

Herbal mixture improves growth and performance by 6% in broilers

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A blend of carefully balanced natural extracts of aromatic herbs and spices may contribute to healthy broiler growth and profitable rearing under antibiotic free conditions.

As important as the formulation is, careful testing under controlled conditions will reveal the main effects of the blend and define its value for the producer, in terms of growth rate and feed efficiency.

Tecnaroma Herbal Mix PL from Tecnessenze SRL is a blend of natural extracts of aromatic herbs and spices that can contribute to profitable poultry production. Research under controlled conditions has shown that at 100ppm the product improves the performance of broiler chickens. This derives from an FCR which is 6% better than the control, and translates into similar percentages of body weight gain, significantly improving producer's returns.

Experimental trials

The value of Tecnaroma Herbal Mix PL for poultry production was assessed by means of a closely controlled, 42 day experiment at the Avian Science Research Centre of Scotland's Rural College. For this trial, a standard wheat and extruded soya diet was

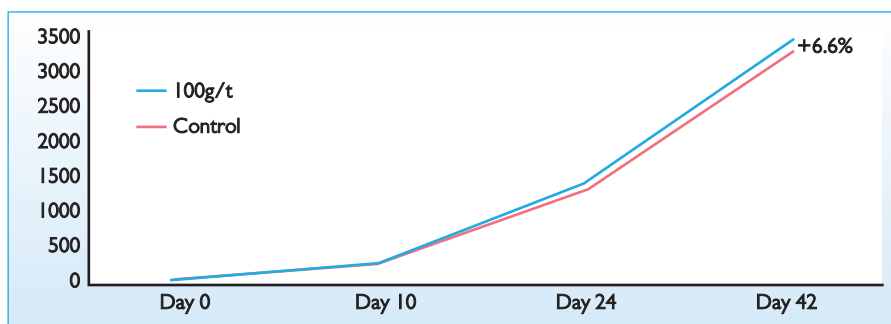


Fig. 1. Compared body weight evolution in control birds and birds fed 100ppm Tecnaroma Herbal Mix PL.

prepared as control, and the five experimental diets were formed with the addition of 100-500ppm of Tecnaroma Herbal Mix PL in 100ppm increments. Depending on the bird's age, the diets were either crumbled or pelleted. The diets were totally free of coccidiostats or antimicrobials.

Altogether, 960 one day chicks were used in the trial, allocated into six treatments with eight replicates of 20 birds per treatment.

This distribution ensures that data can be properly analysed via statistics and the results obtained can achieve significance.

Some of the production parameters recorded were: growth rate, body weight gain, feed intake, feed conversion ratio, European Production Efficiency Factor and carcass evaluation.

The recorded parameters linked to environment and management were: litter

score, foot pad score and hock score, and mortality. Blood haematology and biochemistry analysis were also performed.

This article deals with performance data.

Product efficacy

All diets containing Tecnaroma Herbal Mix PL achieved better performance than the control, while there was little difference among the Tecnaroma diets.

In Fig. 1 the growth of control chicks against the 100ppm dose is compared.

At the end, the treated birds are 6.6% heavier than the control and this difference is significant, meaning that the increased growth observed is due to the treatment and not to chance.

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Fig. 2. Body weight gain (g) per period in control birds and birds fed 100ppm Tecnaroma Herbal Mix PL.

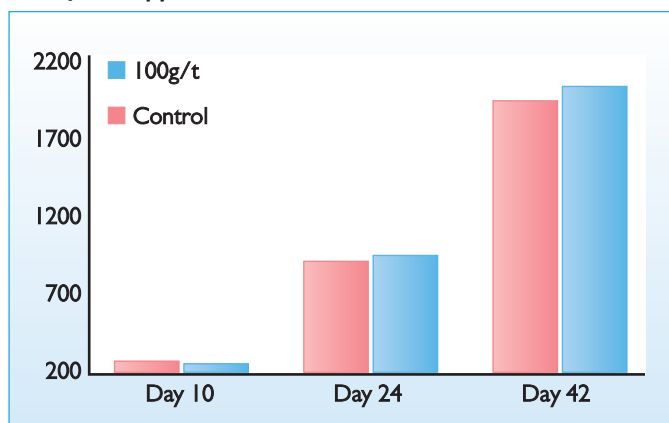
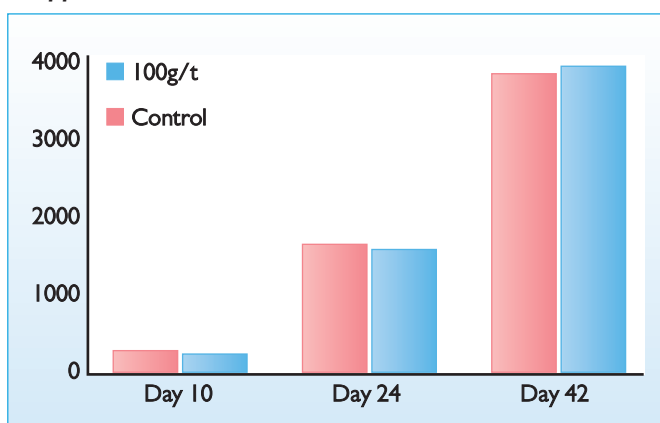


