



COVER CROP DIVERSITY IN NO-TILL SYSTEMS

A FIELD DAY TO SHARE PRELIMINARY RESULTS FROM A NE SARE PARTNERSHIP GRANT
NOVEMBER 8, 2013 * DEER VALLEY FARM * FERRISBURGH, VT

A special thank you to the farms who are participating in the project:

Ray Brands
Deer Valley Farm
No. Ferrisburg, VT
**cover crops in corn silage*

Ashley Farr
Farr Farms
Richmond, VT
**cover crops in corn silage*

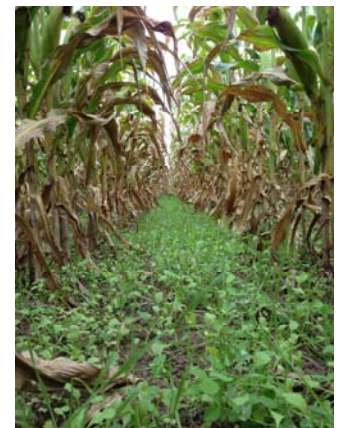
Joseph Heseock
Elysian Fields Dairy
Shoreham, VT
** cover crops in org. wheat*

Roger Scholten
Scholten Family Farm
Weybridge, VT
**Tillage Radish in Pasture*

Project Summary:

Fall plowed fields on clay soils in Vermont are a leading contributor to phosphorus pollution in Lake Champlain. Increasing water quality pressures coupled with a tough dairy economy have made it difficult for dairy farms in our region to adopt new and innovative practices. This project aims to lower some of the 'risk' of adopting conservation practices by demonstrating how they might benefit water quality, soil quality, and crop production – a win-win for farmers and Lake Champlain.

The Champlain Valley Crop, Soil & Pasture Team will work with four different farms to perform field trials to collect data and demonstrate practices to farmers across the Lake Champlain region, with a particular focus on managing challenging clay soils. Trials focused on the use of cover crop mixes, cover crops as pasture improvers, and reducing tillage. We utilized sound research methods to collect data that is usable and applicable to farmers in the Champlain basin. The CV Team has had great success with a no till project this summer and fall, and this project enabled us to capture that enthusiasm and momentum by offering yet another way to utilize those tools on their farms. This project will be expanded next year as we have received NRCS-CIG funding to trial 10 different cover crop mixes in corn, soybean & wheat systems



Site Statistics:

Location: Ferrisburgh, VT
Soil Type: Covington silty clay
Plot Size: 10' x 100'
Corn Planted: May 16, 2013
Cover Crop Mixes Broadcast*: August 15, 2013
Corn Harvested: September 24, 2013
Cover Crop Mixes Drilled:** September 26, 2013
**Broadcast plots seeded with hand seeders*
***Drilled plots seeded with Haybuster No-Till Grain Drill*

Funding for this
project was
provided by:



Strategic Watershed Action Team



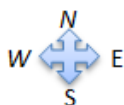
Cover Crop Mixes in Corn Silage

Mix 1 = Oat/Pea/Radish

Mix 2 = Triticale/Winter Pea/Winter Rape

Low Rate = 50 lbs/acre

High Rate = 116 lbs/acre



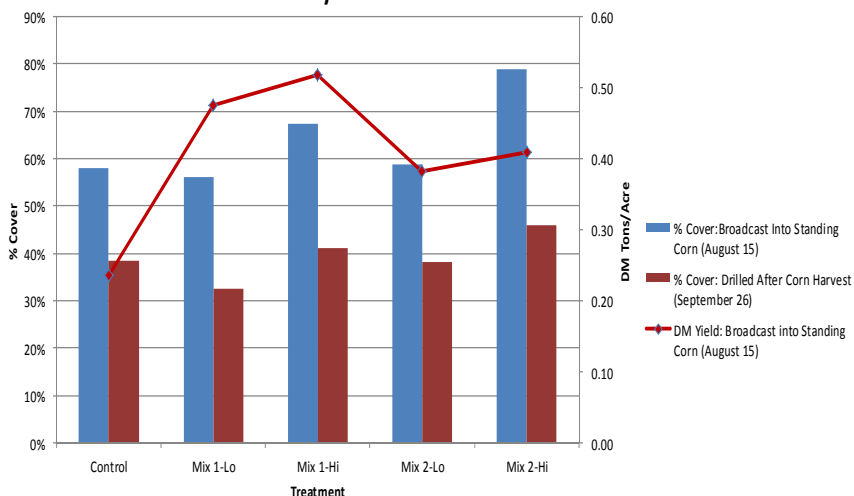
Broadcast into standing corn: 8-15-13

R1	Mix 1 @ 116 lbs	15
	Mix 2 @ 116 lbs	14
	Mix 2 @ 50 lbs	13
	Control (Winter Rye @ 100 lbs)	12
	Mix 1 @ 50 lbs	11
R2	Mix 2 @ 116 lbs	10
	Mix 2 @ 50 lbs	9
	Control (Winter Rye @ 100 lbs)	8
	Mix 1 @ 50 lbs	7
	Mix 1 @ 116 lbs	6
R3	Mix 2 @ 116 lbs	5
	Mix 1 @ 116 lbs	4
	Mix 2 @ 50 lbs	3
	Mix 1 @ 50 lbs	2
	Control (Winter Rye @ 100 lbs)	1

Drilled after corn harvest: 9-26-13

Mix 1 @ 116 lbs	15
Mix 2 @ 116 lbs	14
Mix 2 @ 50 lbs	13
Control (Winter Rye @ 100 lbs)	12
Mix 1 @ 50 lbs	11
Mix 2 @ 116 lbs	10
Mix 2 @ 50 lbs	9
Control (Winter Rye @ 100 lbs)	8
Mix 1 @ 50 lbs	7
Mix 1 @ 116 lbs	6
Mix 2 @ 116 lbs	5
Mix 1 @ 116 lbs	4
Mix 2 @ 50 lbs	3
Mix 1 @ 50 lbs	2
Control (Winter Rye @ 100 lbs)	1

% Cover & Dry Matter Yield: Measured 11-01-2013



FOR MORE INFO:

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Brands...Fall 2013

Treatment	Planting Method	Site	AVG DM					AVG % Cover
			AVG DM %	Yield Ton/Ac	AVG lbs N/acre	AVG lbs P/acre	AVG lbs K/acre	
Control	BDCST	Brands	0.21	0.23	18	2	17	58%
Mix 1-Lo	BDCST	Brands	0.12	0.47	34	3	32	56%
Mix 1-Hi	BDCST	Brands	0.12	0.52	36	4	39	67%
Mix 2-Lo	BDCST	Brands	0.14	0.38	31	3	25	59%
Mix 2-Hi	BDCST	Brands	0.12	0.41	29	3	23	79%
Control	DRILL	Brands						38%
Mix 1-Lo	DRILL	Brands						33%
Mix 1-Hi	DRILL	Brands			N/A			41%
Mix 2-Lo	DRILL	Brands						38%
Mix 2-Hi	DRILL	Brands						46%

Our Team

Project Leader

Jeffrey Carter
 Extension Agronomist

Agronomy Outreach

Rico Balzano
 Kirsten Workman
 Cheryl Cesario

Field Technicians

Daniel Infurna
 Jonathan Kuehne
 John Roberts