

2014 CenUSA Switchgrass Bioenergy Feedstock Field Day

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Establishing Switchgrass

- Harvestable yields are typical in the planting year
 If the site grows dryland corn, it will grow switchgrass
 Plant 2 to 3 weeks either side of the optimum corn planting date
 No-till seed into soybean stubble is preferred or clean till & pack like for alfalfa)
 Spend money on quality certified seed & weed control
- Plant 30 PLS per ft² ¼" to 1/2" deep
 - Pre-emergent application of 1 qt. of atrazine plus 32 oz of Facet L/acre
 - Mow broadleaf weeds ~ the 4th of July, then spray with 1 qt./a of 2,4-D



CenUSA is supported by Agriculture and Food Research Initiative Competitive Grant no. 2011-68005-30411 from the USDA National Institute of Food and Agriculture.



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Liberty Switchgrass Facts

- Yields 7-8 tons per acre with no irrigation
- One round bale of Liberty switchgrass (1,400#) will yield 55 gallons of ethanol
- Liberty switchgrass produces 5.4 times more energy than it takes to grow and harvest
- Liberty switchgrass sequesters more than 1 ton of carbon per acre each year

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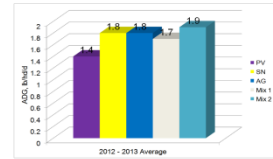


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Grazing Warm-season Grasses

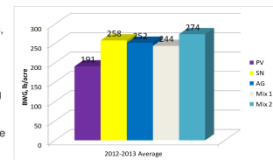
Background:

- What if I plant these feedstocks before there's a market?
- Evaluate livestock performance (ADG & BW gain/acre) for potential biomass feedstocks
- Switchgrass, big bluestem, indiagrass, & WS mixtures (Mix 1 = CenUSA LDM; Mix 2 adds switchgrass & little bluestem to LDM)
- Seeded 3 reps in 1-acre pastures in spring 2011
- Fertilized with 60# N/acre in spring of each grazing year
- Grazed w/ 2 or 3 animals/a for 69, 74, & 51 d in 2012, 2013, & 2014



In the first 2 years (2012 & 2013):

- Switchgrass is the least productive, big bluestem, indiagrass, & Mix 1 (LDM) are similar, & Mix 2 (AG, SN, PV, BC, SS) was most productive
- Trends were consistent across years (PV<AGSNMix1<Mix2)
- Appropriate management is critical
- Switchgrass performance would improve with timely grazing
- Grazing WS grasses provides revenue & mitigates risk for bioenergy
- @ \$2+ per pound, gross returns range from \$400-550 per acre
- WS grasses may provide dual use with appropriate mgt



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