



WAAVP

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Dedicated to the legacy of Professor Arlie C. Todd

Sifting and Winnowing the Evidence in Veterinary Parasitology



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Abstract Book

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time of 4320 and 2400 minutes respectively. It was observed that larval mortality time is dose dependent for most solvents. Among the liposoluble solvents, xylol presented the shortest mortality time of larvae ranging from 0.2 min (100% dose) to 185 min (1.56% dose). Among the water soluble solvents, acetic acid had the shortest mortality time ($p < 0.05$) with variation from 0.6 min (100% dose) to 97 min (1.56% dose). We concluded that the solvents used in acaricidal products can influence the mortality of larvae.

PS02.46 Exotic and Disease Vectoring Ticks on White-Tailed Deer in Southern Texas

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White-tailed deer were scratch inspected for ticks during the 2018 hunting season at the Laguna Atascosa National Wildlife Refuge in Cameron county TX. Only four of the 73 deer examined were negative for infestation by ticks. A total of 3380 ticks were counted and identified to one of seven species. Five of the encountered tick species are precinctive to the neotropics and just enter the United States in the border area of Texas: *Amblyomma inornatum*, *A. mixtum*, *A. tenellum*, *Anocentor nitens* and *Boophilus microplus*. The latter two species, the tropical horse tick and the southern Cattle Fever Tick, both one-host ticks, are important economic pests of livestock and thus, it is of some concern that they use white-tailed deer as a sylvatic reservoir. Notably, although deer have been reported as an incidental host, the very high numbers (2922) including larvae and nymphs as well as adults, suggests that deer are the native host of the "Horse tick" given that horses are not native to the western hemisphere and *A. nitens* does not occur in the Old World. The gulf coast tick, another pest of livestock was common and coexistent with the other *Amblyomma* spp. in this deer herd. Finally, the detection of 21 specimens of *Ixodes scapularis*, the vector of Lyme disease, suggests that this species may not be as rare in south Texas as previous surveys have indicated.

PS02.47 Efficacy of Different Concentrations of *Duddingtonia Flagrans* Chlamydo spores against Different Levels of Faecal Egg Counts of Cattle Gastrointestinal Nematodes

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The nematophagous fungus *Duddingtonia flagrans* is a biocontrol agent that reduces the number of infective larvae of gastrointestinal nematodes in animal faeces, thus, lowering pasture infectivity. However, the minimum amount of fungal chlamydo spores in faeces required for this effect is largely unknown. The following in vitro study aimed to determine the fungal efficacy of four different chlamydo spores concentrations against three different levels of cattle faecal egg counts. The chlamydo spores concentrations tested were 11000, 6250, 3000 and 1000 chl/g faeces. Faeces from naturally-infected calves were used to obtain faecal egg counts of 100, 480 and 840 epg. Ten faecal cultures of 10 g faeces each were set up for each chlamydo spores concentration/ faecal egg count combination, plus one control group for each faecal egg count level without chlamydo spores. All cultures were kept at room temperature (20-26°C) for two weeks and then L3 were recovered from each individual culture by overnight baermannisation, counted and identified. The larval reductions by *D. flagrans*, in decreasing order of chlamydo spores concentrations, were: 100% ($P < 0.0001$), 99% ($P < 0.0001$), 92% ($P = 0.0032$) and 77% (ns) compared to the 100 epg control; 100% ($P < 0.0001$), 98% ($P < 0.0001$), 98% ($P = 0.0002$) and 92% (ns) compared to the 480 epg control; and 100% ($P < 0.0001$), 100% ($P < 0.0001$), 99% ($P < 0.0001$) and 96% (ns) compared to the 840 epg control. There were no differences between the three levels of faecal egg counts at any given fungal concentration, which indicates that the numbers of nematode eggs in cattle faeces would not be a determining factor for the efficacy of *D. flagrans*. These