

NDSU North Central Research Extension Center
2017 Spring Wheat Plantback onto Barley + Cover Crop Stubble

2016 Cover Crop Treatments	Days to Head	15-Jul NDVI	Plant Height	Test Weight	Protein	Grain Yield
	DAP ¹	0 - 1	inches	lbs/bu	%	bu/A
No cover crop	60	0.40	26	61.0	13.0	30.5
CC planted with barley	59	0.39	25	61.0	13.1	35.8
CC broadcast over 4 leaf barley	60	0.42	25	61.6	13.0	36.1
CC broadcast over early headed barley	60	0.37	25	60.4	12.9	29.0
CC planted after barley harvest	60	0.40	24	60.9	13.0	34.3
CC planted with barley + flax post-harvest	59	0.40	27	60.8	13.1	35.3
Trial Mean	60	0.40	25	61.0	13.0	33.5
C.V.%	2.3	13.90	8.2	1.2	7.9	11.5
LSD 5%	NS	NS	NS	NS	NS	NS

¹ DAP = Days after planting. NS = no statistical difference between cover crop treatments.
 Planting Date: April 21 Variety: Barlow Harvest Date: August 14
 Notes: The trial did not receive any applied fertilizer. The Trial sustained moderate drought stress.

2016 Barley Interseeded with Cover Crops at Minot

Cover Crop Treatment	Cover Crop Planting Date	Days to Head	15-Jul NDVI	Plant Height	Lodging	% Plump	% Thin	1000 KWT	Test Weight	Protein	Grain Yield	Cover Crop Biomass ³
		DAP ¹	0-1	inches	0-9 ²	>6/64	<5/64	g	lbs/bu	%	bu/A	lbs/A
No cover crop	--	52	0.47	32	4	94	1	41	49.6	11.5	109.4	944
CC planted with barley	May 6	52	0.49	33	6	94	1	41	49.8	12.9	115.8	1061
CC broadcast over 4 leaf barley	June 4	52	0.49	32	5	93	1	40	49.6	12.5	116.7	833
CC broadcast over early headed barley	June 27	52	0.47	32	3	94	1	41	49.8	12.0	111.7	982
CC planted after barley harvest	Aug. 15	52	0.50	32	3	94	1	41	49.9	12.4	107.4	1258
CC planted with barley + flax post-harvest	5/6 + 8/15	53	0.50	32	3	96	1	42	50.1	12.0	110.1	1340
Trial Mean		52	0.48	32	4	94	1	41	49.8	12.2	111.8	1070
C.V.%		1.6	5.6	6.2	48	1.8	31	2.6	1.1	8.4	5.4	20.0
LSD 0.05		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	322

¹ DAP = Days after planting. ² Lodging: 0 = none, 9 = lying flat on the ground.
³ Cover crop biomass includes all green plant material (cover crop + volunteer barley) at the end of the growing season. Biomass was harvested on Oct. 14 and reported on a dry weight basis.
 NS = no statistical difference between cover crop treatments.

Barley Variety: Tradition
 Cover Crop Mix: turnip, radish, lentil and flax
 Soil Type: Williams Loam

Planting Date: May 6
 Previous Crop: canola

Harvest Date: August 11
 Tillage System: No-till