# **Titre d’article**: Anticoccidial resistance in poultry: determination of ionophore sensitivity for Eimeria acervulina and Eimeria maxima isolated from broiler chicken farms in Tizi Ouzou province (Algeria)

**Abstract :**

This study aimed to determine the resistance of coccidia to ionophores used in broiler farms in Tizi-Ouzou province, Algeria. Droppings were collected and recovered Eimeria oocyst isolates were analysed by morphometry to determine their composition, and then inoculated by peros into chicks of the Arbor Acres strain, reared on the ground. Four of six groups of chicks were treated to test the sensitivity of oocysts to four anticoccidial agents added to their growth feeds [(robenidine (33 ppm), monensin (120 ppm), narasin-nicarbazin (80 ppm) and salinomycin (60 ppm)], while the other two groups were controls. The results revealed the presence of total resistance to monensin and robenidine, and partial resistance to salinomycin and the narasin-nicarbazin combination. The lack of sensitivity to monensin and robenidine was unsurprising, given their inappropriate and unreasonable use for years as the only anticoccidial compounds. The appearance o partial resistance to narasin-nicarbazin and salinomycin suggests the development of cross-resistance in the Eimeria population. The possibility of a relatively uniform composition of Eimeria species collected in these farms indicates that Eimeria acervulina and Eimeria maxima develop resistance more quickly to these ionophores. Finally, a control strategy must be rigorously developed by considering other molecules that are alternatives to anticoccidials.