# Establishing a Dedicated Energy Crop

Kenny Hamilton Tellico Plains, Tennessee



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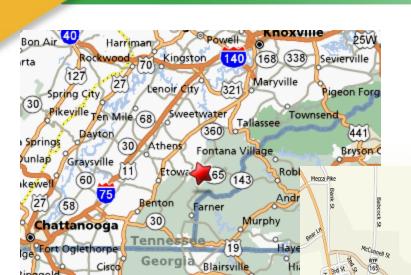


# My Operations

- OTwo operations
  - Manage Stokely Farm
  - My Farm
- OApproximate Farm Location
- **OFarm Size**
- **OFarm Characteristics**
- OFarm Organization and Objective
- ORelationship with TN Extension

# Farm Organization and Objective

- OManaged Farm
  - is owned by Mr. William B. Stokely, III
  - Reports to a vice president and CEO
  - Has accountants
- OBoth Farms Objective is to maximize profit



Cherrylog / Blue Ridge

## Farm Location

In Tellico Plains, TN on the edge of the Appalachians close to the North Carolina border.

Monroe is the 5<sup>th</sup> largest county in the state Large area in national forest with some wilderness Bear preserve in the County Farm 100,000 + acres



#### **Crops Grown**

- O Soybeans
- O Wheat
- O Corn
- O Apples
- O 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

# Farm Characteristics Livestock

- O Beef cow/calf
- Stocker operation

#### O Historical

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



#### O Historical

- Farm has cooperated with TN Extension as a testing area since 1982
  - OWeed control work
  - OVariety testing
  - OCrop fertilization
  - **OBeef Cattle Production Demos**
  - OVegetable crop weed control



#### O Historical

- Demonstration switchgrass production field, 2007
  - O Done before Switchgrass was considered as a biofuels crop
  - OFarm 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
  - OHarvesting stories
    - Flat tires
    - Baler would not handle crop
    - To much to put through baler



- O Historical
  - Attended informational meetings
    - OReluctance by individuals to accept facility
      - Truck Traffic
      - Odors from processing
    - ONotion that this new venture might not work
      - Having a 12 acre field of switchgrass successfully established assisted farmers in deciding to participate
    - OExtension grower meetings

# What made Switchgrass right for us?

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

### What Risks are THERE?

- **O**Supply
- **O**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?

## OSupply

- Experiences gained in establishing Switchgrass.
  - OPlanning is critical to successful establishment
    - Weed history
    - Planter calibration
    - Weed control
  - OMoisture 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

- OSet 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 breakeven 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

- O Contract was good for 3 years and it paid for developing an asset to the farm and the region.
- O Now I have an asset in the ground but we have to wait and see how the market develops.
- O 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.