

Table 4. Effect of brassica cover crops on **soil compaction** of onions grown in the muck soils in Elba, NY.

Field	Mean Soil Compaction (psi) <sup>1</sup>	
	Depth: 1-6"	Depth: 7-12"
<b>Triple G Case Study (yellow direct seeded onion; c.v. Hendrix)</b>		
<b>Pre-plant soil samples collected on Apr-21-2014:</b>		
Brown/yellow mustard blend (c.v Caliente) 11 lb/A; optimally planted on Aug-20-2013; late planted on Aug-30-2013 (10 days). Incorporation: cover crops chopped, disked and culti-mulched on Oct-25-2016 when mustard was 2 feet tall with ~1% in bloom.		
Bare ground	95.8 a <sup>2</sup>	128.7 b
Late Planted Mustard	100.2 a	141.0 a
Optimally Planted Mustard	86.6 a	129.1 b
<b><i>P Value (α=0.05)</i></b>	<b><i>0.0116</i></b>	<b><i>0.0051</i></b>
<b>Mortellaro Case Study (yellow transplanted onion; c.v. Bradley)</b>		
<b>Pre-plant soil samples collected on Apr-24-2014:</b>		
Brown/yellow mustard blend (c.v. Caliente) 12 lb/A; optimally planted on Aug-7-2013 and incorporated via chopping, plowing and rolling on Oct-23-2013 when mustard 5 feet tall with 70% in bloom; late planted on Sep 26-2013 (37 days late) and incorporated in the same manner on Oct-28-2013 when mustard was 4 feet tall with 30% bloom. Winter-killed late planted mustard was planted on Aug-27-2013 (7 days late). Forage radish (c.v Ecotill Buster) 8 lb/A was planted on Aug 30-2013 (10 days late).		
Incorporated Optimally Planted Mustard	27 c	85 b
Incorporated Late Planted Mustard	22 c	72 b
Winter-killed Late Planted Mustard	125 a	149 a
Winter-killed Late Planted Forage Radish	73 b	144 a
<b><i>P Value (α=0.05)</i></b>	<b><i>0.0000</i></b>	<b><i>0.0000</i></b>

<sup>1</sup>Soil compaction measured using a penetrometer at 10 sites following a "V" pattern in each of 6 replicates per field.

<sup>2</sup>Numbers in a column followed by the same letters are not significantly different, Fisher's Protected LSD test, p<0.05.