Residues of Melamine Persist in Meat of Broiler Fed In-Feed Larvacide after Mandatory Withdrawal Period

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Introduction

Larvacides are commonly used in poultry feed to alter the moulting stage of houseflies (*Musca domestica*) which hatch on droppings, hence reducing the population of flies and smell nuisance in poultry houses.

Cyromazine, an active ingredient in larvacides, has melamine as a metabolite which became a public health concern after the death of 9 infants and hospitalisation of 294,000 others after taking melamine tainted infant formula.

However, cyromazine is widely used to reduce smell from poultry litter and to increase nitrogen content which usually translates to higher weight gains in broilers without the knowledge of its residual effect on tissues of animals.

Residues of in-feed larvacide in broiler tissues was investigated.

Materials and methods

One-hundred and sixty day old Arbor Acre broilers of approximately 40 g body weight were used in the study.

Four diets were formulated to contain cyromazine at 0, 0.25, 0.50 and 0.75 g kg-1 and they were assigned to 4 dietary groups consisting of 4 replicates per treatment of 10 birds each in a completely randomised design for 42-days feeding trial.

A bird per replicate (4 birds/ treatment-1) was sacrificed to harvest tissue for residue determination at week 7, 8, 9 and 10 to establish a 7, 14, 21 and 28 days withdrawal period.

Results

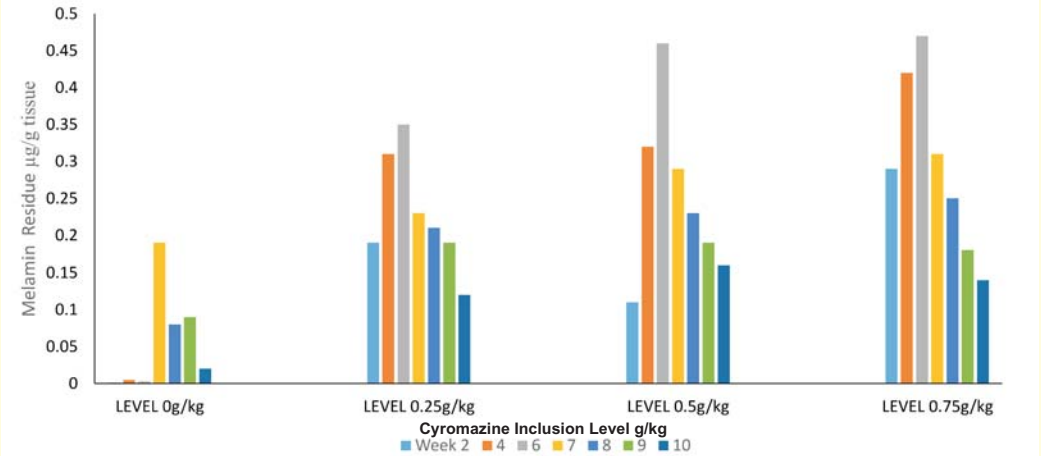

Fig 1: Melamine Residue in drumstick of broiler chickens fed diets containing Cyromazine

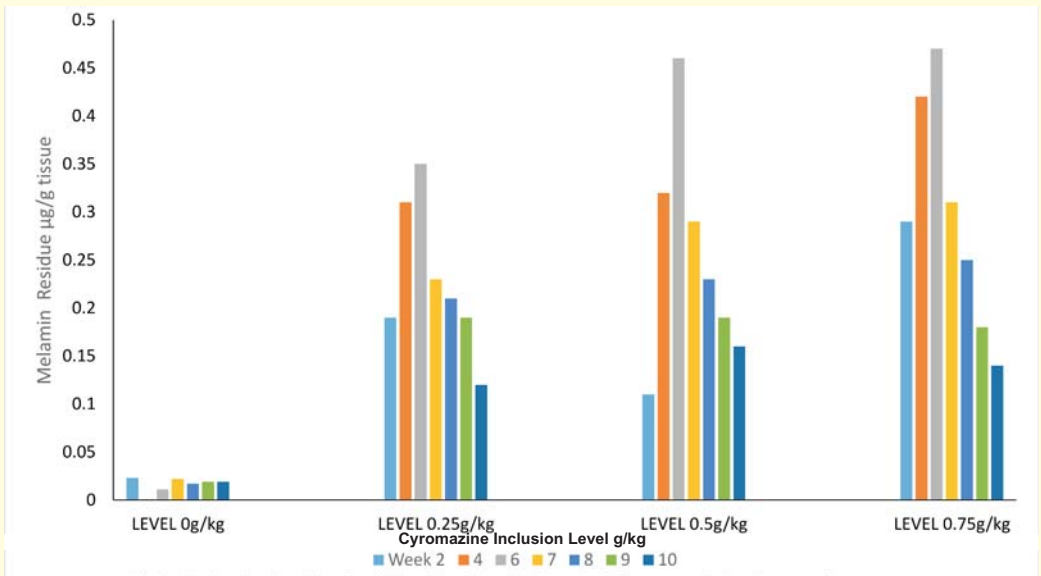

Fig 2: Melamine Residue in thigh of broiler chickens fed diets containing Cyromazine

Melamine residue in meat (drumstick and thigh) were higher in the treated groups than the control group. Although, traces of melamine was found in the control group which might be from the raw ingredient used for compounding feed.

Conclusion

Residues of melamine was left in the tissues of broiler chickens even up to 28 days withdrawal period, which is higher than maximum allowable limit by WHO.

Acknowledgement

This study was funded by the World Bank and the Centre of Excellence in Agricultural Development and Sustainable Environment (CEADESE).