



for a cleaner tomorrow

OFC Switchgrass Research Project



Update
Summer 2014

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Ontario Biomass Producers Co-op

Clinton Field Day, September 5, 2014

Growing Forward 2 



Canada 

Project Background

- OFC offered to share their research grant quota
- Successful OFIP grant application under OFC umbrella
- Project start in Spring 2014; Project end Oct. 2015
- Research results will be applied for new production as rapidly and efficiently as possible

Achieving applicable results is top priority!

Project Activities

1. Improve Establishment of Switchgrass
 - a. Nurse Crop Concept
 - b. Re-seeding Options
 - c. Weed Control in Existing Stands
2. Improve Logistics of Switchgrass Production
3. Disseminate Information to Producers

Project Research Sites

Huron County, Nott Farms



Halton Region, Fidale Farms



Grey County, Eggimann Farms



Switchgrass Establishment with a Nurse Crop

2 Years ago: Switchgrass with Spring Wheat

2014 Project Activities:

1. Validation and improvements of Spring Wheat & Switchgrass combination at Nott Farms

Witness live pictures on today's field trip!

2. Oats & Switchgrass combination at Fidale Farms

Nurse Crop Concept

2012 projects with Spring Wheat

Nott Farms with 90% seeding rate:

- Very successful re weed control and cash flow



Eggimann Farms with 50% seeding rate:

- positive results re weed control, flat cash flow → higher rate!

Switchgrass & Oats Combination

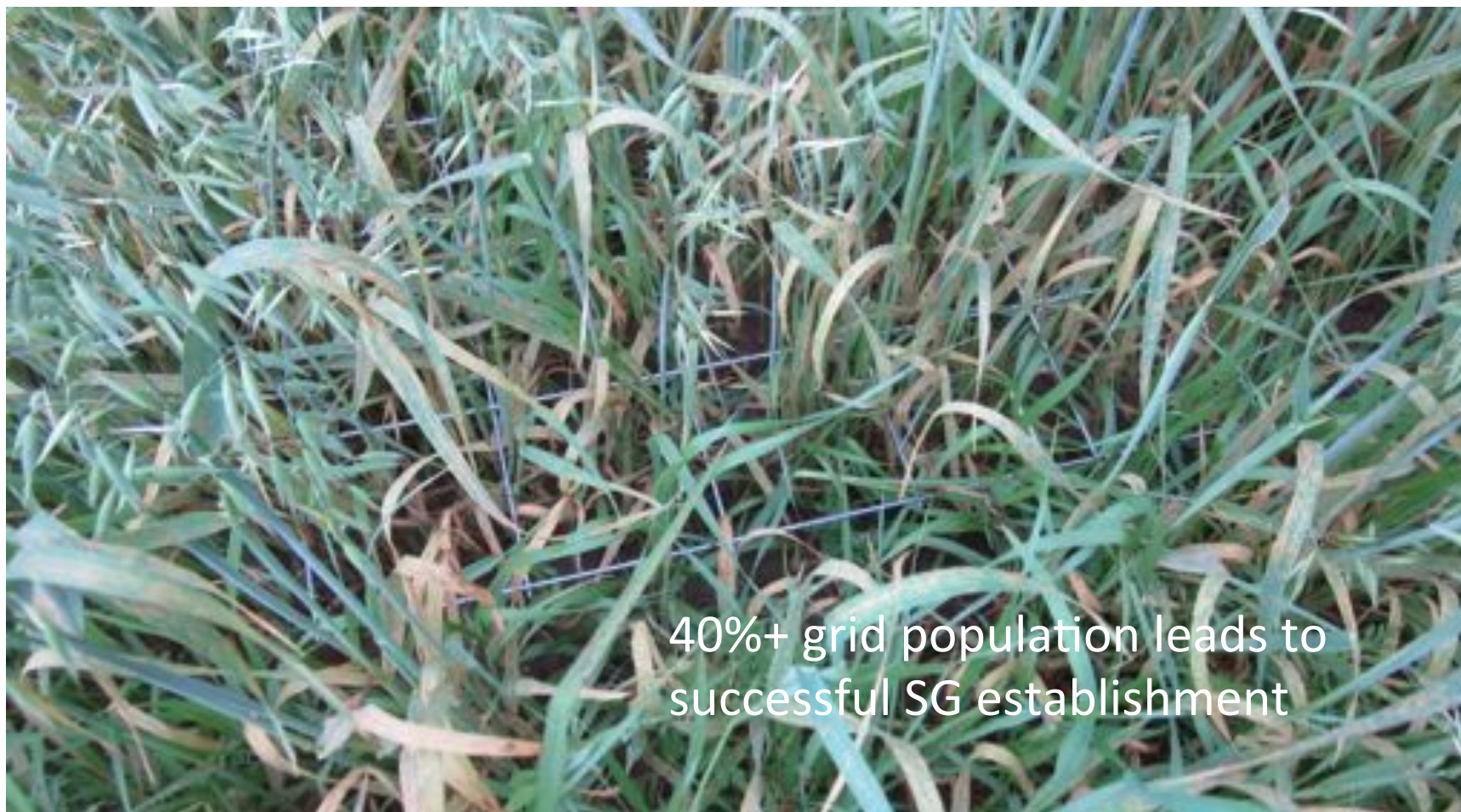


Fidale Farms

Switchgrass Plot without Oats



Evaluating Switchgrass Growth Rate % with Establishment Grid



40%+ grid population leads to successful SG establishment

Re-seeding Options

- Frost Seeding



- Seeding with no-till seed drill



2014 Reseeding Activities

- Reseeding done with no-till seed drill
- Spring 2014 conditions made frost seeding impossible
- Due to late removal of 2013 crop, no broad spectrum herbicide application possible before reseeding
- Very late start due to weather conditions

What a Spring!

Result: - Sub-par germination in 2014
- Hope for good 2nd year germination

Reseeding with No-till Drill



Reseeding with No-till Drill



2014 Reseeding Activities

- No frost seeding possible in Spring 2014
- No reseeding done in 2014
- Very late start due to wet conditions
- Early spring packing of switchgrass field with major establishment gaps in previous year

Result: Amazing success with packing!

Before ...



Fidale Farms

... and after!



Weed Control in existing Stands

Herbicide application to combat perennial weeds:

Demonstration of results part of Field Trip

Broadleaf applications in 1st and 2nd year stands:

- Halton
- Grey County

Observation:

Dandelion patches missed by sprayer can be devastating!

Mechanical Weed Control

More Art than Science!

Extensive mechanical weed control performed during 1st year.

Good success with reducing witch grass, an annual weed with very aggressive shading characteristics

Heavy foxtail infestations:

Minor visible difference with or without mowing.

More details during our OBPC winter event!

Improve Logistics of Switchgrass Production

- Minimize:
 - Handling
 - Indoor storage
 - Transportation
- Experiment with Wrapping / Outdoor Storage



Switchgrass under Tarps



Reclaimed
lumber tarps
used to protect
bottom bales
from moisture



Switchgrass under Tarps



Ground padded with loose switchgrass to protect bottom level bales.

Plastic wrapped Switchgrass



Switchgrass is **not** Hay!
Sharp stubbles can
damage bale wrap.



Limitation with max. bale length up to 6'

Dissemination of Research Results

Next Steps:

- Winter 2015 OBPC Biomass Event
- Documentation on OBPC Website
- Article(s) in OBPC Newsletters
- Ag Media coverage (need help of reporters)
- Final AAC Report in October 2015



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CO-OPERATIVE INC.

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Thank you!

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