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Michigan's 4th Organic Food and Farming Reporting Session
Friday March 4, 2011
Kellogg Conference Center in East Lansing, MI
1:00 p.m.-5:00 p.m.
Sponsored by Michigan State University

Registration for Organic Posters by Graduate Students

Posters will be limited to 46" length x 46" width. These posters can be on past or on-going research or outreach that includes organic agriculture production and marketing systems.

This Application is due by ***February 10, 2011*** at 5:00 p.m. Send a PDF of your poster to include in the compendium by ***February 17, 2011***.

Name Sienna Tinsley
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Poster Title Potential for Perennial Grasses as an Organic Dual Forage-Grain Crop in Michigan

Which category does this information represent? Please √

	Organic Animal Management		Organic Fruit		Organic Soil Health
√	Organic Field Crops		Organic Marketing		Organic Vegetables
	Community Engagement		Outreach Programming		Economics

Please submit this completed application by ***February 10, 2011***.
Please submit a PDF of your poster no later than ***February 17, 2011.*** Email complete application to sorrone@msu.edu.
For questions call Vicki at (517) 353-3542 or (517) 282-3557.

Abstracts: (300 Words or Less) Include Title & Author(s)

Potential for Perennial Grasses as an Organic Dual Forage-Grain Crop in Michigan
Authors: Sienna Tinsley, Sieglinde S. Snapp, Steve Culman, Nikhil Jaikumar, and John Green

Annual winter wheat (Triticum aestivum L.) is a successful dual-purpose forage-grain crop in the southern Great Plai of North America (Redmon et al., 1995). Intermediate wheatgrass (Thinopyrum intermedium; IWG) is a highly successful perennial forage grass. Wheat breeding programs at Washington State University (WSU) and The Land Institute (TLI) are working to establish lines of perennial wheat by crossbreeding these two species. Additional work at TLI focuses on breeding a variety of IWG with improved levels of grain production, such that it could be a feasible dual-purpose forage-grain crop. We are exploring the possibility of using these perennial grasses as dual forage-grain crops in organic systems in Michigan.

This experiment has a full-factorial, split-plot design, with fall and spring planting as the main split treatment. The fal plots were planted Oct 13th, 2010 and the spring plots will be planted later this spring. Half of the plots in each of these planting groups were sown with perennial wheat and half with IWG. A forage crop will be harvested from half of these plots before stem elongation occurs. The rest will remain uncut until the fall grain harvest.

We will use estimates of leaf expansion rate during early growth, leaf area index (LAI), tiller density, and tiller recruitment rate to evaluate the vigor, weed competitiveness, and overall health of the plants under various treatments. Afte harvest, we will compare the quality and quantity of grain and forage produced under each treatment. Our ultimate goal is determine whether these species are practical for use in organic systems in Michigan and, if so, which planting time and cutting regime is the most advantageous.