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Abstract Book

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PS03.57 Effect of Different Faecal Concentrations of Anthelmintics on Mycelial Growth of the Biological Control Agent *Duddingtonia Flagrans*

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Duddingtonia flagrans acts as biocontrol agent by preying on pre-parasitic nematode larvae in animal faeces. This fungus could be exposed to anthelmintic drugs eliminated in faeces, but little is known as to whether these drugs could alter the fungal development and its efficacy. Thus, the aim of this study was to determine the in vitro effect of certain anthelmintics on the growth of this fungus. In two assays, active ingredients diluted in methanol of the five anthelmintic drugs most commonly used in Argentina were used in concentrations reported as found in bovine faeces: levamisole, 1 ppm; albendazole, 0.027, 0.054 and 1 ppm; fenbendazole, 0.027, 0.054 and 1 ppm; ricobendazole, 1 and 2.77 ppm; ivermectin, 1, 2 and 10 ppm. Each of these drug concentrations were added to corn meal agar (CMA) 2% and then poured on Petri dishes (n=12/concentration). Plates with CMA and containing only methanol and only *D. flagrans* were used as control. All plates were inoculated with 1 cm² of fresh *D. flagrans* mycelia growing in CMA, and incubated at 27°C for 7 (assay 1) or 12 (assay 2) days. The fungal growth rate was determined every 24 h by measuring the radial growth. Similar fungal growth was obtained from the control plates containing only *D. flagrans* (6.79 to 8.12 mm/d), only methanol (6.5 to 7.17 mm/d), levamisole (6.49 to 6.99 mm/d) and both concentrations of ricobendazole (6.51 and 7.53 mm/d). Ivermectin slowed significantly (P=0.0181 – P=0.0351) the fungal growth in all tested concentrations (6.14, 5.67 and 6.29

mm/d). Albendazole reduced the mycelial growth only at 1 ppm (0.89 mm/d, P<0.0001), while fenbendazole affected negatively the fungal growth in all concentrations (0.46 to 2.19 mm/d, P<0.0001). These results represent a first step on elucidating whether anthelmintics could be used in very specific situations while biological control is applied.

PS03.58 Evaluation of Attractiveness and Specificity of New Plastic Blue Screens for Monitoring and Control of *Stomoxys Calcitrans* Populations

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Stomoxys calcitrans is considered as a major pest of livestock worldwide. Insecticides have been extensively used to control this pest but resistance to these chemical compounds is now reported in many countries. Therefore, a more sustainable and efficient control is needed. A lot of different traps have been tested to catch stable flies such as Vavoua and Nzi traps or Alsynite sticky traps. However, low numbers of stable flies are caught per day and per trap with these devices (usually less than two hundreds individuals per day and per trap), which is sufficient for establishing a population's dynamics but not for control. The objective of this study was to evaluate the attractiveness and the specificity of seven different new types of blue screens (one polyester fabric blue screen and six plastic blue screens) for stable flies. These screens, showing slight differences in their reflectance around 460 nm, were tested during summer 2016 in southwestern France. Height of the screen and its east or west orientation were also considered. High levels of *S. calcitrans* captures were recorded during this study (from 141 to 7301 individuals per blue screen and per day) whereas the numbers of