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Control of Black Root Rot in Dark Tobacco

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CONTROL OF BLACK ROOT ROT IN DARK TOBACCO

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Reports of the increasing prevalence of black root rot in the areas where dark tobacco types are grown has triggered an accelerated effort from the tobacco research staff to develop and release additional varieties with high resistance to this disease. The high level of resistance to black root rot found in Nicotiana debneyi (an Australian species) is being used as the source of resistance in the breeding program.

At present, we are testing a number of advanced experimental lines of both one-sucker and broad-leaf dark tobacco types which have the N. debneyi resistance to black root rot, as well as mosaic and wildfire resistances. We hope that one or more of the experimental lines of each type will be suitable for release as new varieties.

In the meantime, farmers who have a severe black root rot problem should minimize their losses from the disease by following certain cultural practices. These practices, which aid in black root rot control, can be summarized as follows:

(1) Use a long (3-5 year) rotation where black root rot is a problem.

(2) Plow under cover crops and manure early (at least 6 weeks prior to transplanting) so that decomposition is complete before setting time.

(3) Avoid soils that tend to be cold and wet.

(4) Avoid using the same plant bed site year after year so that disease free plants can be obtained. The use of methyl bromide or steam will kill most of the fungus, but selection of new bed sites each year is still highly recommended.

The best control for black root rot is still a resistant variety. (See U. of Ky. Coop. Ext. Serv. Leaf. 268-C, "Use a Resistant Tobacco Variety.") If such a variety is not available, the preceding cultural practices will certainly reduce the incidence and severity of the disease.

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