and conversion), environmental outcomes (impacts to water, soil, nutrient s, wildlife), economic and policy issues, technology transfer, and social issues (public acceptance and social license).
- The Science Team then identified two cross-Station projects that build on our expertise and research and will help position FSR to provide major contributions to the National debate on what role wood should play in our renewable energy portfolio.
- The first project will develop Science-based Biomass Removal Guidelines (similar to BMP's but more comprehensive). The issue our scientists will address is how much biomass can be sustainably removed and provide management strategies to mitigate any negative impacts. The approach will be in part a synthesis of existing knowledge, a use of FIA to determine how much biomass is removed and how much residue remains on stands, and to identify key and then conduct research where there are knowledge gaps.

- The second project is titled Purpose Grown Wood (formerly known as Short Rotation Woody Crops) and will involve the whole Science Team and draw other expertise from SRS scientists that are currently not participants. The main issue this project will address is to determine how land owners in the South can sustainably provide biomass from the southern landscape. The focus will be on Piedmont and Coastal Plains sites since economical harvesting systems do not function in the mountainous areas of the region because of the topography. This project will be developed to compete for funding from the USDA/DOE Biomass RFP (up to $7 million is available) due this summer.
- Les Groom is the leader of the National Forest Service Research Bioenergy Team. The first Summit Meeting of this National Team meet in Washington DC in April 2010.This group identified how all the Stations, and Forest Products Lab and IITF should be working together and what the focus, objective, outcomes and impacts of a national project would be. In brief summary they discussed identifying how we should grow wood for energy and how we should get the wood out of the forest, conversion technology, and how to develop information and tools for decision-making.
- The SRS website on bioenergy can be found at http://www.srs.fs.usda.gov/bioenergy/.