

State University of New York, College of Environmental Sciences and Forestry (SUNY – ESF) releases new Economic Analysis Tool for Willow Short-Rotation Coppice for Wood Chip Production

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Short Rotation Woody Crops (SRWC) is being developed as a sustainable source of biomass for the production of bioenergy, biofuels and bioproducts. SRWC are fast-growing, hardwood species with the ability to regrow after each harvest (coppice). Shrub willow is an emerging SRWC for North America that has been studied for more than then 20 years at the State University of New York College of Environmental Science and Forestry (SUNY-ESF) and over 30 years in Europe. The shrub willow cropping system that has been developed involves establishing willow on marginal soils and growing it with low labor, machinery, fertilizer, or herbicide inputs relative to traditional agricultural crops. Besides providing biomass, the use of shrub willow crops can also provide an array of environmental benefits such as improved soil and water quality, reduced CO₂ emissions, and enhanced biodiversity. The economic performance of SRWC is a key to their widespread deployment. In order to facilitate assessments of the economic potential of shrub willow crops, SUNY-ESF has developed a user friendly budget model, EcoWillow v 1.0 (Beta).

EcoWillow v.1.0 (Beta) can be downloaded free-of-charge from the internet (Hwww.esf.edu/willowH) and should be useful for farmers, land owners, agricultural extension workers, and project developers. The budget model allows users to calculate how yield, management options, and a variety of cost factors influence the cash flow and internal rate of return of willow biomass crops. EcoWillow v.1.0 (Beta) allows the user to vary input variables and to calculate cash flow and profits throughout the entire production chain from site preparation and crop establishment to the delivery of wood chips to an end user. EcoWillow v.1.0 (Beta) runs in Microsoft Excel 2003 and consists of a tutorial sheet explaining the use of the model and nine other worksheets including a Welcome sheet, Input/Output sheet, four sheets with output graphs, and three sheets with submodels on planting, harvesting, and transportation costs. For more information, contact Timothy .A. Volk, tavolk@esf.edu; +1 315 470 6774.



Figure 1: Welcome Sheet of the EcoWillow v 1.0 (Beta) economic model.