

## **Monday, August 18,2008**

### **Developing Alternative Energy Crops and Systems Tour**

Diversifying the suite of crops and cropping systems is a key to the economic and environmental sustainability of bioenergy feedstock production. This tour will highlight a number of the possibilities under study on farmland in Iowa. The first leg of the trip will focus on combining riparian and field border conservation practices with biomass production and wildlife habitat improvement. A driving tour will be taken along 9.7 kilometers of continuous riparian multi-species buffer strips using different designs on 9 different private farms in the Bear Creek National Restoration Demonstration Watershed (<http://www.buffer.forestry.iastate.edu/HTML/demosites.html>). Buffers vary from 3-18 years of age. Plantings include poplar hybrids, silver maple, green ash, a variety of shrubs and native grasses, and a high yielding switch grass selection. Lunch will be served at the Risdal Farm, the first planting site and official visitor site for the buffer. Here participants can take a guided or unguided tour of a number of buffer components. An information kiosk provides a one-stop overview of the project for those who want to do less walking.

The afternoon will include 3 stops near Ames and Iowa State University. The first will be an overview of extensive research on conventional and alternative agricultural energy crops and cropping systems including systems work on crop rotations, perennial cover crops, relay-cropping, corn stover production; and the alternative crops of sweet sorghum, kenaf, burcolver, triticale, switchgrass, big bluestem, eastern gamagrass, Indian grass, and miscanthus. The second stop will be a preview of the New Century Farm being developed by the university (<http://www.extension.iastate.edu/Bioeconomy/NewCenturyFarm>). This complex will include facilities for both fermentation and thermochemical conversion research surrounded by energy crop research on such concepts as the use of biochar and mixed herbaceous and woody plantings. The last research stop will be at a first-year coppice regrowth of hybrid aspens that is expected to produce some of the highest average annual biomass yields yet achieved with very low energy inputs. A stop will be made on the return trip for participants to eat dinner at their own expense while visiting about the experiences of the day.

Tour duration: leave hotel at 8 am, arrive back to hotel at 9 pm.