



Root-knot Nematodes on Tobacco

www.ncagr.gov/agronomi/uyrnem.htm

Root-knot nematodes (*Meloidogyne incognita*, *M. arenaria* and *M. javanica*) can cause serious problems in tobacco. To minimize damage, implement the control practice(s) recommended by the note(s) specified on your nematode assay report. Notes 3–1 through 3–10 are presented here.

Note	Root-knot Population		Hazard	Comment
	Fall	Spring		
3–1	0	0	None	Root-knot nematode populations are undetectable. A nematicide is not needed. However, a chemical treatment may be required to control soil-borne diseases, such as black shank or Granville wilt.
3–2	10–200	10–20	Very Low	Root-knot nematodes are not likely to cause economic damage at this level. Use a resistant variety to prevent populations from increasing—unless the nematodes are already damaging a resistant variety. In that case, the usefulness of such varieties is limited. Other soil-borne diseases may still require chemical treatment.
3–3	201–1000	21–100	Low	Use a resistant variety or a nematicide with a rating of at least 4. However, if nematodes are already damaging root-knot resistant tobacco in this field, rely on a nematicide with a rating of 1 or 2.
3–4	1001–3000	101–300	Moderate	Use a resistant variety and a nematicide treatment with a rating of at least 3. However, if root-knot damage has already occurred on resistant tobacco in this field, use a nematicide with a rating of 1 or 2.
3–5	3000+	300+	High	Use a resistant variety and a nematicide with a 1 or 2 rating. However, if nematodes are already damaging resistant varieties in this field, use of nematicides is the only viable option.

NCDA&CS
AGRONOMIC DIVISION
NEMATODE ASSAY SECTION

PHYSICAL ADDRESS
4300 REEDY CREEK ROAD
RALEIGH NC 27607-6465

MAILING ADDRESS
1040 MAIL SERVICE CENTER
RALEIGH NC 27699-1040

PHONE: 919-733-2655
FAX: 919-733-2837

DR. WEIMIN YE
NEMATOLOGIST

DR. COLLEEN HUDAK-WISE
DIVISION DIRECTOR

STEVE TROXLER
AGRICULTURE COMMISSIONER

Nema Note 3

Note	Comment
3-6	The grower did not provide the name of the variety for the previous tobacco crop on the sample information form. If it was a resistant variety, it was ineffective. Use a nematicide with a rating of 1 or 2.
3-7	Currently available tobacco varieties with resistance to root-knot nematodes will not be effective in controlling this nematode population. Use a nematicide with a rating of 1 or 2.
3-8	<i>Tobacco Beds</i> : Use a soil fumigant regardless of the nematode population. It helps control weeds and soil-borne diseases.
3-9	The grower did not provide the name of the variety for the previous tobacco crop on the information sheet. If it was a resistant variety, it was ineffective, and you should not rely on its resistance in this field. Resample this field prior to planting tobacco, and use a nematicide rated 1 or 2 if the assay indicates the presence of root-knot nematodes.
3-10	In this case, root-knot nematode populations are relatively high on or following a root-knot resistant tobacco variety. Therefore, tobacco varieties with resistance to root-knot nematodes will be ineffective in this field. Sample this field again prior to planting tobacco, and use a nematicide rated 1 or 2 if the assay indicates the presence of root-knot nematodes. Other nematodes that attack tobacco include the lesion nematodes (<i>Pratylenchus</i> species) and tobacco cyst nematodes (<i>Globodera</i> species) in limited areas of the state.

For more information, consult the latest edition of the bulletin *Tobacco Information* published annually by the North Carolina Cooperative Extension Service. The bulletin contains ratings for recommended nematicide treatments. It is available from county Cooperative Extension offices as well as online.

For Additional Assistance

- Call your NCDA&CS regional agronomist or the Agronomic Division office in Raleigh (919-733-2655).
- Visit the NCDA&CS Agronomic Division Web site at www.ncagr.gov/agronomi/.
- Visit your county Cooperative Extension office.