**EFFECT OF A NSP DEGRADING ENZYME COMPLEX ON BROILER PERFORMANCE: A META-ANALSYSIS**

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Background

Hostazym® X is a NSP enzyme standardised on 1,4-β Xylanase activity, containing several other activities.

Objective

To determine, if there is a consistent improvement on bird performance when Hostazym® X is fed to broilers.

Material and methods

Efficacy trials in broilers were performed supplementing a xylanase-based enzyme (Hostazym® X) on top of various broiler diets (1500 EPU of xylanase/kg). Meta-analysis was carried out on 8 studies until 36 or 49 days of age. Supplementation trials were combined with reformulation trials on the same enzyme product and -dosage, to calculate an overall energy equivalence value (kcal AME) based on performance and dietary energy levels fed. In all trials, birds were fed maize-, wheat- or maize-wheat based diets. Body weight (BW), feed intake and feed conversion ratio (FCR) were measured.

Results

Results show that the supplementation of the xylanase enzyme yielded on average +66 grams (or 2.9%) higher final weight and -0.053 (or 3.1%) lower FCR (mortality adjusted for a 2250 g final weight), compared to a non-supplemented control group (P<0.05). Considering the energy levels fed and the zootechnical performance in all trials (on top or reformulated; n=14), the Metabolisable Energy (AME) equivalence of the multi-enzyme complex could be calculated to yield 104 kcal extra AME per kg of feed, ranging from +85 kcal/kg for maize-soya based diets to 120 kcal/kg for wheat-based diets.

Conclusion

In conclusion, standard supplementation (recommended dose) of the multi-enzyme complex (Hostazym® X) provided a consistent improvement in bird performance, independently of the cereal (NSP fibre) composition of the broiler feed.