

GalliPro®

Dose Response Trial in Broilers Scotland - Scottish Agricultural College

Trial description

A dose response study with GalliPro in broilers was carried out at the Scottish Agricultural College. A total of 1600 Ross 308 male broiler chickens were allocated to either an untreated control group or groups supplemented with either 500 g*, 1000 g** or 4000 g**** of GalliPro per tonne final feed. No antibiotics or coccidiostats were used in this study. Eight replicates per treatment were used. Trial duration was from 0 to 35 days of age.

The composition of the diets used in this trial is given below in Table 1.

Table 1. Feed composition

	Starter 0-14 days	Finisher 15-35 days
Ingredients, (%)		
Wheat	60.1	61.6
Soybean meal	34.0	30.6
Vegetable oil	1.9	4.0
Premix	4.0	3.8
Nutrients, (%)		
ME, MJ/kg	12.2	12.8
Crude protein	22.2	20.9
Crude fat	5.5	7.2
Lysine	1.32	1.17
Methionine	0.59	0.54
Calcium	0.90	0.89
Total P	0.76	0.72

Results & discussion

Results obtained in this trial are presented in table 2. Log-transformed bodyweights were analysed as a split-plot in time design with initial bodyweight as a covariate by ANOVA and the Greehouse Geisser adjustment applied to the degrees of freedom.

* 8 x 10⁵ CFU/g feed

** 1.6 x 10⁶ CFU/g feed

*** 6.4 x 10⁶ CFU/g feed

Table 2. Results for bird performance

GalliPro, inclusion g/t	0	500 g	1000 g	4000 g
Start weight, g	42.84	42.43	42.25	42.57
End weight, g	2203 ^a	2317 ^b	2301 ^b	2313 ^b
Diff. from Control	-	5.2%	4.4%	5.0%
Total Feed intake, g	3360 ^a	3582 ^b	3586 ^b	3596 ^b
Total weight gain, g	2159	2275	2261	2272
FCR g/g	1.56 ^a	1.57 ^b	1.58 ^b	1.58 ^b
Diff. from Control	-	0.6%	1.9%	1.9%

^{ab}: Means with different superscript differ significantly (P<0.05)

Supplementation with GalliPro improved the final body weight significantly (P<0.05) by more than 5 percent.

The improvement in weight gain is even more impressive considering the final weight of 2022 g at 35 days as the standard figure provided by the breeding company.

When live weight increases the demand for energy for maintenance increases accordingly. Due to the higher live weight in the GalliPro treated birds the requirement for maintenance energy was therefore increased. It can justify the slightly higher feed conversion observed in the GalliPro treatments.

Conclusion

From this trial results it can be concluded that no additional benefit was observed in dosages higher than 500 g/tonne of feed. This fact supports the recommendation of 500 g of GalliPro per metric ton of final feed.