

*DITYLENCHUS DIPSACI* ON GARLIC (1)

by

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The nematode *D. dipsaci* (Kühn) Filipjev is the second pest in importance to the garlic crops of Spain.

The problem is severe in irrigated fields where different species are used in rotation. A study on the physiological races of the nematode was undertaken. Twenty four different plant species were inoculated, when very young, pouring fourth stage larvae on the roots. Two different, a Spanish and a Californian, isolates from garlic were compared with one English oat race. The pots were maintained in a greenhouse for three months at moderate to low temperature. The plants were examined for eggs and active forms. The results show that the garlic isolates produce a response similar to that of the « onion race ».

The host range seems quite limited and besides the onion, the broadbean is always a potential danger in the crop rotation. Broadbeans do not show striking damages in the field, but they are very affected under greenhouse conditions. In both cases, the broadbean maintains very heavy populations.

In the affected plants the nematode occurs mainly around the discal true stem and in the wrapper leaves closeby, but when very abundant, it may invade the whole plant. This is not the case with the best heads used for seed, which usually have very slight infestations.

The garlic cloves root laterally through the lowest part on the nutrient wrapper leaves producing cracks up to the discal true stems. This appears to be the major path for infestation, thanks to a definite chemical attraction.

Entry behavior and significance of the host range are discussed.

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