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Combating Zoonoses: Strength in East-West Partnerships

ABSTRACT BOOK



Poster Presentation – Drug Residues in Food

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Impact of extra-label use of albendazole and fipronil in poultry

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Abstract Content

The increase of argentine poultry production in the last years is closely linked by the use of antiparasitic drugs in order to optimize this production, being the compounds available scarce. Albendazole (ABZ) and fipronil (FIP) are used extra-label for the control of nematode and external parasites, respectively. The goals of the study were: a) to evaluate the ABZ egg residues and its effect on the fertility and hatchability (Study-A); b) to investigate the FIP egg residues profiles after its extra-label administration to laying-hens (Study-B). Study-A: Forty eight (48) breeder hens were randomly divided into four groups and treated with ABZ at either 10, 40 or 80 mg/kg/day in feed over seven days, an untreated group was used as Control. Eggs were incubated under controlled conditions and fertility and hatchability were assessed. Study-B: Hens from a local farm were extralabel treated with FIP in feed. Eggs were collected for a 36 days post-treatment period. In Study-A, while fertility was not affected by ABZ, the hatchability values decreased inversely with the administered ABZ dose level. A statistically significant (P<0.05) reduction on egg hatchability was observed with ABZ treatment at the highest doses (40 and 80 mg/kg/day). In Study-B, residue concentrations of fipronil-sulfone (active metabolite of FIP) were found in yolk egg at higher levels than the Maximum Residue Limits (MRL) allowed. Altogether, these data strongly suggest that extra-label use of ABZ and FIP would generate a high level risk on consumers as well as on poultry production.

Keywords: Albendazole; Fipronil; extra-label; egg residues