SHRUB WILLOW

Fact Sheet Series

ESF

Renewable Energy • Rural Development • Environmental Benefits

Willow Bioenergy in New York State

Willow in New York State

Decades of research on shrub willow by SUNY-ESF and partners has advanced the crop towards a viable, economically sustainable industry. As of 2015, there are 1,200 acres of willow bioenergy crops in New York State. Production is spread across three counties in northern New York, and fields are clustered around two end-use facilities owned by ReEnergy Holdings LLC. ReEnergy has contracted with growers to purchase all willow biomass produced on this land for a period of 11 years under the USDA Biomass Crop Assistance Program (BCAP), and is blending the willow with forest biomass to produce renewable electricity and heat.

A field of one-year-old willow crops in New York State

The first harvest of these crops occurred in 2013 and produced about 2,500 tons of woodchips from 100 acres of land. This biomass feedstock was utilized by ReEnergy to produce about 1,400 Mwh of electricity, enough to power 130 homes for an entire year. Important feedstock properties of the delivered willow (such as ash and moisture content) were similar to forest residues and suitable for blending these two feedstocks, meeting end-user specifications. By 2016, three to four hundred acres of willow will be harvested annually, and this number will increase as more acreages are established. Specialized equipment for planting and harvesting willow is available through the NEWBio equipment access program, and SUNY-ESF is providing outreach and extension services to current and prospective growers and other stakeholders.

USDA BCAP

The willow industry in New York was recently catalyzed by the USDA Biomass Crop Assistance Program (BCAP), which helps growers overcome some of the challenges of growing new bioenergy crops like shrub willow. BCAP is designed to improve domestic energy security, reduce the greenhouse gas emissions that cause climate change, and create opportunities for rural development. BCAP provides partial establishment grants for some of the upfront costs of planting willow, as well as annual incentive payments based on soil conservation rates. BCAP also successfully paired producers with an end user in ReEnergy, ensuring a stable market.

Willow chips are mixed with forest residues at ReEnergy

BCAP is funded through the United States Farm Bill. For the latest information on the availability of BCAP funding to plant willow crops in New York State, please contact The Willow Project at SUNY-ESF by phone or email, or visit our website.

The Willow Project at SUNY-ESF

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The Northeast Woody/Warm-Season Biomass Consortium

www.newbio.psu.edu

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