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NEMATODE POPULATION SURVEY OF BLUEBERRY PLANTINGS IN EAST TEXAS

Kim Patten and Jim Starr

Rabbiteye blueberries are attacked by many species of nematodes. The most important of which include root-knot, root lesion, stunt, spiral, stubby-root, and dagger nematodes. If nematode populations are very high, blueberry plant growth, fruit size and yield can be reduced.

No data exists which evaluates the potential threat of nematodes to blueberries grown in East Texas. Since nematodes prefer the same sandy soil that blueberries grow best in, nematodes could be a causative factor in the poor growth seen in some of the new blueberry plantings in the area.

MATERIALS AND METHODS

To evaluate this hypothesis, 15 well established blueberry plantings were sampled and assayed for seven nematode species which may cause problems with blueberry growth. At each planting, 12 inch soil cores were taken from the base of the plant. Twenty cores were collected from each site.

RESULTS AND DISCUSSION

The survey data shown in Table 1 indicates that there was no major problem in terms of nematode population in the blueberry fields sampled. Ring nematodes were by far the most frequently encountered group and had the highest population densities. However, these are generally not very aggressive nematodes. They are usually most frequently involved in poor plant growth of blueberries only when other stress factors (i.e., moisture, temperature, other pathogens) are also affecting plant growth. None of the other nematodes found would likely cause damage at the population levels encountered.

Until a larger number of samples are taken from blueberry plantings throughout the state, it is too early to make any definite conclusions in regards to the nematode problem. At this time, it does not appear that the blueberry grower should be seriously concerned about nematodes.

Table 1. Nematode populations from soil samples taken from established
Texas blueberry plantings in fall, 1985.

Orchard No.	County	Number of Nematodes/500 cm ³ Soil						
		Ring	Spiral	Knot	Root- Stubby- Root	Lesion	Stunt	Dagger
1	Rusk	0	0	0	10	0	0	0
2	Nacogdoches	0	0	0	0	0	0	0
3	Nacogdoches	170	30	10	0	0	0	0
4	Nacogdoches	270	10	0	10	20	0	0
5	Henderson	30	0	0	0	0	0	0
6	Henderson	10	0	0	0	0	50	60
7	Henderson	10	10	0	0	0	50	0
8	Van Zandt	510	2	0	10	0	0	0
9	Smith	570	0	0	0	10	0	0
10	Smith	10	0	0	0	0	0	0
11	Smith	100	0	0	0	0	0	0
12	Smith	1610	0	0	10	0	0	0
13	Smith	210	0	0	0	0	0	0
14	Smith	380	0	0	0	0	0	0
15	Smith	0	0	0	0	0	0	0