RESUMO SIMPLES - ECTOPARASITOS: SISTEMÁTICA, EPIDEMIOLOGIA E CONTROLE

EFFICACY OF FLURALANER ADMINISTERED ORALLY IN CONTROLLING RHIPICEPHALUS MICROPLUS TICKS IN CATTLE

Thaíne Lopes Bueno (thaine.lopes.b@gmail.com)

Fernanda Ferreira Salgueiro (fernandasalgueirovet@gmail.com)

Hugo Rocha Sabença Dias (hugosabenca@gmail.com)

Laritssa Andrade Pinheiro Magalhães (vetlaritssamagalhaes@hotmail.com)

Fabio Scott (scott.fabio@gmail.com)

Gabriela Ferreira De Oliveira (gabi.ufrrj@gmail.com)

Thaís Ribeiro Correia Azevedo (thaisrca@gmail.com)

The cattle tick, Rhipicephalus (Boophilus) microplus, is one of the main sanitary challenges faced by livestock farming in tropical and subtropical countries, including Brazil, where climatic conditions favor its survival throughout the territory. It is estimated that more than 80% of the global cattle population faces infestations by this ectoparasite. Its parasitism can reduce weight gain, cause anemia, increase the risk of myiasis, and even transmit pathogens such as Babesia bovis, Babesia bigemina, and Anaplasma marginale, etiological agents of the bovine parasitic sadness complex. Due to these impacts, the annual economic losses associated with the tick are estimated at approximately US$3.24 million. Traditional control methods include integrated management practices, such as selection of more resistant breeds, rational herd

management, and pasture rotation, in addition to the use of acaricides. The excessive and inappropriate use of the latter has intensified tick resistance to different chemical classes, limiting the effectiveness of available treatments. In this scenario, isoxazolines have emerged as a promising solution. Fluralaner, a member of this class, has shown efficacy above 90% against R. microplus infestations and was approved in Brazil in 2022 in a pour-on formulation. With the aim of expanding control options and overcoming the challenges posed by resistance, this project proposes to evaluate the use of Fluralaner in a paste formulation for oral administration, exploring its potential in the strategic management of R. microplus in stabled cattle. For this purpose, 16 experimentally infested cattle, aged between six months and two years and weighing between 100 and 300 kg, will be used. The infestation procedure will occur during pre-treatment, on alternate days, from D-25 to D-1. During this procedure, the animals will be restrained for two hours using a halter, rope, and tail tying, ensuring adequate conditions for larval attachment. After ranking on days D-3, D-2, and D-1, the animals will be divided into two groups, Treated and Control, and on day D-0, the treated group will receive oral treatment with Fluralaner. R. microplus infestations will be maintained after treatment until efficacy is less than 80%. Teleogynes will be collected daily after treatment and subsequently analyzed from D+1 to D+84 to assess reproduction and viability. It is expected that orally administered fluralaner will provide rapid and effective control of ticks, favored by its accelerated absorption by the gastrointestinal tract and high systemic bioavailability. The drug's action should result in rapid induction of toxicity and death of ectoparasites, with a minimum efficacy of 80%, in addition to promoting a prolonged effect in controlling infestations.

Palavras-chave: acaricide; isoxazolines; resistance; stable test; treatment.