

Nema-Test
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Nematode Threshold Levels
Crop = Corn

www.nematest.com

Given Below are estimated economical threshold values for injurious (pathogenic) nematodes on corn in Nebraska and bordering states. It is a slight modification of my first list printed in 1982. 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. The population dynamics of one nematode may not follow another. For example, *Xiphinema* is often higher in the spring and late fall than in mid-summer. In my opinion, there are eight severely pathogenic nematodes: the sting, lance, cystoid, needle, lesion, stubby root, stunt, and dagger. The spiral and ring nematodes if high enough can be injurious. Root knot damages corn in Southern United States. Soybean cyst nematode (SCN) does not occur on corn.

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
Criconema/Mesocriconema (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	No Data	No Data	No Data
Heterodera (Cyst)	++	++	++
Hoplolaimus (Lance)	15	25	40
Meloidodera (Cystoid)	10	25	50
Meloidogyne (Root Knot) juveniles	50	100	250
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)	40	40	40
Other:			
B.Non-Stylet Forms	++	++	++
Nematodes Per Gram Dry Root			
Hoplolaimus (Lance)	50	100	200
Pratylenchus (Lesion)	500+++	400	1000
Meloidogyne (Root Knot)	50	100	300
Other:			

Comments: + = Fungal Feeders, no threshold value assigned
 ++ = Non-pathogenic to corn plants
 +++ = Lesion often high in young plants (2-6 leaf) 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 yields by 5-8 bu/acre.

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