

Table 8. Influence of cover crop species, barley cultivar, and barley seeding rate on soil nitrate level at frost and pre-fertilization time at the Agricultural Research Farm, South Deerfield, MA, 2015-2016

Cover Crop	Cultivar	Seeding rate (seeds/m ²)	Soil nitrate at frost (mg/L) (Oct 20, 2015)	Soil nitrate Pre-fertilization (mg/L) (Apr 14, 2016)
SH+CC	WM	300	2.2	8.5
		350	4.4	5.3
		400	2.4	4.2
	CH	300	2.9	4.3
		350	1.9	2.3
		400	3.0	4.0
CC	WM	300	2.9	6.5
		350	2.0	4.6
		400	1.6	2.1
	CH	300	2.2	4.2
		350	2.1	0.0
		400	1.8	2.6
SH	WM	300	4.3	3.8
		350	6.4	2.3
		400	3.3	3.9
	CH	300	2.9	3.3
		350	3.2	3.9
		400	4.1	4.4
None	WM	300	1.9	5.9
		350	1.6	1.1
		400	2.1	4.2
	CH	300	1.9	1.9
		350	1.8	5.5
		400	2.1	3.6
Cover Crop				
SH+CC			2.8	4.8
CC			2.1	3.3
SH			4.0	3.6
None			1.9	3.7
Cultivar				
WM			2.9	4.4
CH			2.5	3.3
Seeding Rate				
300			2.7	4.8
350			2.9	3.1
400			2.6	3.6
<i>Significance¹ by main factors</i>				
Cover crop (CC)			*	ns
Cultivar (C)			ns	ns
Seeding rate (SR)			ns	ns
CCxC			ns	ns
CCxSR			ns	ns
CxSR			ns	ns
CxCCxSR			ns	ns

¹t indicates P<0.1, *indicates a significant relationship or difference (P<0.05), **indicates a highly significant relationship or difference (P<0.01), ***(P<0.001) indicates a very highly significant relationship or difference