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## CARYO-PHENOTYPES OF *DITYLENCHUS DIPSACI* IN CHILE

by

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Four caryotypes ( $n=6$ ,  $2n=24$ ,  $4n=54$  and  $4n=60$ ) of the stem nematode, *Ditylenchus dipsaci* (Kuehn) Filipjev, are known in Europe (D'Addabbo Gallo *et al.*, 1982).

Chromosome numbers were counted in two populations of the stem nematode, collected in Chile, to ascertain their similarity with the European ones. One of the populations was collected from an alfalfa field, near Santiago in the Region Metropolitana by Ing. Agr. A. Guiñez, and the other from an onion field, near Valparaiso in the V Region by Ing. Agr. E.M. Tapia V.

Nematodes were extracted from plant tissues; male gonads were dissected and stained in acetic orcein, propionic orcein and Feulgen for chromosome counts; measurements were taken of specimens of either sex fixed in hot 5% formalin and mounted in anhydrous glycerine.

Chromosome counts revealed the presence of two caryotypes: one associated with alfalfa, in which  $2n=12$ , and the other associated with onion, in which  $2n=24$ . Biometric characters of the two populations are listed in Table I.

Damage caused by *D. dipsaci* on crops in South America has only recently been reported. These observations would indicate that Chilean populations of this species might have a North American or European origin (Hooper, 1972).

### Literature cited

- D'ADDABBO GALLO M., MORONE DE LUCIA M.R., GRIMALDI DE ZIO S. and LAMBERTI F., 1982 - Caryo-phenotype relationships in *Ditylenchus dipsaci*. *Nematol. medit.*, 10: 39-47.  
HOOPER D.J., 1972 - *Ditylenchus dipsaci*. C.I.H. Descriptions of Plant Parasitic Nematodes. Set. 1, No. 14, 4 pp.

TABLE I - *Biometric characters of Ditylenchus dipsaci from Chile.*

Characters (Average $\pm$ Standard Deviation)	Plant host			
	Alfalfa		Onion	
	♀♀	♂♂	♀♀	♂♂
n	20	20	7	4
L mm	1.2 $\pm$ 0.1	1.1 $\pm$ 0.1	1.1 $\pm$ 0.1	1.0 $\pm$ 0.1
a	44 $\pm$ 2.6	49 $\pm$ 3.9	45 $\pm$ 3.5	51 $\pm$ 2.3
b	5.9 $\pm$ 0.5	5.8 $\pm$ 0.4	5.8 $\pm$ 0.6	5.8 $\pm$ 0.7
c	15 $\pm$ 1.6	15 $\pm$ 1.4	15.2 $\pm$ 1.4	13.6 $\pm$ 0.6
c'	5.4 $\pm$ 0.5	4.7 $\pm$ 0.4	5.0 $\pm$ 0.7	5.1 $\pm$ 0.4
V	81 $\pm$ 3	—	79 $\pm$ 5	—
T	—	70 $\pm$ 5.2	—	65 $\pm$ 1.7
Stylet $\mu$ m	11.3 $\pm$ 0.5	11.5 $\pm$ 0.4	11.2 $\pm$ 0.5	11.5 $\pm$ 0.4
Spicules $\mu$ m	—	28.5 $\pm$ 1.8	—	28 $\pm$ 1.2
Tail length $\mu$ m	77 $\pm$ 5.3	72.5 $\pm$ 3.9	74 $\pm$ 5.8	75 $\pm$ 1.6