

Reclamation Experiments on the Allegheny Front: The Push for Bio-Energy, Habitat, and Timber¹

Bart Caterino*², Jamie Schuler, Shawn Grushecky, Jeff Skousen

Abstract: Six hectares of multi-purpose reforestation plantings were established on a surface coal mine near Mt. Storm, Grant County, West Virginia. The site was prepared in accordance with the Appalachian Regional Reforestation Initiative (ARRI) Forestry Reclamation Approach (FRA). Three hectares were planted with mixed timber species (northern red oak, sugar maple, red maple, black cherry, and red spruce). The remaining three hectares were planted with shrub willow for bio-energy, nut producers (hybrid chestnut, hybrid hazelnut, Allegheny chinquapin,) for bio-fuel production, sugar maple for sap production and white pine for screening provenances ranging from Georgia to Pennsylvania. After two growing seasons, biomass has been quantified for the willow crop, while seedling survival has been monitored for the other objectives. The project objective was to establish tree cover that incorporated both short-term products (bio-energy feedstocks) as well as long-term timber species to improve soil and water conditions, increase carbon pooling, and produce valuable crops. We have created a demonstration area that highlights various species and deployment strategies. The intent is that our model will lead to increased reforestation of abandoned mine lands and foster new employment opportunities for West Virginia.

Additional Key Words: reforestation, short rotation coppice, carbon capture

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² Bart Caterino, MS Candidate, Forestry and Natural Resources, West Virginia University, Morgantown, WV 26506; Jamie Schuler, Professor, Forestry and Natural Resources, West Virginia University, Morgantown, WV 26506; Shawn Grushecky, Professor, Forestry and Natural Resources, West Virginia University, Morgantown, WV 26506; Jeff Skousen, Professor, Plant and Soil Sciences, West Virginia University, Morgantown, WV 26506.