

# Choose the best rotation crop:

If root knot nematodes are  
a problem

TABLE 1. ROOT KNOT NEMATODE HOST STATUS ON 47 MATURED ROTATION CROPS

	ROOT KNOT NEMATODE HOST STATUS				Nemas per g root
	<i>M. hapla</i>	<i>M. incognita</i>	<i>M. javanica</i>	<i>M. arenaria</i>	
	9 11	3 4 6 10	5 8 20 19	2 7 21	
TOMATO, Large Red Cherry	■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	37.3
CELERY - Kintsai		■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	28.0
TOMATO - Rutgers	■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	27.7
SQUASH - Sndnc. Crknck.	■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	18.4
OKRA - Clemson Spnls.	■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	17.8
CUCUMBER - Mktmore 76	■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	14.8
SQUASH - Waltham Butternut	■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	14.6
ONION - Early Fresno White	■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	14.3
BEAN - Blu.Lk. Bush#274	■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	13.6
CARROT - Danvers 1/2 long	■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	12.0
LETTUCE - Romain	■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	11.1
SQUASH - Benning Grn. Tint	■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	11.0

■ Galled but no juveniles	■ Non Host or <0.2 nematodes/g root
Galled	■ Poor Host or 0.21 to 0.6
■ Host or 0.61 to 3.0	■ Good to Excellent at 3.1+ nemas/g root

**TABLE 1. ROOT KNOT NEMATODE HOST STATUS ON 47 MATURED ROTATION CROPS**

	ROOT KNOT NEMATODE HOST STATUS				Nemas per g root
	<i>M. hapla</i> 9 11	<i>M. incognita</i> 3 4 6 10	<i>M. javanica</i> 5 8 20 19	<i>M. arenaria</i> 2 7 21	
LETTUCE - Great Lakes (Head)	[■] [■]	[■] [■] [■] [■]	[■] [■] [■]	[■] [■] [■]	10.7
ONION - Early Red Burger		[■] [■] [■]	[■]	[■]	9.4
CARROT - Imperator #58	[■] [■]	[■] [■] [■] [■]	[■] [■] [■] [■]	[■] [■] [■]	8.7
SQUASH - Ambsadr. Zucchini	[■] [■]	[■] [■] [■] [■]	[■] [■] [■]	[■] [■] [■]	8.5
BEETS - Detroit Dk. Red	[■]	[■] [■] [■]	[■] [■] [■]	[■] [■] [■]	7.2
CAULIFLOWER - Snwbl., Imp.		[■] [■] [■]	[■] [■] [■]	[■] [■]	6.6
MUSTARD - Florida Brdlt.	[■] [■]	[■] [■] [■]	[■] [■] [■]	[■] [■] [■]	6.5
PUMPKIN - Connecticut	[■]	[■] [■] [■] [■]	[■] [■] [■]	[■] [■]	3.9
CABBAGE - Copenhagen Mkt.	[■]	[■] [■] [■]	[■]	[■]	3.0
CORIANDER - Moroccan	[■] [■]	[■] [■] [■] [■]	[■] [■] [■]	[■] [■] [■]	3.0
CUCUMBER - Japanese	[■] [■]	[■] [■] [■]	[■]	[■] [■]	2.62

<span style="color: red;">■</span> Galled but no juveniles	<span style="color: red;">■</span> Non Host or <0.2 nematodes/g root <span style="color: yellow;">■</span> Poor Host or 0.21 to 0.6 <span style="color: green;">■</span> Host or 0.61 to 3.0 <span style="color: darkgreen;">■</span> Good to Excellent at 3.1+ nemas/g root
<span style="color: red;">■</span> Galled	<span style="color: red;">■</span> <span style="color: yellow;">■</span> <span style="color: green;">■</span> <span style="color: darkgreen;">■</span>

**TABLE 1. ROOT KNOT NEMATODE HOST STATUS ON 47 MATURED ROTATION CROPS**

	ROOT KNOT NEMATODE HOST STATUS				Nemas per 5 roots									
	<i>M. hapla</i>		<i>M. incognita</i>											
	9	11	3	4	6	10	5	8	20	19	2	7	21	
ALFALFA - Madera	■	■	■	■	■	■	■				■	■	■	0.03
VELVET BEAN - <i>M. deeringana</i>	■	■	■	■	■	■	■	■	■	■	■	■	■	0.02
VELVET BEAN - <i>M. altisimo</i>	■	■	■	■	■	■	■	■	■	■	■	■	■	0.02
PEANUT - Florunner	■	■		■	■	■	■	■	■	■	■	■	■	0.02
WATERMELON - Christn. Gray	■	■		■	■	■	■	■	■	■	■	■	■	0.00
COTTON - Deltapine 61	■	■	■	■	■	■	■	■	■	■	■	■	■	0.00
PEPPER - Calif. Wonder	■	■		■	■	■	■	■	■	■	■	■	■	0.00

