An Update on Agroforestry

By: John Munsell, Virginia Tech

In June 2011, Kathleen Merrigan, Deputy Secretary for the US Department of Agriculture and architect of the "Know Your Farmer, Know Your Food" program, personally unveiled a strategic framework to advance the science and adoption of temperate agroforestry. The framework was developed by an interagency team over the course of a year and is available at: http://www.usda.gov/documents/AFStratFrame_FINAL-lr_6-3-11.pdf. On the whole, it positions agroforestry as a critical piece in advancing local and regional food, fiber, and energy systems and spurring economic opportunities. The framework calls for integrating agriculture and forestry. In doing this, it is possible to build sustainable and highly productive land management systems that are buffered because of product diversity and also provide wildlife habitat, protect water resources, improve air quality, sequester carbon, and ensure recreational and cultural opportunities.

Agroforestry? It is defined as the deliberate combination and management of trees, crops, and livestock to enhance and diversify production and improve conservation. Agroforestry is not accidental or singular, but intentional and integrative. It is not Christmas tree plantations or cattle wandering through a forest. Rather, it is the integration of multiple crops on the same landscape, all of which are managed together over time in an intensive fashion. So in line with the distinction above, agroforestry would be the purposeful management of both cattle and tree plantations on one plot of land. Complex? Yes, but if the right crops, trees, and livestock are used the system as a whole can be highly productive over time.

Five specific practices are typically associated with temperate agroforestry. Windbreaks are rows of trees that provide shelter to crops and livestock and can positively alter microclimates to improve production. Agroforestry riparian buffers consist of trees, woody shrubs, and grasses next to water bodies and are actively managed to produce crops according to conservation guidelines. Silvopastures integrate grazing and forest stand management, which can be achieved by modifying an existing stand or planting and tending trees in a pasture-based system. Forest farmers cultivate and harvest non-timber forest products in wooded areas, which can require both agricultural and forestry practices to establish and tend the non-timber crop. And alley cropping systems are designed to grow produce between rows of trees. For more details on each practice, please visit the US Department of Agriculture's National Agroforestry Center website at http://www.unl.edu/nac/index.htm.

This issue of Virginia's Forest Landowner Update focuses on two applications of agroforestry. In keeping with the newsletter's "You Ain't From Around Here" series,

Marrisa Jager covers the use of agroforestry to control Chinese privet and other invasives. Matt Brinckman provides an overview of silvopastures, a much-discussed agroforestry practice in the eastern US. While not in this issue, Katie Trozzo and others describe agroforestry riparian buffers that use fruit and nut trees that are native to Virginia (see the Virginia Forest Landowner Update Volume 25 No. 1, Winter 2011 at: http://bit.ly/uSth6w). Additional information can be found in the 2009 spring issue of *Virginia Forests*, a publication of the Virginia Forestry Association, which was titled Agroforestry in the Commonwealth. Also, the University of Missouri's Center for Agroforestry maintains a useful website that is worth a visit (http://www.centerforagroforestry.org/).

Lastly, agroforestry workshops and training opportunities, in conjunction with Virginia State University's new forestry Extension Specialist, Greg Frey, are on the horizon in Virginia. Stay tuned to future editions of this newsletter, as well as the Events Calendar on the Virginia Forest Landowner Update website (www.cnre.vt.edu/forestupdate) for upcoming programs.

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