Transition Steps

- Emphasis on growing alfalfa / grass hay
- Strong horse hay market
- Erosion concerns
- Major weed issues
  - First 3 – 5 years of transition

Benefits of Growing Legumes

- Root systems increase infiltration of air and water into the soil
- Tap roots break through soil hardpan allowing access to nutrients

Benefits of Growing Grass

- Rapid spring growth competes well with weeds
- Best crop to plant for erosion control
- Fibrous roots reduce frost heaving of alfalfa that is seeded with grass

Concerns About Raising Hay

- Best scenario – farm should contain livestock
- Soil test at least every 3 years if no livestock manure is applied to farm
- First choice – plant hay to fields with highest potassium levels

Rotation at LLOF

- Year 1 Oats or Winter Wheat / Red Clover
- Year 2 Corn
- Year 3 Soybeans
Year 1 Oats or Winter Wheat / Red Clover
- Fall seeded wheat
- Frost seed medium red clover in March
  OR
- Spring seeded oats
- Seed red clover with oats

Year 1 Oats or Winter Wheat / Red Clover
- Mow bad weed patches
- Hoe out or cut thistles
- Run straw through straw chopper
- Clip weeds in early September
- Chisel plow in late fall

General Tips on Weed Control in Oats and Wheat
- Sow as early as possible, especially oats
- Increase seeding rates a little higher than conventional rates
  – Especially for high test weight oats
- May need to use a rotary hoe or tine weeder if early weed growth is heavy
- Use clean seed only

Year 2 - Corn
- First pass – Field cultivator
  – Till in the moderate to shallow range
- Second pass – Field cultivator
  – Till in the shallow range
- Plant immediately after last tillage pass
- Don’t plant until soil temperatures have warmed up

Year 3 - Soybeans
- Disk corn stalks in late April
  – Early germinating weeds are killed off by disking
- Moldboard plow after next weed flush
  – Plowing buries many weed seeds

Year 3 - Soybeans
- Field is disked or field cultivated with drag harrow attached
- Ground is field cultivated immediately before planting beans to eradicate weeds
- Don’t plant until soil temperatures have warmed up
Year 3 – Soybeans – After Harvest

- Disk down ridges to level field
- Lightly field cultivate with narrow shank cultivator
- Sow winter wheat
- Drag field to cover exposed wheat
- Don’t do any fall tillage if sowing oats the following spring

Rotary Hoeing Corn or Soybeans

- First hoeing to take place 3-5 days after last tillage pass
- Adjust tractor speed and hoeing depth when entering a new field
- Second hoeing to take place 3-5 days after first hoeing

Row Crop Cultivation: Corn or Soybeans

- Usually cultivate 3 times
- Cultivate with Buffalo cultivator
- Disk hillers are used
- Cultivision mirror is used

General Tips on Weed Control in Corn & Soybeans

- Wait until soil warms up and dries out before tilling and planting
- Don’t plant right before a heavy rain is forecasted
- Destroy crop when weeds have overtaken it
- Timing is everything!

Suppressing Canada Thistle

- Field cultivate every 2-3 weeks in the spring time before crop is planted
- Mow thistles around entire farm before seed head opens
- Talk with neighbors and/or local authorities if problem is off the farm

General Tips on Weed Control in Corn & Soybeans

- Use clean seed only
- Plant a little heavier than intended to allow for loss of plants if needing to rotary hoe aggressively
- Don’t take on a full-time job
Suppressing Canada Thistle

Smother and Starve Approach

• Sow alfalfa or grass for 3 years or more
• Sow buckwheat in a light to moderate infested field
• Sow sorghum sudan grass in a moderate to heavy infested field