CHALLENGES ASSOCIATED WITH SHORT-ROTATION BIOFUEL PLANTATION ESTABLISHMENT IN THE LOWER MISSISSIPPI ALLUVIAL VALLEY

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The development of biofuel synthesis technologies has led to increased interest in woody crops grown specifically for energy production. These woody feedstocks typically involve fast-growing species (e.g., *Salix* spp., *Populus* spp.) planted at high densities using short rotations and intensive cultural practices like weed control and fertilization. Under ideal conditions, this type of system can produce 10+ dry tons/ac/yr, which is substantially higher than the 2.5 to 4 dry tons/ac/yr produced by pine plantations in the southern United States. Many of these plantings are projected to be established on lower quality agricultural lands. Recent attempts at establishing these plantations have highlighted some of the challenges (and expectations) that landowners will need to overcome in order to achieve levels of production that are financially attractive. This paper will address some of the pitfalls and hurdles that need to be overcome before woody biofuel plantations will become widespread.

KEY WORDS: short-rotation woody crops, SRWC, bioenergy plantations, plantation establishment

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