

## Research on the action of bacterial hemicellulase on the barley-based diets used in poultry feeding

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### SUMMARY

A successful utilization of other cereals than corn in poultry feeding requires dietary inclusion of different enzymes (among which hemicellulases). This paper studies the effect of bacterial hemicellulase on the nutrient digestibility and performance of Rock cockerels (second growth period) fed on barley-based diets. It was found that the organic matter and crude fiber digestibility increased significantly when 1.00 ppm bacterial hemicellulase were added to the diet. Performance was similar and the average daily feed intake and the feed conversion ratio decreased when the enzyme was added to the diet.

Due to the physiological peculiarities of digestion in poultry, the degree of utilization of high crude fiber forages is low. Therefore, several forages (barley, triticale) are used restrictively according to age and species. Generally, growing poultry uses to a lower degree these forage resources, frequent unwanted disorders of the digestion process appearing due to the low absorption of nutrients among which cellulose.

Barley is a cereal less frequently used in the diets for poultry, due to the absence of xanthophylls pigments and to the presence of 6-glucans (soluble polysides) which make it less nutritive. In order to better use barley, several enzymes must be modified (Broz, 1994) improving the processes of digestion and implicitly the food conversion ratio.

The purpose of the present paper was to study the digestibility coefficients and productive parameters obtained after feeding on barley-based diets treated with bacterial hemicellulase produced in our country.

Keywords: poultry, diets, bacterial hemicellulase, feed conversion