

MELOIDOGYNE INCOGNITA ON ARROWLEAF CLOVER

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Hasta el presente los nematodos noduladores (*Meloidogyne* Goeldi) no han sido detectados en cultivares de trébol "arrowleaf" (*Trifolium vesiculosum* Savi.). Sin embargo, se han observado estos nematodos en plantas enfermas del cultivar "Meechee" en campos de producción de semillas en Mississippi y en Georgia, U.S.A., y en especial *Meloidogyne incognita* (Kofoid) Chitwood en plantas achaparradas del cultivar "Yuchi". Es opinión de los autores que los nematodos noduladores presentan una amenaza grave para el uso extensivo de cultivares de calidad del trébol "arrowleaf".

Palabras claves adicionales: pastos, forrajes, nematodo de las agallas, fitomejoramiento, enfermedades de plantas, registro de especies.

Disease-free arrowleaf clover (*Trifolium vesiculosum* Savi.) cultivars are higher yielding and productive over a longer period than crimson clover (*T. incarnatum* L.) cultivars which are grown widely in the southeastern United States for winter and spring forage (1, 2, 3, 4) 191-192.

Root-knot nematodes, *Meloidogyne incognita* (Kofoid and White) Chitwood and *M. javanica* (Treub.) Chitwood, have been reported in crimson clover (5, 6). No observation of root-knot nematodes on arrowleaf clover has been reported.

In June 1976, characteristic root-knot nematode damage was found in a seed-production field of 'Meechee' arrowleaf clover in Stone County, Mississippi. Numerous, large root galls were observed on plants sampled throughout the field. No seed harvest could be obtained from this formerly productive stand. Juveniles of *Meloidogyne* sp. were isolated from soil samples taken from this field.

In March 1981, *Meloidogyne incognita* was identified in root galls on stunted 'Yuchi' arrowleaf clover plants sampled from experimental plots on a Tifton loamy sand at the Coastal Plain Experiment Station, Tifton, Georgia. Winter grazing mixtures of wheat (*Triticum aestivum* L. cv. 'Omega 78') and ryegrass (*Lolium perenne* L. cv. 'Gulf Annual') with either crimson or arrowleaf clovers had been seeded on this site on 10 November 1980. The clover species were randomly assigned as the main-plot variable of a split-plot design with four replications. Root galls were observed on both clover species. Crimson clover populations were 60-70% of those anticipated for this mixture. Arrowleaf plants were severely stunted, with many having no more than three to four trifoliate leaves. More than 95% of the arrowleaf clover plants died by 15 April.

Susceptibility to root-knot nematode poses a serious threat to the increased use of both crimson and arrowleaf clovers. Selection for nematode resistance should be a major consideration in arrowleaf and crimson clover improvement.

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