Fig. 3. Feed intake (g) per period in control birds and birds fed 100ppm Tecnaroma Herbal Mix PL.



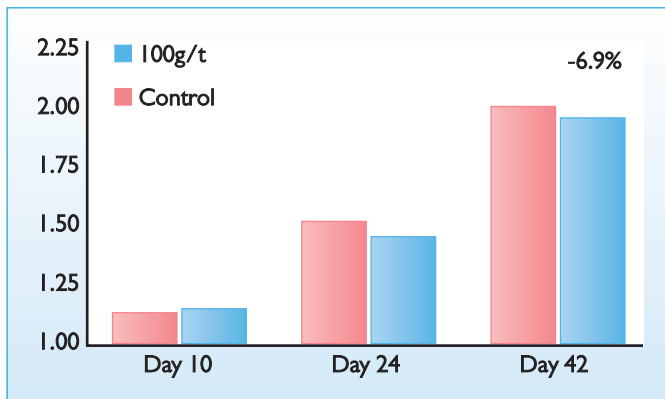


Fig. 4. Feed conversion ratio, per period, in control birds and birds fed 100ppm Tecnaroma Herbal Mix PL.

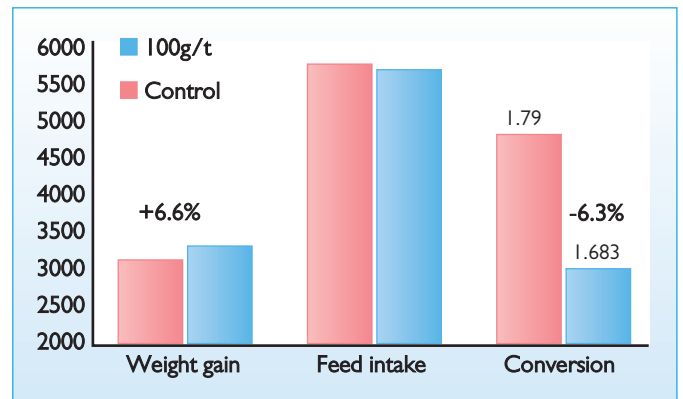


Fig. 5. Overall weight gain and feed intake (g) and FCR in control birds and birds fed 100ppm Tecnaroma Herbal Mix PL.

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With the exception of the first period of the trial, when there was no difference in growth rate among groups, all Tecnaroma fed birds grew faster than the controls.

This can be seen in Fig. 2 where there are important differences in growth rate for the last two periods between the control birds and those fed 100ppm Tecnaroma Herbal Mix PL. These differences are significant at 95% probability.

As shown in Fig. 3 feed intake was not different in the control or 100ppm Tecnaroma fed birds. In fact, no differences in feed consumption were recorded for any groups, even at the highest dose.

This is a good property, as spices or natural extracts have been shown sometimes to reduce feed intake in controlled trials or in practice.

Faster growth with similar feed intake results in improved feed efficiency. The birds receiving feed with 100ppm Tecnaroma Herbal Mix PL had their FCR reduced by 6.9% in the last period, as shown in Fig. 4.

In practical terms this means a substantial decrease in the cost of growth and a boost in the producer's profitability. What is more interesting is that the highest savings occur in the period where the animals consume more feed.

Conclusions

Tecnaroma Herbal Mix PL was tested in a 42 day trial under experimental conditions. All five doses used achieved a better performance than the controls, with the differences among doses being not significant.

As shown in Fig. 5, at a dose of 100ppm the Tecnaroma fed birds were 6.6% heavier than their control counterparts. As the feed intake for the whole experiment was very similar between groups, the FCR of Tecnaroma treated birds was 6.3% lower than the control, improving productivity.

Tecnaroma Herbal Mix added to the diet of growing broiler chickens improves growth and feed efficiency, increasing the economic return of the producer. ■