Hanseniella sp. (Symphyla), A SOIL BORNE PEST OF RANGPUR LIME (Citrus limonia Osbeck) IN VIÇOSA, STATE OF MINAS GERAIS*

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In Brazil the principal soil pests of rangpur lime (Citrus limonia Osbeck) are Insecta and Nematoda, to which an arthropod Hanseniella sp. (Scutigerellidae) is added.

The symphilans mencioned in the literature as occuring in Brazil are: Symphylella antennata (Hansen, 1903) Bagnall, 1913 from meridional Brazil, Symphyllelopsis brasilienses Juberthie-Jupeau, 1962 and Hanseniella longisetis Juberthie-Jupeau, 1962 from Petrópolis, Hanseniella unguiculata (Hansen, 1903) Bagnall, 1913 from Rio de Janeiro and Hanseniella sp. from Viçosa.

In 1905, in the United States of America, WOODWARTH (7) observed Scolopendrella immaculata causing damage to growing crops and since then several works have been published describing symphylans as a soil borne pest of crops. LOUREIRO and CRUZ FILHO (5) observed, for the first time, Hanseniella sp. as a pest of coffee roots. LOUREIRO and GALVÃO (6) observed, for the first time in Brazil, Hanseniella sp. causing

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injury to the coleoptile and radicule of rice seedlings grown with sprinkler irrigation. As a consequence, the emergence was reduced about 90 percent. LOUREIRO (4) described some symptoms of the roots of coffee seedlings and of plantings as old as 1 year under field condition which were attacked by Hanseniella sp.

In May, 1970, in the Department of Pomology of the Universidade Federal de Viçosa, eight seed beds, 10 X 1 X 0,20 m, were prepared using 10 kg. of compost per square meter. In June, 1970, 6kg. of rangpur lime seeds (about 81,000 seeds) were planted in rows 10 cm apart, running the length of the seeds beds. Aproximately 100 seeds were sown in each row. After planting, needed irrigations were made with a watering can. To prevent the escape of moisture so that the seeds would not dry out, the beds were mulched with vegetable matter. The objetive was to use the rangpur lime as a stock on which to graft scions of different varieties of citrus trees.

On September 10, 1970 the emergence observed was less than 2 percent and on these symphilans were observed causing injury to seeds, coleoptile and radicules (figures no. 1 and 2).

A portion of the symphylans captured with entomological aspirator were preserved in liquid preservative and the other portion is being maintained under laboratory condition, in the Department of Zoology. The identification of Hanseniella sp. was made according to works of ATTEMS (1), BAGNALL (2) and EDWARDS (3).

RESUMO

Hanseniella sp. (Symphyla) é constatada, pela primeira vez no Brasil (Viçosa, Estado de Minas Gerais) como praga do limão rosa (Citrus limonia Osbeck). Os espécimes foram capturados em sementeiras, causando danos às sementes, coleóptilos e radículas, reduzindo a emergência a menos de 2%.

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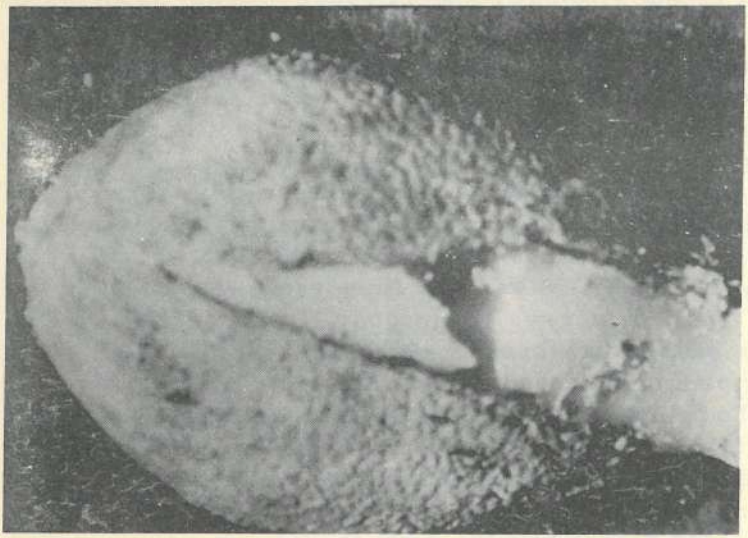

FIGURE 1 - Rangpur lime seed, damaged by Hanseniella sp., often fails to germinate or produces a pale, weak seedling (9.5 X).

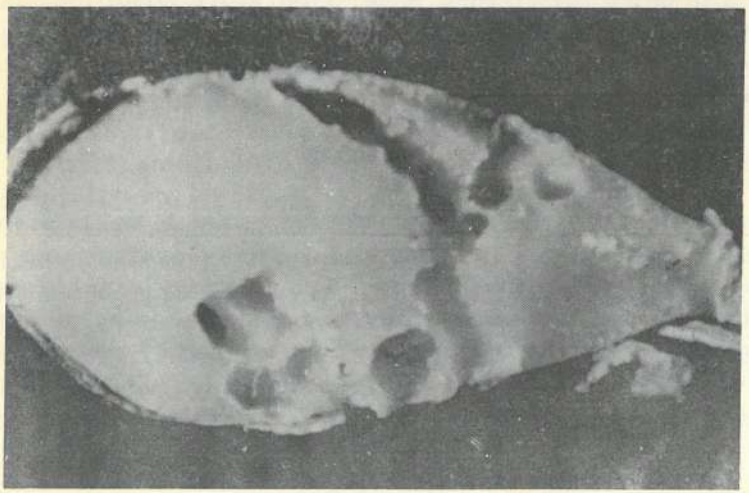

FIGURE 2 - Longitudinal section. Symphilan borrows in albumen of rangpur lime seed (11 X).

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