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POSTER PRESENTATION

Prevalence of microsporidian infection of the European corn borer, *Ostrinia nubilalis* Hbn. (Lepidoptera: Pyralidae) at the Krasnodar Territory

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Introduction: Incidence of microsporidia infecting of the European corn borer (ECB), *Ostrinia nubilalis* in Eurasia has been studied not enough. Only few reports are known from Italy, France, Poland, Czech Republic and Slovakia. In present work we compare prevalence rates of different geographic insect populations inhabiting different host-plants at the Krasnodar Territory.

Methods: Microscopic analysis of larvae, collected in field and perished under lab conditions was carried out with the use of fluorescent microscopy. Preparations of spores fixed by absolute methanol were stained with DAPI. Spore sizes were evaluated using Carl Zeiss Axiovision 4.6.

Results: Microsporidian infection of ECB in Russia was revealed for the first time. DAPI staining confirmed presence of *Nosema*-like spores with markedly stained diplocarya and weakly stained cytoplasm and exospore, as well as unstained zone of endospore. Prevalence rates of last instar larvae varied from 4.8 to 12.5%. We have compared prevalence rates for larvae collected i) near west vs east borders of the Krasnodar Territory, ii) during 2005 vs 2006, iii) from dicotyledonous (cocklebur, mugwort) vs monocotyledonous (maize) hosts. Microsporidia prevalence rates failed to differ significantly in all cases compared.

Conclusions: Microsporidia are widespread parasites in ECB populations inhabiting the south of Russia. Since *Nosema pyrausta* shows high efficiency as controlling ECB in North America, further research of microsporidia of ECB in Russia should be of importance. Supported by RFBR grants 06-04-48265, 07-04-92170, and a grant of the President of Russian Federation MK-653.2007.4.