

EFFECTIVENESS OF ENZYME ADDITIVES IN BROILER FEED MIXTURES WITH A HIGH BARLEY CONTENT USING SPECIFIC BARLEY VARIETIES

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Summary. The chemical composition and the metabolizable energy content (AMEN) were determined for 5 winter-type barley varieties grown in the same area. Beside this, these barley varieties were examined in three successive feeding experiments on broiler chickens. The barley varieties were used as a single cereal ingredient of the feed mixtures with or without an enzyme additive of the type Roxazyme® *Trichoderma viride*. This enzyme is a fermentation product. The following results were obtained:

1) regarding the chemical composition (crude nutrients, total ballast matter, β -glucans) there were no differences between the barley varieties tested. The β -glucan content amounted to the scope from 27 to 35 g/kg;

2) the average AMEN - content was 12,7 MJ/kg of dry matter. It varied from 12,4 to 13,2 MJ/kg;

3) different varieties had no effect on the performance parameters. Using equal amounts of barley in the mixtures containing the same ingredients, different varieties had no effect on the performance parameters. The 3 experiments showed the nearly equal performances;

4) considering the total fattening period enzyme additives had only a slight effect on the growth and feed intake. On the contrary the condition of droppings was improved remarkably. In the experiments 1 and 3 the water uptake by the chickens was considerably decreased by the enzyme additives.

Keywords: broiler chicken, winter barley varieties, chemical composition, metabolizable energy content, feed enzyme, fattening performance.