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**STEM NEMATODE *DITYLENCHUS DIPSACI*  
AT *ALLIUM CEPA* CROPS**

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The stem nematode *Ditylenchus dipsaci* (Kuhn, 1857) is a polyphagous species, widespread globally. According to our previous research, in the Republic of Moldova, the species *D.dipsaci* is widespread in *Allium sativum* crops. On individual lots, the extensivity being 78–100 %, which led to total crop losses. In the present research are indicated data about the spread of the *D. dipsaci* strain nematode.

*Allium cepa* plants, also grown in monoculture conditions. During the vegetation period - end of May - beginning of June (period of technical ripening), outbreaks of this species of phytoparasitic nematodes were detected, with an extensivity of 30–40 %. To determine the intensity of *D.dipsaci*, onion bulbs with obvious external symptoms of ditylenchosis caused by *D.dipsaci* were selected. The extraction of nematodes was performed with the application of Baermann funnels, and their density was calculated with the application of the de Grisse chamber. The results of the analyzes showed that, in the infested plants tissue in the early stages of ditylenchosis, takes place a popular monotypic primary of plant tissue only with the obligatory parasite of this crop - *D. dipsaci* (females, males, larvae, eggs). The density is higher in the protective leaves of the bulb, which often remain in the soil during the harvesting process and present a danger in case of repeated planting on the same lot. It was calculated that the density of *D.dipsaci* in such bulbs was  $34.12 \times 10^3$  units / gram of infested tissue, of which the highest percentage - 42%, belongs to the larvae in different stages of development (L2; L3; L4).

It should be noted that *D.dipsaci* parasitizes *Allium cepa* crops throughout the year, both during the growing and storage season, especially when the rules of permanent ventilation and maintaining a constant temperature of 1–5 °C are not respected. In laboratory analyzes performed on onion bulbs obtained from individual lots, which were collected during storage (at a period of 2–3 months after harvest, without complying with storage rules), cases of invasion extensiveness of 75–80 % were observed. Researches on the nematodes density of infested bulbs in the initial stages of ditylenchosis showed that, one gram of tissue contains about 975 individuals, of which: females – 29 %; males – 33 %; larvae – 38 %. Also, bulbs infested in advanced stages of ditylenchosis have been investigated. The results of the analyzes showed that in such bulbs *D. dipsaci* is replaced by saprophytic nematodes, most have bacteriovorus feeding mode. In such bulbs the parasitic nematodes are associated with the saprophytic ones, with the microorganisms and with the mites. Among the most common mites is the species *Rhizoglyphus echinopus*. Out of the total of  $2.8 \times 10^3$  nematodes, 53.6 % belong to *D. dipsaci* individuals (females, males, larvae), and 46.4 % to species of saprophytic nematodes, most of them being of the order Rhabditida.

Such bulbs are in the process of total transformation into waste, which leads to losses of crops from deposits. In order to avoid the spread of *D. dipsaci* nematode, it is recommended to plant them in polyculture conditions, use of anthelmintic crops for a period of 3–4 years, with the introduction of crops resistant (potatoes, tomatoes, eggplant, corn) to this parasite and to plant nematode-free seed material.

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