SCD Probiotics®

Case Study Summary – Comparative Trial Results, SCD Bio Livestock® for Broilers

Livestock – Poultry performance (CSS-045-16)

Industry: Broiler chicken
Application: Product applied to broilers
Products: SCD Bio Livestock® and other commercial probiotic products

Highlights

- Improved Feed Conversion Ratio (FCR) with SCD Bio Livestock
- Reduced mortality rates compared to positive and negative control groups

Introduction

The poultry industry faces a unique set of opportunities and challenges. Feed accounts for approximately 70% of total poultry production costs, and numerous strategies are designed to reduce its associated costs. Among those, the manipulation of gut microflora with probiotics is particularly appealing. It has been suggested that probiotics in general offer a similar efficacy to antibiotics normally used for growth promotion, but without causing the public health concerns associated with antibiotics.

SCD Probiotics offers Bio Livestock, a multi-strain, liquid probiotic feed and water additive for poultry and other livestock. It is an all-natural product containing a powerful blend of microorganisms. In this study, SCD Bio Livestock's efficacy was compared with that of other commercially available probiotics and antibiotics.

Methodology

In this study, SCD Bio Livestock (coded as product A) was compared with three different commercial probiotic products (B, C, D), an antibiotic (E), and one negative control group (F) without antibiotics or probiotics.

Poultry performance indicators were recorded for six weeks. Table I provides the dosage used in the treatments, for each probiotic product used. An equal number of birds (440) were treated in each group.

Poultry performance parameters, feed conversion ratio (FCR), and mortality were measured weekly. Animals that have low FCR are considered efficient users of feed, resulting in lower feed use per mass gained.

Table I: Doses, Retail Prices and Manufacturers of the Different Probiotics Products Used in the Study.

Probiotics Products	Dosage Used	Manufacturer
A	1 L/ MT of feed	SCD Probiotics, LLC
B	1 L/ MT of feed	Undisclosed
C	50 g / MT of feed	Undisclosed
D	500 g / MT of feed	Undisclosed

Results

Results for all treatment and control groups are shown in Table II.

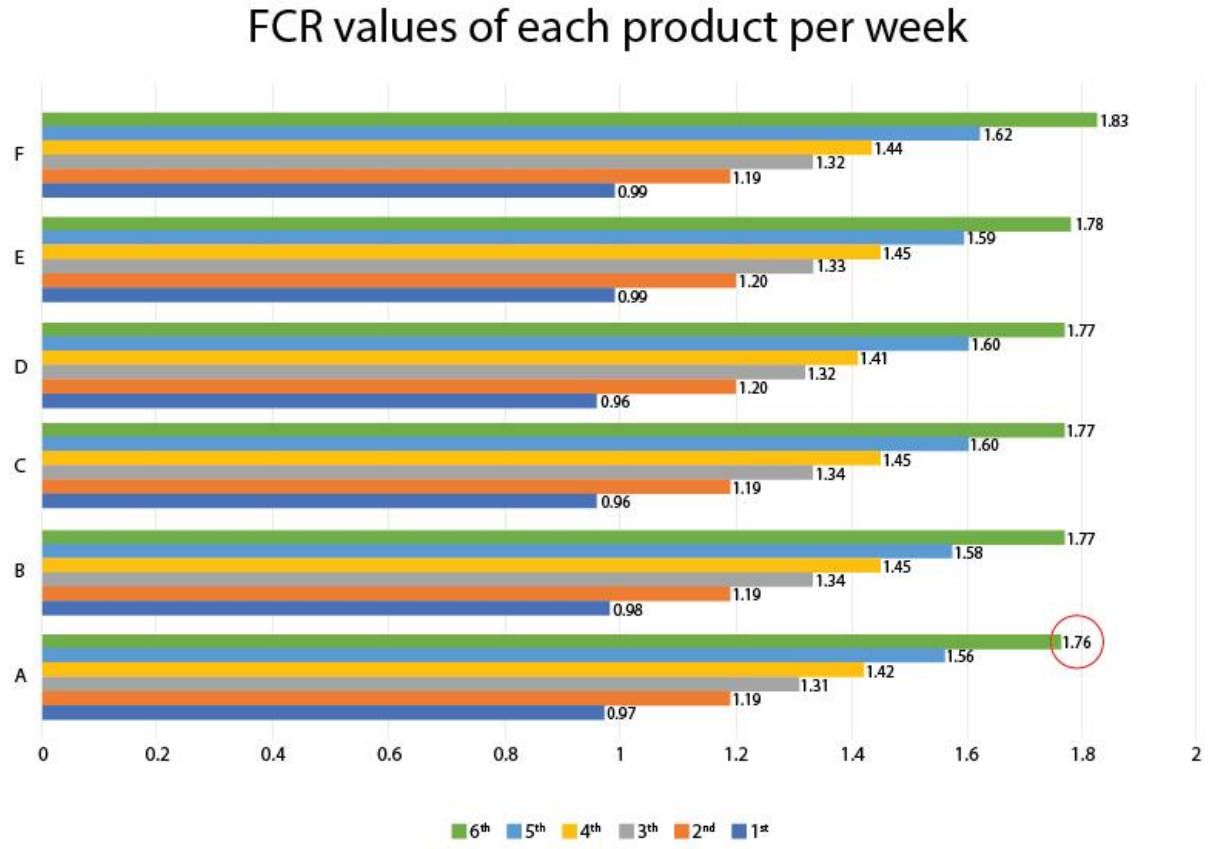
Table II: Parameter Values of Each Treatment Applied in this Trial.

Trial Group*	Dosage Used	FCR (6th week)	Mortality (%)
A	1 lit / MT	1.76	3.10
B	1 lit / MT	1.77	2.62
C	50g / MT	1.77	1.90
D	500g / MT	1.77	2.62
E	70g / MT	1.78	3.57
F	-	1.83	5.24

**Product A – SCD Bio Livestock; B, C and D – other probiotic products; E – positive control; and F – negative control*

At the end of the sixth week of trial (42nd day), SCD Bio Livestock (product A) gave the best FCR value (1.76) among all analyzed treatments (Figure 1). Although this difference was not statistically significant (P=0.137), these results implied that probiotics provide improved FCR compared to antibiotics, and that the SCD Probiotics product had the best value when compared with the other three commercial probiotic products. These results also implied that probiotic-treated groups had lower mortality rates than the positive control and negative control groups. The difference was marginally beyond statistical significance limit (P=0.0553).

Figure 1: Product A (SCD Bio Livestock) Resulted in the Best FCR Value (1.76) Among the Products Used.



Conclusions

SCD Bio Livestock provided superior FCR values in poultry than the analyzed antibiotic and can be similarly or more efficacious than the other probiotic products studied. In other words, lower FCR can be implied with the use of SCD Bio Livestock. Because lower FCR translates as reduced feed needed to drive poultry mass gain, and feed can comprise up to 70% of poultry production cost, SCD Bio Livestock can be implied to improve the overall poultry production bottom line. SCD Bio Livestock also had a lower mortality percentage when compared to the negative and positive control groups.