

## Economics & Environment

### What is this technology?

An analysis of economic and environmental sustainability issues related to growing crops for ethanol production.



---

### What the analysis compares

- Three cropping systems – continuous corn, alfalfa-corn rotation, and continuous switchgrass.
- Annual farm-scale production costs, potential ethanol production, net energy balances, and environmental impacts.
- Comparison based on both normal and high crop yields as well as three crop pricing scenarios.

### Why we make these comparisons

- We want stakeholders and policy makers to step back and take a look at the bigger picture of economic and environmental sustainability.
- We understand the value of forages to the landscape and to soil and water quality; therefore, we want to find ways for forages to stay competitive in the new bioenergy era.

### A few conclusions

- There is no one best cropping system for biofuel feedstock production. Different crops are more or less desirable depending on the final goal of the producer and/or the general public.
- The alfalfa-corn rotation is nearly as profitable as continuous corn – with the added benefits of having less soil erosion and less nitrate leaching.

### Moving Forward

This research will be continued by gathering economic and production data from existing farms in Wisconsin to further develop and apply economic and environmental impact models and decision-making tools.

### Contact Information

Peter Vadas, Dairy Systems Scientist

U.S. Dairy Forage Research Center

608-890-0065; [Peter.Vadas@ars.usda.gov](mailto:Peter.Vadas@ars.usda.gov)

[http://www.ars.usda.gov/main/site\\_main.htm?modecode=36553000](http://www.ars.usda.gov/main/site_main.htm?modecode=36553000)