ABSTRACTS

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c.7.69 NEMATOPHAGOUS ACTIVITY OF PREDACIOUS FUNGI *DUDDINGTONIA FLAGRANS* AND *ARTHROBOTRYS OLIGOSPORA* IN THE FLUID PREPARATION

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In the investigations on the predacious fungi as agents of biological control of zooparasitis nematodes the dry fungal preparations were mainly used. The aims of our investigation were to estimate the viability of the fluid preparations of predacious fungi *Duddingtonia flagrans* and *Arthrobotrys oligospora* after feeding them to horses and to examine the nematode-trapping activity in fecal cultures *in vitro* against strongylid infections larvae.

Fluid preparations of two strains of *Duddingtonia flagrans* and one strain of *Arthrobotrys oligospora* were used in experiment. They were obtained by the deep cultivation method. Each of three horses naturally infected by strongylid nematodes were fed on 700 ml of the preparation mixed with chopped corn. Daily the fecal samples were collected from each horse and then cultivated in the thermostat during 22 days. The estimation of decrease of number of strongylid infective larvae was carried out on the 6th, 10th, 14th, 18th and 22nd days of culturing. Fecal samples collected from the same horses on a day before experiment were used as the control.

The predacious fungi have been revealed in fecal cultures *in vitro* on the 2nd day of experiment. The nematophagous activity against infective larvae of horse strongylids in fecal cultures was maximum on the 4th-6th day. On the 14 day of cultivation up to 86-87% of larvae were eliminated by the fungi comparing with 13-29% of natural larval mortality in the control cultures.

The results obtained confirm the ability of fluid preparations of predacious fungi *Duddingtonia flagrans* and *Arthrobotrys oligospora* to save viability and nematophagous efficiency after passage through the digestive tract of horses. These preparations thus may be recommend for industrial use for biological control of zooparasitic nematodes.