



USDA-CSREES 2006 National Water Quality Conference

[Alternative Forage Production Systems for Organic Dairies](#)

Organic milk production has grown to almost 20 percent of total production in Maine. Sustainable production of high quality forages is a major obstacle. Controlling weeds in forage corn is difficult. A study has been initiated to evaluate an alternative cropping system that utilizes different planting timing and physical crop characteristics to potentially provide a nutritionally sound, cost effective, and weed competitive cropping system compared to a corn-hay based forage system. In this study, we compared a double crop production system (winter grains grown for silage followed by brown midrib sorghum sudan grass (BMRSS) or spring barley followed by BMRSS) to organic field corn production. Spring barley is planted in late April or early May while the soil is still cold and most annual weeds have yet to start growing. Barley drilled in narrow rows reaches canopy closure prior to much annual weed growth. Following harvest in July, BMRSS is drilled into warm soils in narrow rows. Again, growth of BMRSS should be competitive with annual weeds. Finally, after BMRSS is harvested in September, winter cereals can be drilled to reduce potential for fall annuals and provide soil cover. We found the alternative system to have significantly lower weed biomass compared to the best cultivated corn. Yield and forage quality of the alternative system was virtually equal to the forage corn in terms of biomass yield. Forage corn had higher energy and energy yield, but with different environmental conditions, the alternative system may be increasingly favorable. This work is being repeated in the 2005 – 2006 growing season.

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