

Crop Management Diagnostic Clinics

Jackson

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Assessing Potential Nematode Damage in Corn

Historically

- Results of analyses reported based on number of each species (usually genus)
 - Lacked consistency between labs
 - May/may not include root extractions?
- Damage “thresholds” based on observations and little data
 - *Single* nematode – not mixed population
- Often without regard to:
 - Nematode behavior & sampling timing
 - Field conditions & risk factors



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Assessing Potential Nematode Damage in Corn

Revised Sampling Recommendations

- Up to V6 corn – any soil type – esp. sand
 - 10+ soil cores to 12” deep
 - Dig 4 – 6 plants
- V6 to R3 (milk)
 - Soil only
- R4 (dough) to harvest
 - Sampling not recommended
 - After harvest – if NOT sandy



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Assessing Potential Nematode Damage in Corn

Updated Nematode Action Levels

- **TOTAL NEMATODE DAMAGE RISK INDEX** –
 - to assess potential damage from all plant-parasitic nematodes known to feed on corn identified in the sample
 - Formula with weighted values according to nematodes’ relative damage



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Assessing Potential Nematode Damage in Corn

Updated Nematode Action Levels

- **SITE SENSITIVITY INDEX** - to assess a field’s vulnerability to nematode damage on corn
 - Number of years corn grown
 - Predominant soil texture
 - Availability of irrigation
 - Use of conservation tillage
 - Occurrence of stand establishment and/or compaction problems



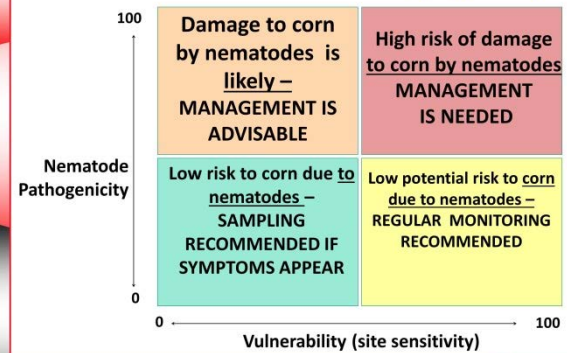
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Estimated Nematode Damage Potential in Corn (By V6)

Species	Nematode Damage Potential (per 100 cc soil)		
	Low	Moderate	High
Sting			>1 (or equal to)
Needle			>1 (or equal to)
Lesion	<100	101-200	>200
Lance	<50	51-100	>100
Stubby-root	1-50	51-200	>200
Dagger	<100	101-200	>200
Spiral	<500	>500	
Stunt	<500	>500	
Ring	Any		
Pin	Any		
Root knot	<100 J2	101-300 J2	>300 J2

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Estimated Nematode Damage Potential in Corn (By V6)



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