

Resistance of Sweetpotato Varieties to Root-Knot Nematodes, *Meloidogyne incognita*

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Objectives

This study was conducted to find out the resistance to root-knot nematodes in sweetpotato varieties.

Materials and Methods

Sixty five sweetpotato varieties were screened for the resistance to *M. incognita*, this experiment was tested in ϕ 10 cm clay pot with seven replications in a glasshouse. We planted the sweetpotato plant on July 6, and inoculated 2,000 eggs per plant on July 11, and counted numbers of egg masses after staining the egg masses with 0.0015% Phloxine B solution on Sept. 3.

Results and Discussion

Sixty five sweetpotato varieties were screened for the resistance to root-knot nematodes, *M. incognita*. The tested sweetpotato varieties showed different degrees of resistance, the Regal, Wonmi, Hongmi, Juhwangmi, Mokpo 23, Mokpo 47 and Muan 11 were resistant, the Sinjami and others ten varieties were middle resistant, the Singeonmi and others thirteen varieties were middle susceptible, and the Yulmi and other twenty nine varieties were susceptible to the root-knot nematodes, *M. incognita* (Table 1).

Table 1. The Degree of resistance of sweetpotato varieties to root-knot nematodes, *M. incognita*

resistance degree ¹⁾	varieties
R	Regal, Wonmi, Hongmi, Juhwangmi, Mokpo 23, Mokpo 47, Muan 11
MR	Sinjami, Zami, Chinmi, Gogeonmi, Mokpo 46, Mokpo 24, Mokpo 20, Mokpo 18, Muan 5, Muan 3, MI9709-30
MS	Singeonmi, Borami, Jinhongmi, Jeungmi, Saengmi, Hwangmi, Mokpo 44, Mokpo 34, Mokpo 31, Mokpo 22, Mokpo 19, Muan 7, Muan 6, MI9710-05
S	Yulmi, Sinchunmi, Sinhwangmi, Younmi, Gunmi, Shinyulmi, Poongmi, Seonmi, Eunmi, Shinmi, Hayanmi, Mokpo 45, Mokpo 43, Mokpo 42, Mokpo 36, Mokpo 32, Mokpo 28, Mokpo 25, Mokpo 21, Muan 4, Muan 2, Muan 1, MI0701-01, MI9702-01, MI9709-09, MI9728-02, 99IT04-02, 99IT81-1, MI9710-06, MI9714-08

1) resistance degree; R(resistant) : 0-10, MR(moderate resistant) : 11-30, MS(moderate susceptible) : 31-100, S(susceptible) : over 101 nematodes egg masses per root by Sasser, 1985

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