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SOME WEED HOST-PLANTS OF THE NORTHERN ROOT-KNOT NEMATODE *MELOIDOGYNE HAPLA* IN HUNGARY

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Summary. Eighteen weed plants were found to be hosts for *Meloidogyne hapla* on the sandy soil in the Danube-Tisza Mid-Region in Hungary. *Convolvulus arvensis*, *Galinsoga parviflora*, *Oxalis corniculata*, *Portulaca oleracea*, *Solanum nigrum* were the most heavily infested weeds. Six species were new hosts for *M. hapla*.

Many weed plants are included in the host range of *Meloidogyne hapla* Chitw. (Faulkner and McElroy, 1964; Goodey *et al.*, 1965; Potter *et al.*, 1972; Högger and Bird, 1974; Carter, 1985). These plants provide the means of survival for populations of the nematode which are sources of infection of cultivated plants. We investigated the infestation of different weed plant species in the Danube-Tisza Mid-Region, Hungary where high population densities of *M. hapla* were known to occur.

Weed plants collected from several different fields (back-gardens with different cultivated plants in Cegled, Keckemet, Lakitelek, and vineyards in Miklostelep) were taxonomically identified and examined for root-knot nematode infestation. Galls and egg-masses were indexed according to the Taylor and Sasser (1978) scale, female perineal patterns were prepared from each specimen and used in the identification of the species (Eisenback *et al.*, 1981).

Weeds found to be hosts for *M. hapla* are listed in Table I. *Chenopodium album*, *Convolvulus arvensis*, *Galinsoga parviflora*, *Portulaca oleracea* and *Solanum nigrum* were the

TABLE *Some weed host-plants of the Northern Root-knot Nematode* Meloidogyne hapla *in Hungary.*

Plant species	GI/EI	Location
Asclepias syriaca L.	2/1	Miklóstelep
Ballota nigra L.*	2/1	Miklóstelep
Chenopodium album L.	5/5	Kecskemét, Lakitelek, Miklóstelep
Convolvulus arvensis L.	5/5	Cegléd, Miklóstelep
Crepis setosa Hall.	1/0	Cserkeszölö
Erodium cicutarium (L.) L'Herit.	1/0	Miklóstelep
Fagopyrum esculentum Noench.*	1/0	Miklóstelep
Galinsoga parviflora Cav.	5/5	Miklóstelep, Soroksár
Lamium amplexicaule L.	3/2	Miklóstelep
Melandrium album (Mill.) Gorke*	2/1	Miklóstelep
Oxalis corniculata L.	4/3	Miklóstelep
O. europea L.*	5/5	Lakitelek
Portulaca oleracea L.	5/5	Kecskemét, Lakitelek, Miklóstelep
Salsola kali L.*	2/1	Miklóstelep
Solanum nigrum L.	5/5	Cegléd, Kecskemét, Miklóstelep
Sonchus arvensis L.	2/1	Miklóstelep
Stellaria media (L.) Will.	2/1	Miklóstelep
Taraxacum officinale Weber	2/1	Lakitelelc, Miklóstelep

GI = gall index; EI = egg-mass index according to Taylor and Sasser (1978): 0-5 scale, 0 = no galls or egg-mass; 1 = 1-2 galls or egg-masses, 2 = 3-10, 3 = 11-30, 4 = 31-100, 5 = more than 100 galls or egg-masses per root system; * = new host for *M. hapla*.

most heavily and most frequently infested weeds in the sampled fields. These weeds are commonly occurring in Hungary (Ujvárosi, 1973). The other weed plants were slightly infested.

Ballota nigra, *Crepis setosa*, *Fagopyrum esculentum*, *Melandrium album*, *Oxalis europea*, *Salsola kali* are new hosts for *M. hapla*.

These data also indicate that weed control is useful in helping to reduce *M. hapla* populations.

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