

North Central Sustainable Agriculture Research & Education
NCR-SARE Farmer Rancher Grant:
Roller-Crimper Construction and No-Till Organic Weed Control

Jackie's commitment: Plant winter wheat on ¾ acre in fall 2009 (extended to fall 2010). Crimp in spring and plant plot to organic corn. Compare crimped plot to both organic and conventional corn grown on farm. Weather conditions, weed pressure, crop health, soil moisture, insect pressure and invertebrate response will be monitored. A cost/benefit analysis will be conducted between the no-till and traditional weed control methods, taking into account overall yield.

	<u>Avg. High Temperature</u>	<u>Total Precipitation</u>	<u>Corn Weed Pressure</u>	<u>Corn Crop Health</u>	<u>Insect Pressure</u>
APRIL	57.7 °	3.40 in.	Low	-NA-	-NA-
MAY	70.4 °	3.94 in.	Low	-NA-	-NA-
JUNE	80.7 °	3.44 in.	Med	Slow to germinate	None
JULY	89.6 °	4.60 in.	Med	Heat, drought has stopped growth, plants yellowing, leaves curled	Little to none
AUGUST	-NA-	-NA-	Med	Uneven growth after rainfall, improved color, uneven tasseling	Little

<u>Grant Plot</u>	<u>Organic Corn</u>
Cover Crop: Winter Rye	Cover Crop: Winter Rye
Rye Planted: November 9, 2010	Rye Planted: November 9, 2010
Rye Crimped: June 2, 2011	Rye Tilled Under: May 2011
OG Corn Planted into Rye: June 5, 2011	OG Corn Planted : May 22, 2011
Corn Germinated: June 12, 2011	Corn Germinated: May 26, 2011
Cultivated: -NA-	1st Cultivation: May 30, 2011
Yield: TBD 40 bu/acre	2nd Cultivation: June 21, 2011
Invertebrate Response: TBD	Yield: TBD 120 bu/acre
Overall Costs: TBD	Invertebrate Response: TBD
	Overall Costs: TBD

Extra Information

Corn Variety: Masters Choice 515 OG, 98 day—OG cornfield, grant plot's inside 4 rows
 Extra Variety: Tim Clay OG Corn, 102 day — grant plot's outside 8 rows (ran short of MC515)
 Crimper Manufacturer: I & J Mfg. of Gap, PA. (717) 442-9451