Protected combination of sodium butyrate and essential oils (NATESSE) in pullets feed

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INTRODUCTION

Essential oils have demonstrated antimicrobial activity against several pathogenic bacteria (Briozzo et al. 1989; Dorman and Deans, 2000 and Mitsch et al., 2004) and a decrease in lesion scores and mortality in the treatment of necrotic enteritis in broilers (McReynolds et al., 2009). The benefits of the use of sodium butyrate protected on broiler health (Timbermont, 2009) and on performance has also been described (Hu et al., 2007 and Mallo et al., 2010).

NATESSE comes from the combination of those the principles, sodium butyrate and essential oils protected with vegetable fat.

OBJECTIVE

The aim of the study was to evaluate the effects of NATESSE on performance and health status of pullets in a field trial.

METHODOLOGY

One thousand one-day-old chicks were distributed in two treatments:

- CON: control diet without additive
- NAT: experimental diet (basal diet plus NATESSE)

NATESSE was added on top at 1kg/t in starter feed (1-5 weeks) and at 0.5 Kg/t in grower feed (6-16 weeks).

Parameters evaluated:

- Live body weight
- Feed intake
- Flock uniformity
- Score of necrotic enteritis
- Health condition
- Mortality

RESULTS

The results regarding to performance, flock uniformity and mortality are presented in Figures 1, 2 and 3.

Regarding health condition animals in treatment CON showed signs of necrotic enteritis, emaciation and respiratory diseases but these signs were not shown in NAT group. Feathers were white in NAT group and dirty in CON group.

CONCLUSION

The use of NATESSE (sodium butyrate and essential oils in protected form) on pullet feed allows higher growth, better FCR, flock uniformity and presented better health status with less mortality.