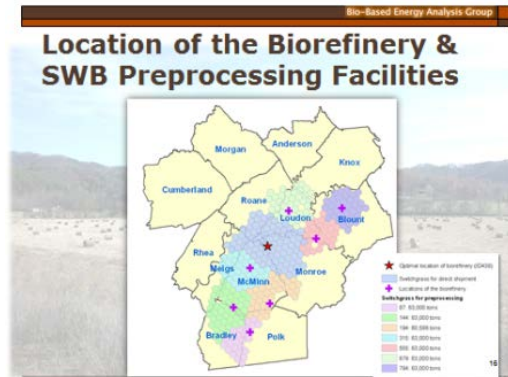


“Economics of an Alternative Preprocessing Technology in Switchgrass Supply Chain for Biofuel Production in East TN”

The system developed by Yu, Larson, Gao, and English evaluated ranged from conventional hay methods to the more capital intensive preprocessing options. Analysis was conducted to find out whether the potential savings in handling densified feedstock offset the investment in preprocessing facilities? This information was then used to identify the location minimizing the delivered cost of switchgrass feedstock for a potential commercial-scale biorefinery in East Tennessee. Systems included large round baler (5'x4'): 5.5 dry tons/hour harvest capacity, a large rectangular baler (4'x4'x8'): 12 dry tons/hour harvest capacity, and a forage chopper: 20 dry tons/hour harvest capacity. The satellite preprocessing facility was a bale densifier (Bale Tech 3) that produced 1.5 ton bale, had a 45 ton/hour throughput, and plastic wrapped the bale for storage. The study region was East Tennessee.

The study found that the stretch wrap baler technology combined with chopping harvest has the potential to reduce total logistic cost from the conventional hay methods. A cost savings of 12 to 18 cents per gallon of ethanol could be realized depending on whether the alternative was square or round bales, respectively.



For additional information see:

[Economics of an Alternative Preprocessing Technology in Switchgrass Supply Chain for Biofuel Production in East TN.](#)

Citation: Yu, T.E. (Presenter), J.A. Larson, Y. Gao, and B.C. English “Analyzing the Economics of an Alternative Preprocessing Technology in the Switchgrass Logistics System for a Biorefinery in East Tennessee.” Presentation (Session 3-C – Models and Metrics) at the Sun Grant Initiative National Conference, 2-5 Oct 2012, New Orleans, LA.