EFFICACY OF MONEPANTEL (ZOLVIX®) ON INTERNAL PARASITE CONTROL ON SHEEP PRODUCTION SYSTEMS FROM URUGUAY

Jorge Bonino¹, Jorge Bonino Leaniz², Octaviano Pereira Neto³

¹Private Practice, ²Universidad de la República Oriental del Uruguay, Facultad de Veterinaria, Montevideo, Uruguay, ³Novartis Animal Health, São Paulo, Brazil

Gastrointestinal parasites are the most important source of loses on sheep production systems, decreasing productivity indexes and increasing mortality rates. Anthelmintic drugs are relevant tools for nematode control and for that they need present high efficacy, be easy to use, safe and with an adequate cost benefit ratio. Selection of resistant parasites, as a result of continued use, has been decreasing sensitivity of internal parasites to current molecules, demanding a continuous development of new drugs. Monepantel, the newest member of the Amino Acetonitrile Derivatives group (AAD), has been launched in various markets around the world. The aim of this study was evaluate the efficacy of Monepantel on internal parasite control on Uruguay’s flocks with variable levels of anthelmintic resistance (AR). Trial was conducted during Jan to Feb 2010, involving 13 sheep flocks on Uruguay, with known AR status. Animals were 910 hoggets (18 months-old) randomly assigned into treatments (10 hoggets/ treatment/ farm). On day 0 (D 0), animals was identified, weighed, sampled (2g of material fecal from rectum) and received an oral dose of 3.8 mg/kg of albendazole (ABZ) or 7.5 mg/kg of levamisole (LVM) or 200 µg/kg of ivermectin (IVM) or 2.5 mg/kg of closantel (CLT) or 200 µg/kg of moxidectin (MXD) or 2.5 mg/kg of monepantel (MNP), according their treatment group. One group per farm kept untreated as control (C). On laboratory, eggs were counted by Modified Mac Master Test with sensitivity of 50 and the % of faecal eggs count reduction (% FECR) was determined by following formula: % FECR = (1 - XT"10"/XT"0" * XC"0"/XC"10") * 100, were XT and XC are arithmetic mean on D 0 or D +10 for treated or control group. Larval culture was done by the Method of Corticelli Lai and parasites genera identified. The FECRT demonstrated a variable response to anthelmintics drugs on all farms where we could observe a general mean of efficacy (and SD) of 68,7% (±25,01), 41,5% (±31,41), 29,5% (±27,25), 45,8% (±32,19), 58,1% (±25,26) and 100%, for ABZ, LVM, IVM, CLT, MXD and MNP, respectively. In conclusion, AR was variable in magnitude, although it has been presented on all farms evaluated, which could represent a need to replace them for newer alternatives. Monepantel (2.5mg/kg) was 100% efficient on FECR for GI parasites, representing a new tool for farmers. Haemonchus spp, Trichostrongylus spp and Oesophagostumum spp were present on all farms, and Haemonchus spp was the more resistant.