

A Note on Root-knot Nematodes from Chinese Gooseberry

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秋浩烈: 양다래 寄生 뿌리혹선충의 發見 *Korean J. Plant Prot.* 24(2): 115(1985)

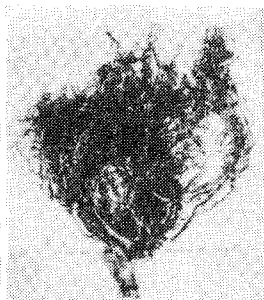
The Chinese gooseberry alias Kiwifruit, *Actinidia chinensis* Planch, in Korea was introduced from New Zealand around 1978. This plant is highlighted as source of farm income for its potential of marketability, and their planted areas are increased more. In Korea, Kiwifruits are mainly cultivated in the south part by climatical factors, especially by temperature.

A. chinensis is chiefly propagated by seed and grafts. The use of grafts has been found successful. In general, the growers use seedlings for grafts. These seedlings are susceptible to attack by root-knot nematodes. No nematode record has previously made from Korea, but in New Zealand the root knot nematode, *Meloidogyne hapla* has been known as important nematode stress factor to seedlings. I

recently found two root-knot nematodes, *M. cruciani* and *M. hapla* from Kiwifruit seedlings planted at Namhae island and Milyang, respectively. *M. cruciani* is firstly recorded to the fauna. There are four *Meloidogyne* species in Korea, i.e., *M. arenaria*, *M. hapla*, *M. incognita* and *M. javanica*. *M. cruciani* can be distinguished by having punctuations around anus in perineal pattern.

Meloidogyne cruciani Garcia-Martinez, Taylor and Smart, 1982... 10 VI, 1985, Namhae island, Gyeongnam province, collected by H. Y. Choo.

Meloidogyne hapla Chitwood, 1949... 31 V, 1985, Milyang, Gyeongnam province, collected by H. Y. Choo.



a-b: Kiwifruit roots infected with *M. cruciani*

c: Perineal pattern of *M. cruciani*

REFERENCES

1. Eisenback, J.D., H. Hirschmann, J.N. Sasser and A.C. Triantaphyllou. 1984. A guide to the four most common species of root-knot nematodes (*Meloidogyne* spp.), with a pictorial key. North Carolina Sta. Univ. & U.S.Agen. Inter. Dev., Raleigh. 48pp.
2. Esser, R.P., V.G. Perry and A.L. Taylor. 1976. A diagnostic compendium of the genus *Meloidogyne*(Nematoda: Heteroderidae). Proc. Helminth. Soc. Wash. 43(2): 138~150
3. Garcia-Martinez, R., A. L. Taylor and G.C. Smart Jr. 1982. *Meloidogyne cruciani* n. sp., a root-knot nematode from St. Croix (U. S. Virgin islands) with observations on morphology of this and two other species of the genus. J. Nematol. 14(3): 292~303
4. 工藤茂道. 1979. キウイフルーツの新技術. 企業栽培への指標. 盤梯廣報社. 東京. 270pp.
5. 栗原昭夫. 1982. Chinese gooseberry (*Actinidia chinensis* Planch). 今月の農業. 26(4): 343~353
6. Schroeder, C.A. and W. A. Fletcher. 1965. The Chinese gooseberry (*Actinidia chinensis*) in New Zealand. Eco. Bot.81~91

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