

Is Switchgrass the Answer to Our Energy Needs?

The use of biomass for energy has the potential to greatly reduce greenhouse gasses. Biomass produces the same amount of carbon dioxide as fossil fuels, but returns only the amount of carbon dioxide that it consumed during its lifetime. Burning fossil fuels adds “new” carbon dioxide that has been buried for millions of years.

Corn is the “energy crop” that is used to produce most ethanol, but is not a practical solution to our energy problems. The production of corn for ethanol is already causing a global rise in the cost of food and is prompting farmers to convert forests to fields.

Perennial grass crops, such as switchgrass, could be an attractive alternative. Switchgrass is two to three times more efficient at producing ethanol than corn. Other advantages of switchgrass are that it doesn't require much irrigation or fertilizer, it grows well on land that is not suitable for traditional agricultural crops, and also serves as a habitat for wildlife. Growing grasses locally would have the added advantage of eliminating the need to consume energy for the transportation of the crops to the consumer.

Professor Stacy Bonos, a researcher at the Rutgers Center for Turfgrass Science, is identifying and breeding native perennial grass crops to be grown in the Northeast and Mid-Atlantic states. She is using state-of-the-art techniques that allow her to quickly hone in on varieties that will yield the most biomass.

As the nation converts to using grasses and other biomass materials for energy, Bonos' work will ensure that farmers in New Jersey and the surrounding region will have high-quality varieties of grasses to supply the local demand.

You can make a difference in enabling the Northeastern and Mid-Atlantic states to reduce its oil consumption by funding Dr. Bonos' research. Please contact The Office of Development at 732-932-9000, ext. 576 or development@sebs.rutgers.edu for more information.

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