<span style="color: red;">■</span> Galled but no juveniles	<span style="color: red;">■</span> Non Host or <0.2 nematodes/g root <span style="color: yellow;">■</span> Poor Host or 0.21 to 0.6 <span style="color: green;">■</span> Host or 0.61 to 3.0 <span style="color: lightgreen;">■</span> Good to Excellent at 3.1+ nemas/g root
<span style="color: red;">■</span> Galled	<span style="color: red;">■</span> Non Host or <0.2 nematodes/g root <span style="color: yellow;">■</span> Poor Host or 0.21 to 0.6 <span style="color: green;">■</span> Host or 0.61 to 3.0 <span style="color: lightgreen;">■</span> Good to Excellent at 3.1+ nemas/g root

# Choose the best rotation crop:

Where perennials will be planted  
and nematodes are the concern

## Definitions for interactions

**R** Resistance to endoparasites = < 0.2 nematodes/gr root or if ectoparasitic =  
< 2% of the soil population level of a common Susceptible rootstock during an 18 month study

**MR** Moderate resistance for endoparasites = 0.21 to 0.6 nematodes/gr root or if ectoparasitic =  
<5% of the soil population level of a common Susceptible rootstock during an 18 month study

**S** Susceptibility to endoparasites refers to plants supporting 0.61 to 180 nematodes/gr root

or > 10 nematodes / 250 cm<sup>3</sup> soil sample if ectoparasitic

**HS** Highly Susceptible plants support root populations in excess of 180/gram of root.

**T** Tolerance indicates the plant does not exhibit extensive damage due to nematode feeding

**IT** Intolerance indicates the plant exhibits notable damage due to nematode feeding

**BCC=** predisposition to Bacterial Canker Complex

**S at tips** = Susceptibility at root tips only

Rootstock-Nematode Profiles for perennial crops

	<i>Meloidogyne</i> spp	<i>P.</i> <i>vulnus</i>	<i>M.</i> <i>xenoplax</i>	<i>T. semipen</i>	<i>X. index</i>
alfalfa, CA Common	S-IT ( <i>M. hap</i> )	MR-T	S-T	R	R
almond / Nemaguard	R	S-IT	S>BCC	R	R
almond / Hansen 536	R	low S	HS>BCC	R	R
Apple / seedling	S	S	?	R	R
Apricot / Nemaguard	R	S-IT	S>BCC	R	R
Avocado	R	S	?	R	R
Boysenberry	MR-T	S-IT	?	R	R
Cherry / Colt	HS-IT	HS-IT	HS>BCC	R	R
Cherry / Mazzard	HS-IT	HS-IT	HS>BCC	R	R
Cherry / Mahaleb	HS-IT	HS-IT	HS>BCC	R	R

	<i>Meloidogyne</i> spp	<i>P. vulnus</i>	<i>M. xenoplax</i>	<i>T. semipen</i>	<i>X. index</i>
Citrus / Troyer-Trifoliate	R-T	S	MR	HS-IT	R
Grape, own rooted	S-HS-IT	low S-IT	S-IT	HS-IT	S-IT
Grape / Harmony	R>S>HS-IT	low S-IT	S-IT	HS-IT	R-T
Grape / Freedom	R>S>HS-IT	MR-T	HS-T	MR	R-T
Grape / RS-3	R-T	R	MR	slight S	R-T
Grape / 10-17A	R-T	R	S	slight S	R-T
Fig, own rooted	HS-T	S-T	S	R	S
Kiwifruit, own rooted	HS-IT	S-IT	S	R	R
Olive, own rooted	HS-T	S-T	S	S	R
Peach / Nemaguard	R-IT>T	S-IT	S>BCC	R	R

	<i>Meloidogyne</i> spp.	<i>P. vulnus</i>	<i>M. xenoplax</i>	<i>T. semipen</i>	<i>X. index</i>
Peach / HBOK1	R	S	R>Lovell	R	R
Persimmon, own root	R	MR	?	S	R
Pistachio / UCB1 clone	R>S-IT	R>S-IT	S	R	R
Pistachio / <i>P. atlantica</i>	R>S-IT	R>S-IT	S	R	R
Plum / Marianna 2624	R-T	S-IT	HS>BCC	slight S	R
Plum / Krymsk 1	S at tips	R-T	S	R	R
Pomegranate, own root	S-R	?	?	R	R
Walnut seedlings / NCB	10% S-IT	S-IT	S-T>IT	R	R
Walnut / Paradox	10% S-IT	HS-IT	S-T>IT	R	R
Walnut / <i>J. cathay</i> #21	R	R	?	R	R
Walnut / Serr clones	R	S	S	R	R
Walnut / VX211 clones	S-T	S-T	S	R	R