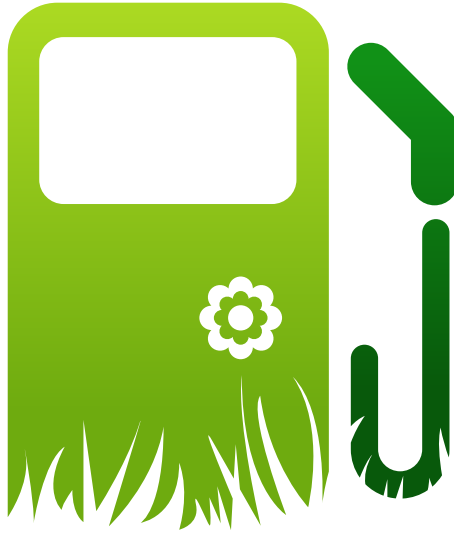


In the not-so-distant future,

PERENNIAL ENERGY GRASSES

and crop residues may be used to make advanced liquid biofuels for transportation.



With current technology, renewable biomass can be used to heat buildings and generate electricity.

Growing energy grasses to be used for heat and power can:

- Reduce carbon emissions
- Protect soil resources
- Improve water quality
- Provide wildlife habitat
- Increase farm income
- Promote sustainable economic development



To learn more or participate in the **LOCAL BIOENERGY INITIATIVE**, please visit www.agwatershed.org or contact AWI at (217) 877-5640 or info@agwatershed.org



AWI's mission is to conduct research and educational programs on practices and policies that improve water quality, maintain or restore ecosystem health, and conserve and manage land and water resources in agricultural watersheds.

Financial support for the Local Bioenergy Initiative is provided by the City of Decatur, the Lumpkin Family Foundation, and other contributors. AWI is a 501(c)(3) nonprofit organization. Contributions are tax deductible.

The Upper Sangamon Watershed city-farm partnership, with City of Decatur financial support, has received national recognition as a model for cooperative source water protection. For information about local programs to protect Lake Decatur, please contact AWI or the Macon County Soil & Water Conservation District, (217) 877-7045.

AGRICULTURAL
WATERSHED
INSTITUTE



local BIOENERGY initiative

A collaborative project to begin growing and using perennial energy grasses in Central Illinois.

ENERGY OUTPUT TO ENERGY INPUT RATIO FOR GRASS PELLETS IS ESTIMATED TO BE 14:1*

Creating a LOCAL BIOENERGY SYSTEM will take:

PRODUCERS – Farmers and landowners to grow energy crops

PROCESSORS – Entrepreneurs or co-ops to make biomass fuels

PURCHASERS – Individual or corporate customers to use biomass for heat or power

It will also take:

- Many goods & services – seeds, farm equipment, biomass stoves, architects & engineers, and more
- Multi-disciplinary research
- Sound public policy and programs
- Visionary corporate leaders
- Green energy investors
- Public and private support for the environmental benefits of energy crops

* Source: www.reap-canada.com

Perennial grasses grown for bioenergy

Switchgrass is native to much of the United States, including Illinois tallgrass prairies. Seed companies are breeding new varieties to increase yield.

Miscanthus is native to Asia. One high-yielding sterile hybrid is propagated through rhizomes. Grown for bioenergy in Europe but not yet widely available in the U.S.

Prairie polycultures including a variety of native prairie species can be grown for bioenergy and to enhance habitat and biodiversity.

environmental **BENEFITS**

Using biomass to replace fossil fuel produces many benefits. The value of ecosystem services is likely to be important to the economic viability of energy crops.

CARBON CREDITS

Energy crops store carbon in the soil and replace fossil fuels with “contemporary carbon.” Payments are available now for voluntary carbon offsets. Carbon credits are expected to increase in value in the future.

RENEWABLE ENERGY

Policies to promote power from wind, solar energy, or biomass can create a market for renewable energy credits.

SOIL, WATER, & HABITAT

These benefits depend on what is grown, where it is grown, and how it is managed. Future federal, state, local and private programs may support grass harvesting, compatible with conservation goals.

Photo reprinted with permission by FarmWeek



The Local Bioenergy Initiative is a project of the **Agricultural Watershed Institute**, in cooperation with participating individuals, agencies, and organizations.

The Initiative includes:

- Outreach and assistance to farmers and landowners that want to begin growing perennial energy grasses.
- Development and demonstration of landscape design concepts to optimize production of biomass and environmental benefits.
- Collaboration with entrepreneurs, businesses, agencies and organizations to develop markets for energy grasses and related ecosystem services.