

Table 1. Initial (Pi) and final (Pf) populations of nematodes observed per 200 mL of soil from 100 points per field at planting and harvest, respectively. Manual counting was conducted using a microscope following a modified Whitehead tray extraction technique from soil collected in three potato fields in New York in 2016. Populations were highly variable within the field, with some locations having high populations, while other locations had no detectable nematodes. *P*-values indicate results of a paired t-test of initial and final populations across all sampling points within the field. ns = not significant at the 0.05% level.

		Lesion (<i>Pratylenchus</i> spp.)			Root knot (<i>Meloidogyne</i> hapla)		
		P _i	P _f	P _f /P _i	P _i	P _f	P _f /P _i
Field 1	Maximum	2,275	5,588		1,438	587.5	
	Minimum	94	75		0	0	
	Average	942.8	1547	1.64	52.0	37.5	0.72
	p-value	< 0.0001			0.387 (ns)		
Field 2	Maximum	554	999		1,588	23,337	
	Minimum	0	0		0	0	
	Average	76.8	81.5	1.06	72.0	2116	29.39
	p-value	0.738 (ns)			< 0.0001		
Field 3	Maximum	506	787.5		1,038	20,588	
	Minimum	0	0		0	0	
	Average	72.0	57.7	0.80	115.3	3511	30.45
	p-value	0.165 (ns)			< 0.0001		

Meloidogyne hapla Population Distribution

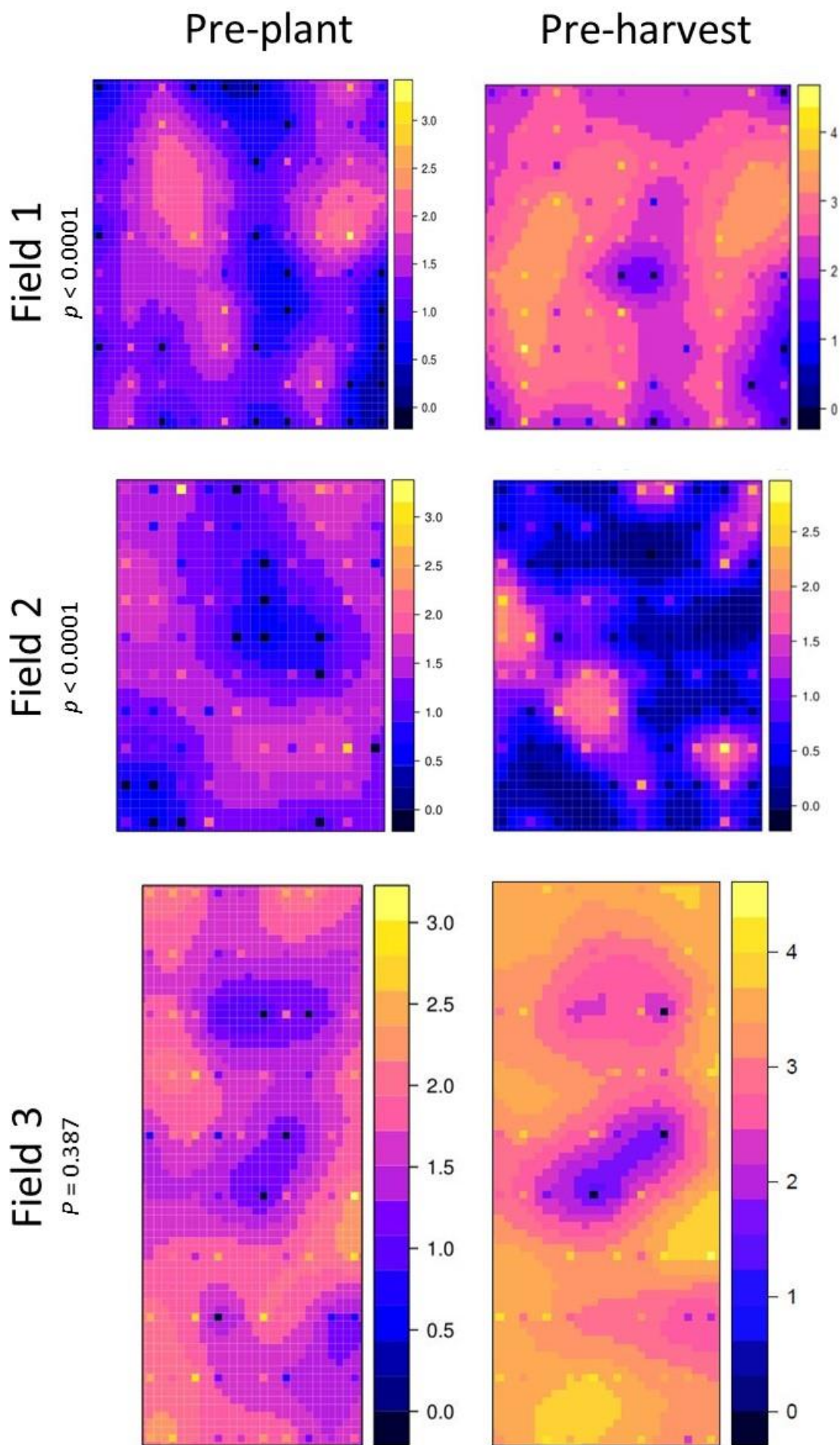


Figure 1. Spatial distribution of *Meloidogyne hapla* population densities at planting and harvest within three potato fields in New York as determined by manual counting and interpolation with ordinary kriging. Marks on the scale indicate a 10-fold increase. Population densities were highly variable across the field and a significant increase in population density was observed for Field 1 and Field 2 between the two sampling times.

