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The use of calcium soaps with natural extracts (*Allium sativum* or *Salix babylonica*) as an anthelmintic in goats

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Parasites infections of commercially livestock farms are responsible for economic loses. To combat these effects, most farms administer anthelmintics to their animals at frequent intervals, and without consideration to principles of sustainable integrated parasite management (SIPM). On the other hand, the use of Garlic (*Allium sativum*) and *Salix babylonica* is well known spice with also anti-microbial and anti-parasitical properties. The objectives of this research were to characterize levels of anthelmintic resistance on goats' and to compare the fecal egg count reduction test (FECRT) and percentage of larval development for detecting resistance. To achieve these objectives, nine goats were allocated in each one of the three treatments, the FECR efficacy was used to evaluate resistance status to calcium soaps (CS) performed with *Salix babylonica* extract (CSalix 5% diet), CS performed with garlic (CGarlic 5% diet) and control (Ctrl) as a natural desparasitant over a 28 days period. Faecal samples were collected rectally from all animals weekly (0, 14, 21 and 28 days). Mixed model was used to evaluate the effect of anthelmintic product on body weight (BW), average daily gain (ADG), BW change (BWC), faecal egg count (FEC), and efficacy (PROC MIXED, SAS). Results (Table 1) of the FEC indicated a reduction (P<0.003) and efficiency (P<0.001) to Salix on 67% and garlic 66% compared with the control treatment. The use of calcium soaps in the diet adding garlic or *Salix babylonica* is a viable option to reduce gastrointestinal parasites in goats without compromising the animal health and environmental equilibrium.

Biography

Manuel Gonzalez Ronquillo holds a PhD in Veterinary Medicine from the University of Zaragoza (Spain), I had a postdoctoral fellow at US Dairy Forage Research in Madison Wisconsin and at the University of Wiscosnsin (USA), with a Fullbrigth Garcia Robles scholarship, as well as volunteering for the Organization Of the United Nations at FAO-AGA Divison in Rome Italy, and a degree in Veterinary Medicine and Animal Science at the Autonomous University of the State of Mexico (Mexico).

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