

Nema-Test
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**2018 Nematode Threshold
 Levels Crop = Wheat/Small Grain**

www.nematest.com

Given Below are estimated threshold values for injurious (pathogenic) nematodes on wheat and/or small grain grown in central USA. Attempting to establish a strict threshold value is folly, as local environmental factors such as water, heat, wind, soil type all come into play when assessing stress caused by pathogenic nematodes. However, some line must be drawn, and I have done that for three seasons, however that may not be appropriate for areas in the southern USA as it is for central USA. Five nematodes (sting, lance, lesion, root knot, and cereal nematode) have caused most of the damage that I have seen, but in my opinion, there are four other damaging ones: the needle, stubby root, stunt, and dagger. The spiral and ring nematodes can be injurious if found in high numbers. I have not seen the cereal nematode in samples received.

Nematodes Per 100 cm ³ soil	Threshold Levels		
	Early Spring April - May	Mid Summer July - August	Early Fall Sept - October
A.Stylet Forms			
Aphelenchoides	+	+	+
Aphelenchus	+	+	+
Belonolaimus (Sting)	1	1	1
Criconeema/Mesocriconeema (Ring)	200	400	600
Ditylenchus (Stem)	No Data	No Data	No Data
Dorylaimus/Dorylaimida	No Data	No Data	No Data
Helicotylenchus (Spiral)	400	600	800
Hemicycliophora (Sheath)	150	150	150
Heterodera (Cereal Cyst)	10	25	50
Hoplolaimus (Lance)	15	25	40
Meloidodera (Cystoid)	10	25	50
Meloidogyne (Root Knot) juveniles	50	100	150
Longidorus (Needle)	1	1	1
Paratrichodorus (Stubby Root)	25	50	100
Paratylenchus (Pin)	No Data	No Data	No Data
Pratylenchus (Lesion)	25	50	100
Rotylenchus	No Data	No Data	No Data
Rotylenchulus (Reniform)	No Data	No Data	No Data
Tylenchorhynchus/Quinisulcius (Stunt)	25	50	50
Tylenchus/Psilenchus	+	+	+
Xiphinema (Dagger)	30	30	30
Other:			
B.Non-Stylet Forms	++	++	++
Nematodes Per Gram Dry Root			
Hoplolaimus (Lance)	50	100	150
Pratylenchus (Lesion)	300+++	400	500
Meloidogyne (Root Knot)	50	100	150
Other:			

Comments: + = Fungal Feeders, no threshold value assigned
 ++ = Non-pathogenic to turf plants
 +++ = Lesion often high in young plants due to small root mass concentrating them; but plants can outgrow feeding effects of lesion nematodes under this number.
 = Severely pathogenic nematodes

Threshold levels are those levels of nematodes that would reduce stand by 15%.