

A red tractor with a yellow harrow attachment is shown harvesting a field of tall, golden-brown switchgrass. The tractor is positioned in the middle ground, moving from left to right. The harrow attachment is yellow and has the name 'Discbine' visible on its side. The field is filled with tall, dense grasses that are being cut and turned over by the harrow. In the background, there are trees with some autumn-colored leaves under a cloudy sky.

Growing Switchgrass in Ontario

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Clinton, Ontario
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How We Got Started

Where We Are Now

- Near Clinton, Huron County
- Farm 2,800 acres in total
- Two major farms
 - One near Clinton on No. 8 Highway
 - One near Whitechurch on No. 86 Highway
 - Total of 345 acres of switchgrass, established spring 2006

The Dos and Don'ts of Growing Switchgrass

- The most risk-free crop a farmer can grow
 - withstands frost
 - withstands heavy rain
 - tolerant of drought
 - to date, we know of no moulds or fungus
 - it outruns weeds
 - this crop does not spoil in the field

The Dos and Don'ts of Growing Switchgrass

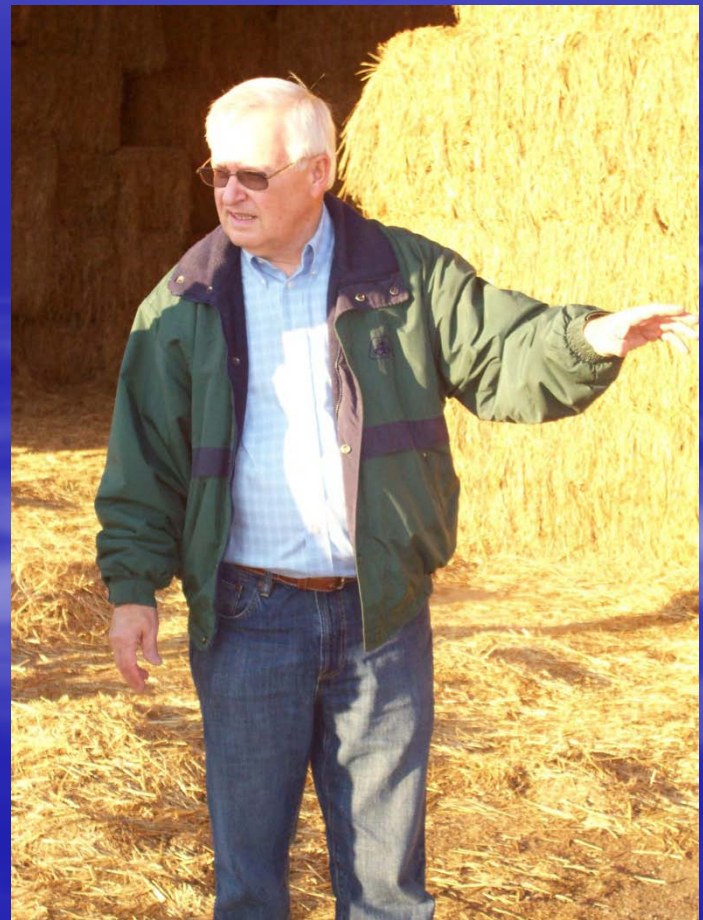
First-Year Establishment

- Field preparation
 - Standard farm equipment
- Seeding rates
 - Variety choices – Cave-in-Rock recommended for this area
 - Current research focusing on better-yielding varieties
- Cover crop
- Weed control (herbicides or mowing)

The Dos and Don'ts of Growing Switchgrass

Second-Year Management

- Weed control
- Fertilization
 - 50% yield potential



The Dos and Don'ts of Growing Switchgrass

Third Year – First Full Production Year

- Fertilization optional
- Herbicide free
- Yield
 - Full production: 4.0 – 4.5 tonnes/acre on land capable of producing normal yields of corn, soybeans, wheat



How to Harvest

- Standard farm equipment – balers, forage harvesters and discbines
 - Cut in late fall
 - Leave the swaths in the field over winter
 - 4- to 5-inch stubble
 - Much like swathing grain
 - Over-wintering swath changes the structure of the straw and it will not rot like other straw
 - Over-wintering improves the fuel characteristics (lowers chlorine, ash, phosphorus, potassium, nitrogen)
 - Harvest in April to early May
 - 45-day window of opportunity
 - Can use a baler or forage harvester
 - Beware of flat tires! Sharp stubble
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- A red and yellow forage harvester is shown in the middle of a field, harvesting golden-brown crops. The machine is moving from left to right, leaving behind neat rows of cut material. The background features a line of trees with autumn foliage and a bright blue sky with scattered white clouds. The overall scene is a typical agricultural landscape during harvest time.

Why We Like This Crop

- Perennial
- Grows on marginal soils
 - Does not grow in a duck pond!
 - Does well on lighter, sandy soils
- Prevents erosion
- Once established, it is good on hilly farms
- Environmentally friendly, sustainable crop
 - Wildlife-friendly (maintains biodiversity)
 - Carbon-neutral
 - If used for biomass fuel, the next crop re-captures the carbon that's released
 - Short carbon cycle compared to burning wood
 - Improves soil structure
 - How much still unknown (ongoing research)
 - Improves moisture-holding capability
 - Is field-tile-friendly



Storage

- Use covered storage
 - Bales are 7 to 8% moisture out of the field
 - Switchgrass is unique – if baled wet, it does not heat
- Use field storage (bale wrap)
- Old-fashioned straw stack





A wide-angle photograph of a vast, flat field of golden-brown grass, likely a prairie or steppe. The grass is tall and dense, filling the foreground and middle ground. In the distance, a line of trees with autumn-colored foliage (yellows, oranges, and browns) stretches across the horizon. The sky is a deep, clear blue, filled with numerous fluffy white cumulus clouds of varying sizes. The overall scene is bright and open, suggesting a clear, sunny day.

**I gave you the good, the bad ...
and the ugly begins now!**