The Impact of Ionophore Choice on Broiler Production Metrics

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Ionophores are anti-parasitic products used in modern broiler production to control *Eimeria*. *Eimeria* causes coccidiosis, a disease that impairs gut health and leads to substantial economic losses[1].

Previous articles in this series have examined the history of ionophores and their mode of action. So what impact does the choice of ionophore have on broiler performance?

Not all ionophores are created equally and despite having very similar modes of action, they differ in their efficacy against *Eimeria* and their impact on water and feed intake[2,3].

In the past, a number of studies have suggested differences in Feed Conversion Ratio (FCR), which may be expected when using one ionophore as opposed to another[4].

Elanco recently undertook a comprehensive study of European field experience data[5]. This study had a particular focus on modern live production systems, current genetics and realistic and measurable KPIs across different geographies.

Working with broiler producers, a dataset was produced containing the anonymised production data from 15 field experiences from 2011 to 2019. All suitable field experiences, regardless of outcome, were included in the study. The dataset contained information from 290 million birds.

The study aimed to establish two key facts. Firstly, what are the daily differences in FCR when using narasin, monensin or salinomycin and, secondly, what is the daily difference in FCR when using a potentiated ionophore (narasin and nicarbazin) verses a non-potentiated ionophore (narasin, monensin or salinomycin)?

Statistical analysis was performed and the following results obtained:

- **Narasin delivers an improvement of -0.14 points FCR per day versus salinomycin**
- **Narasin delivers an improvement of -0.08 points FCR per day versus monensin**
- **Narasin/nicarbazin potentiated ionophore** use, extended by at least seven days over a straight ionophore, **delivers an improvement -0.23 points FCR per day of extension.**

(Notes: T test; p value 0.0001-0.0002. Colloquially, 1 point FCR in broiler production refers to 0.01 change in actual FCR).

It is clear from the analysis that both narasin and a narasin/nicarbazin potentiated product have significant FCR benefits over other ionophore products. Given that small change in FCR can have a big impact on profitability, this study should help producers optimise FCR via their choice of anticoccidial programme.

See this article and references at www.poultrynews.co.uk/elanco-reference