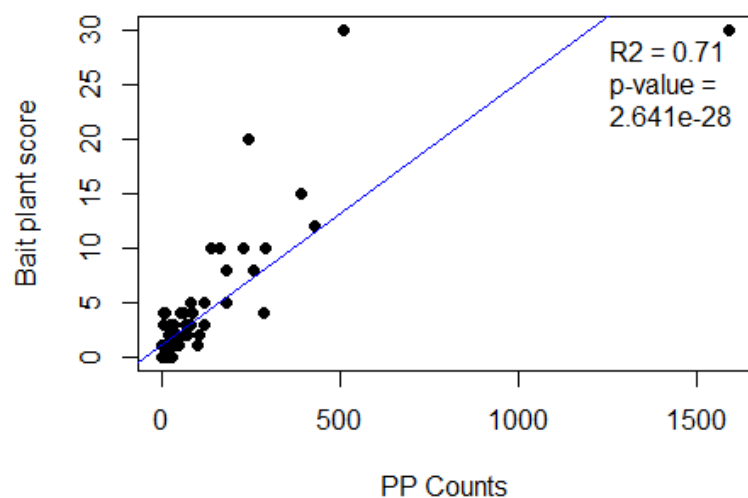
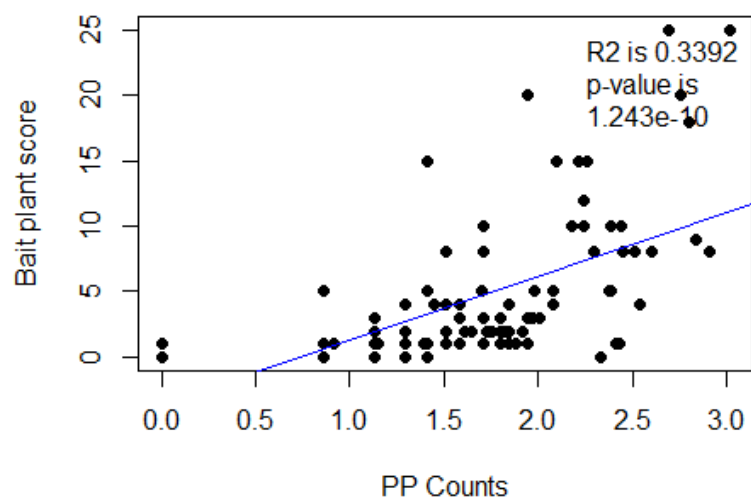
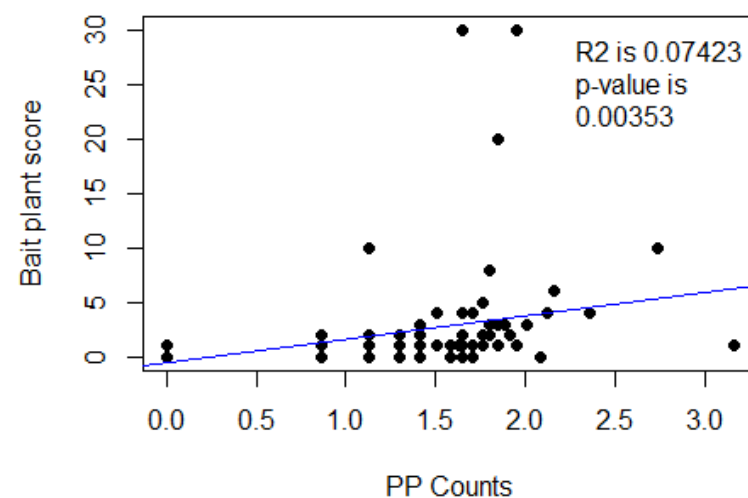
A**Bait plant score vs Pre plant *Meloidogyne*****B****Bait plant score vs Pre plant *Meloidogyne*****C****Bait plant score vs Pre plant *Meloidogyne***

Figure 2. Regressions between *Meloidogyne hapla* populations assessed by manual counting at planting and root galling severity in tomato bait plants for each of the three potato fields (A, B, and C) in New York in 2016.

Table 2. Association between total tuber weight (kg) and populations of *Meloidogyne hapla* and *Pratylenchus* spp. combined at the two sampling times for the three potato fields in New York in 2016. Probability values presented parenthetically. ns = not significant at the 0.05% level.

	Pearson's Correlation Coefficients for <i>Meloidogyne hapla</i> and <i>Pratylenchus</i> spp. Populations Combined	
	Tuber Weight and Initial Populations	Tuber Weight and Final Populations
Field 1	0.047 (p = 0.642) (ns)	0.287 (p = 0.0038)
Field 2	- 0.16 (p = 0.108) (ns)	0.26 (p = 0.0098)
Field 3	0.17 (p = 0.094) (ns)	0.32 (p = 0.041)