Tall fescue helps protect peach trees from nematodes

29 November 2011

Planting tall fescue grass as a ground cover in peach orchards helps protect peach trees from nematodes that attack tree roots, according to U.S. Department of Agriculture (USDA) scientists.

In a study published in the *Journal of Nematology* in 2010, Agricultural Research Service (ARS) plant pathologists Andy Nyczepir at the Southeastern Fruit and Tree Nut Research Laboratory in Byron, Ga., and Susan Meyer at the Nematology Laboratory in Beltsville, Md., tested several tall fescue varieties to find out if they could thwart four troublesome root-knot nematode species--*Meloidogyne incognita*, *M. hapla*, *M. javanica*, and *M. arenaria*.

ARS is USDA's principal intramural scientific research agency, and the research supports the USDA priority of promoting international food security.

In the study, Nyczepir and Meyer found that a commercial tall fescue, MaxQ, prevented *M. incognita* and *M. hapla* from reproducing. *M. javanica* has a low level of reproduction on MaxQ, but *M. arenaria* can reproduce on it.

Traditionally, growers have fumigated peach orchard soils prior to planting and then used a nematode-resistant rootstock. But in recent years, growers have faced tough times that have made it difficult to afford preplant fumigants, such as Telone II or Vapam. Many growers also have difficulty fumigating at the recommended time of year because of conflicts with managing other crops.

In Georgia, rotation with coastal Bermuda grass, which can also be harvested for hay, is recommended for control of root-knot nematode. According to Nyczepir, their studies show that MaxQ may have potential as a preplant control strategy for *M. incognita* and *M. hapla* in southeastern and northeastern areas of the United States. Using this tall fescue as a preplant cover crop treatment may allow growers to reduce the use of chemical nematicides.

Preliminary data from the team's field trials using MaxQ as a preplant cover crop have so far found that peach trees planted after the cover crop are larger than those planted in soil that is not fumigated.

More information: Read more about this research in the November/December 2011 issue of Agricultural Research magazine. www.ars.usda.gov/is/AR/archive … 11/nematodes1111.htm

Provided by United States Department of Agriculture