

### Farmer-Researcher: Kevin Hamilton, Shared Community Harvest Farm, Dunnville

In cooperation with Angie Koch, Ken Laing, Mike Reid and Ryan Thiessen

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

**Kevin's Specific Question:** *Does a cover crop cocktail differ from buckwheat monoculture with respect to plant health and harvestable yield of late season brassicas?*

There is potential for a cover crop polyculture to yield greater aboveground biomass, leading to better weed management and harvestable yield. Wire worm is also a big problem in Kevin's area and he is curious to see if different cover crops are better at controlling wire worm.

#### Kevin 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, cover crop ground cover and aboveground biomass prior to termination - at least take photos!
- Plant late season cash crops; **for each crop species, randomize seedlings across assigned beds**
- Record labour for treatment and control plots
- Record wire worm damage in treatment and control plots - at least take photos!
- Record yield of brassicas crops in control and treatment plots.
- Answer questions on data sheet provided.

#### Experimental Design - continued on Page 2

#### With support from:



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#### Contact:

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**Experimental Design - each replicate ~ 1 acre each**

**Legend**

	Buckwheat cover crop
	Cover crop cocktail

REPLICATE 1

D a i k o n	T u r n i p s	H a k u r e i	R e d & B l a c k R a d	W a t e r m e l o n R a d	W a t e r m e l o n R a d
D a i k o n	T u r n i p s	H a k u r e i	R e d & B l a c k R a d	W a t e r m e l o n R a d	W a t e r m e l o n R a d

REPLICATE 2

N a p a	N a p a	K a l e & P a c C h o i	B r o c c o l i	C a u l i f l o w e r	K o h l r a b i
N a p a	N a p a	K a l e & P a c C h o i	B r o c c o l i	C a u l i f l o w e r	K o h l r a b i

REPLICATE 3

D a i k o n	T u r n i p s	H a k u r e i	R & B R a d	W R a d	W R a d
D a i k o n	T u r n i p s	H a k u r e i	R & B R a d	W R a d	W R a d
N a p a	N a p a	K a l e P a c	B r o c c o l i	C a u l i	K o h l
N a p a	N a p a	K a l e P a c	B r o c c o l i	C a u l i	K o h l