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MULTIDISCIPLINARITY FOR PARASITES,
VECTORS AND PARASITIC DISEASES

Edited by
S. Mas-Coma, M.D. Bargues, J.G. Esteban and M.A. Valero

PROGRAMME AND ABSTRACTS

VALENCIA, SPAIN
18-23 JULY 2004

649 (P) The contamination of horseboxes with Strongylidae infective larvae

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Parasitic nematodes from the family Strongylidae are the prevalent group of horse parasites in Ukraine. Horses kept in stables are known to be less infected with strongylids than horses kept on pasture. However, the rise of strongylid infection often occurs despite the regular anthelmintic treatment of the former horse group. The litter of stables is supposed to be the main source of horse infection with the strongylid infective larvae (L3). The aim of our studies was to investigate separate parts of horsebox contamination with strongylid's L3 during a year. Investigated were horseboxes of horses kept in stables only and in stables and on pastures. Ten personal horseboxes at Kyiv State Hippodrome (horses kept in stables only) have been examined for the presence of L3 during March - December 2003. Fifteen horseboxes at Dubrovsky Horse Farm (horses kept in stables and fed on pasture) were examined in July and August 2003. In each horsebox, samples were collected monthly from 6 plots: 1- entrance, 2- manger, 3- watertrough, 4-centre, 5-"toliet", and 6-walls. Twenty grams of litter from each litter sample (100-150 g) were used for L3 extraction. Quantity of L3 obtained was recalculated for 1 kg of litter. Presence of larvae on the walls was determined with use of sticky paper. Horse infection with strongylids was determined using McMaster's method (Herd 1992) as number of strongylid eggs per one gram of faeces (EPG). The infection of horses with strongylid nematodes at Kyiv State Hippodrome appeared to be lower (EPG=25-200) than that of horses from Dubrovsky Horse Farm (EPG=525-1225), apparently because of regular anthelminthic treatments with aversektin preparations at the former place. The maximum contamination of litter with strongylid infective larvae in the individual horseboxes was 96-566 L3/kg at Kiev Hippodrome and 260 - 6900 L3/kg at Dubrovsky Horse Farm. The following parts of horseboxes were more heavily contaminated with L3: "toilet" (30.1% of all L3 found), entrance (26.7%), and centre (25.3%). No larvae were found on horsebox walls. The largest number of larvae was observed in summer: 96-566 L3/kg at the Kiev State Hippodrome and 260 - 6900 L3/kg at the Dubrovsky Horse Farm. The results obtained clearly demonstrate that the horsebox may be a source of horse infection with strongylid L3 during the whole year. The horsebox contamination with L3 depended on the degree of horse infection with Strongylidae. Disinfection of horseboxes in summer should reduce sufficiently the infection of horses.