Establishing a Dedicated Energy Crop

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June 30 – July 1, 2009
Little Rock, AR
My Operations

- Two operations
  - Manage Stokely Farm
  - My Farm
- Approximate Farm Location
- Farm Size
- Farm Characteristics
- Farm Organization and Objective
- Relationship with TN Extension
Farm Organization and Objective

- Managed Farm
  - is owned by Mr. William B. Stokely, III
  - Reports to a vice president and CEO
  - Has accountants

- Both Farms Objective is to maximize profit
In Tellico Plains, TN on the edge of the Appalachians close to the North Carolina border.

Monroe is the 5th largest county in the state

Large area in national forest with some wilderness

Bear preserve in the County

Farm 100,000 + acres
Crops Grown
- Soybeans
- Wheat
- Corn
- Apples
- Switchgrass
  - 12 acres prior to contract
  - 122 acres in the first contract year
  - 86 acre in the second year
  - Total of 220 acres in switchgrass

Livestock
- Beef cow/calf
- Stocker operation
Relationships with Extension

- Historical
  - Long relationship with Extension
    - Farm has been contracted by agribusinesses to conduct plot field level experiments.
    - Farm hosted east Tennessee summer weed control tour for Extension for a long time.
Relationships with Extension

Historical

- Farm has cooperated with TN Extension as a testing area since 1982
  - Weed control work
  - Variety testing
  - Crop fertilization
  - Beef Cattle Production Demos
  - Vegetable crop weed control
Relationships with Extension

- **Historical**
  - Demonstration switchgrass production field, 2007
    - Done before Switchgrass was considered as a biofuels crop
    - Farm has hosted a number of tour groups from the US and other countries
  - Trip to West Tennessee to develop an understanding of production and harvesting techniques
    - Harvesting stories
      - Flat tires
      - Baler would not handle crop
      - Too much to put through baler
Relationships with Extension

- **Historical**
  - Attended informational meetings
  - Reluctance by individuals to accept facility
    - Truck Traffic
    - Odors from processing
  - Notion that this new venture might not work
    - Having a 12 acre field of switchgrass successfully established assisted farmers in deciding to participate
  - Extension grower meetings
What made Switchgrass right for us?

- Productivity on marginal Soil
  - 20 bushel soybeans
- Equipment required to grow switchgrass
  - Drill equipped with small seeder
  - Harvesting equipment
- Low risk contract offered by UT
- Assistance Extension provided in establishing a crop
- If switchgrass market did not evolve then soil would be improved
What Risks are THERE?

- Supply
- Market

- Plant was not and still is not established though construction is underway.

- Contract for three years had to cover costs of establishment and compete for land that was in crops at a time when high prices for those crops were present.
What Risks are THERE?

○ Supply
  ● Experiences gained in establishing Switchgrass.
    ○ Planning is critical to successful establishment
      ● Weed history
      ● Planter calibration
      ● Weed control
    ○ Moisture requirements
      ● not critical, but you do need some water
      ● More tolerant to drought conditions than other crops
What Risks are THERE?

- Did not know what marginal soils would yield
- How to harvest materials in excess of 5 tons per acre?
Contract Reduced Risks

- Set a per acre value that covered costs as well as opportunity costs. The contract established a safety net.
  - For example, the land that was selected to be planted into switchgrass was 20 bu. bean ground. In order to break even comparing profit from bean ground to $450/acre + seed – expenses, bean price would have to exceed $18/bushel.
  - Fuel clause that adjust the contract value upwards if fuel costs were higher during the year.
However

- Contract was good for 3 years and it paid for developing an asset to the farm and the region.
- Now I have an asset in the ground but we have to wait and see how the market develops.
- Prior to this initiative, people were worried about how many houses their land would grow and now they are thinking about growing an energy crop.