ABSTRACT

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Title of diploma thesis: Ovine hemonchosis – results of its laboratory control in course of experimental infection

The anthelmintic resistance is a matter of interest in many professional workplaces, as it creates high losses for practical farm animals breeding and it represents a potentially limiting factor for the existence of their own holdings. The mechanisms leading to the anthelmintic resistance emergence are studied, and among them there is also the possibility of induction of biotransformation enzymes, that the parasites (round worms) use to overcome the contact with what is xenobiotics for themselves. Parasitic models and in the long term also *Haemonchus contortus* are used. Three strains of the parasite are used in the Department of Biochemical Sciences Faculty of Pharmacy, Charles University in Hradec Kralove: fully susceptible, fully resistant, resistant only to benzimidazole anthelmintics. Parasites are experimentally reared in sheep. The aim of this thesis was to experimentally document parasitoses experimental course all of these strains by parasitological methods. L_3 larvae *Haemonchus contortus* were given to the sheep, and individual animal faeces collected rectally quantitatively determined Parasitology award (number of eggs / 1 gram faeces). The interval from 12 to 27 days (21 days on average) between infecting the animals with L3 larvae and the excretion of eggs was detected. At the end of each study the animals were removed from experiment and the adult *Haemonchus contortus* were collected from their abomasums. These worms were subsequently used for further research on anthelmintic resistance at the Department of Biochemical Sciences Faculty of Pharmacy, Charles University in Hradec Kralove.