

## Research Protocol

2016

# Horticulture: Quick turnaround cover crops before brassicas

## Farmer-Researcher: Mike Reid, Kolapore Gardens, Grey County

In cooperation with Kevin Hamilton, Angie Koch, Ken Laing and Ryan Thiessen

Overarching Research Question: Do spring planted cover crops benefit the production of late season brassica cash crops?

Mike's Specific Question: How does mowing a cover crop cocktail that includes white clover compare to working up the same cover crop cocktail in terms of fertility contribution and weed management for subsequent direct seeded kohlrabi and transplanted cabbage crops?

Predictions: Mike expects high yields from the worked up patches as the intended plants will be able to access the nutrients of the decomposing organic matter (OM) more readily; weed pressure will be easier to manage in the worked up patches, with manual hoeing one time; OM will test higher in the worked up patch, but that long term testing would show the unworked/mowed patch to be higher in OM. Finally, Mike hypothesizes that the purely mowed patches will take far less time to prepare.

#### Mike will:

- Take photos throughout the project
- Keep in contact with EFAO with updates and questions
- Establish and conduct experiment as outlined in Protocol below
- Turn in data by October 2016
- Complete farmer-led research program training and surveys
- Present at the Farmer-led Research Meeting in Kingston, November 29-30
- Maintain current membership in EFAO

#### **EFAO will:**

- Monitor progress of project
- Conduct training program
- Help set up Research Protocol, write and publish Protocol
- · Reimburse cost of field help, if necessary
- Help analyze data, write and publish Research Report
- Reimburse for cost of cover crop seed
- Provide \$500 payment to farmer at conclusion of project
- Reimburse one night's hotel stay for the Farmer-led Research Meeting in Kingston, November 29-30

#### **Research Protocol & Data Collection**

- In spring, establish cover crops in randomized and replicated plots following diagram below and try to maintain uniformity in management across beds and blocks.
- Record weed pressure and cover crop ground cover and aboveground biomass prior to termination.
- Plant late season cash crops; for each crop species, randomize seedlings across assigned beds
- Record yield of brassicas crops in both treatment and control plots
- Record labour for treatment and control plots
- Answer questions on data sheet provided.

#### **Experimental Design - continued on Page 2**

#### With support from:



An agency of the Government of Ontario Un organisme du gouvernement de l'Ontario

### Contact:

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Farmer-Researcher: Mike Reid, Kolapore Gardens, Grey County Experimental Design

Bed:	1 30"	2 30"	3 30"	4 30"
25'	К	С	С	К
25'	С	К	К	К
25'	К	К	К	С
25'	С	С	С	С

Legend	_
	Incorporated
	Mowed
	•
С	Cabbage
K	Kohlrabi