

UT Biomass “From Grow to Go” Field Day, 2011  
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Switchgrass is a native warm season perennial. Its potential usage as a dedicated energy crop is attractive to farmers because:

- fertilizer costs in Tennessee are based on replacement value and are low compared to other row crops
- no lime is needed at pH above 5.0
- grows quickly, once established, with minimal management
- produces a high yield (five to ten tons per acre)
- grows well on a variety of soil types
- has relatively low insect/disease pressure
- requires no specialized planting or harvesting equipment

Producers are interested in all these characteristics if viable markets become a reality and a contract is in hand.

The UTBI and Genera Energy presently have contracts with 61 producers growing 5000 acres on 320 fields within approximately 50 miles of Vonore, TN.

The University of Tennessee and the UTBI have partnered with farmers to produce switchgrass as a dedicated energy crop since 2005. Our experiences point toward selecting specific “Systems-of -Production” in order to obtain the highest probability for establishment success. When choosing a system-of-production which best suits your farm, consider the following variables:

- No-till or conventional tillage
- Grass and weed problems
- Eroded or smooth soil surface
- Field management history
- Equipment availability
- Experience in production agriculture
- Ability to implement timely management practices

It is important to plant high quality seed, accurately clean and calibrate your drill, set your drill for proper seed placement, and plan in advance for success.

Switchgrass establishment considerations:

- A drill with a small seed hopper is adequate for establishing switchgrass.
- No-till is preferred.
- Planting dates range from mid-March to mid-June.
- Earlier planting increases opportunities for soil moisture.
- Nitrogen applied the first year only increases competition.
- Plant shallow (one-quarter inch) but insure seed-to-soil contact.
- Plant when moisture is available with 6 pounds PLS seed per acre.
- Annual grasses become major establishment problems.
- Clip and remove grass and weed competition.
- Seed treatments may be beneficial.

Preferred “Systems-of-Production” include:

- Plant (no-till, or behind crust-breaking tillage) following wheat hay or wheat baleage
- Planting (no-till) into row crop residue with low Signalgrass or Crabgrass pressure
- Plant (no-till) following fall chemical control of cool season grasses
- Plant (conventional tillage) into a firm seedbed, quarter inch depth

