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Nutritional duel of *Gryllus assimilis* or the effect of feed on nutritional values

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The nutritional value depends on the breeding conditions, the insect stage and technological modifications. An important factor that also affects the nutritional value is the type of food. The aim of this work was to assess the effect of the addition of rapeseed cakes (70 % was added to the classic feed mixture for broilers, which has already proven itself in experiments with edible insects at the Czech University of Life Sciences) on the nutritional value of *Gryllus assimilis*. Rapeseed cakes are a by-product of hot pressing of rapeseed. It contains a high proportion of nitrogenous substances and a high proportion of fat, which ensures high nutritional quality in terms of protein and energy feed. At the same, it is a waste product which, in addition to animal feed, is used in biogas plants. In the Czech Republic, it is a relatively abundant product. The second group of crickets was fed a conventional soybean broiler feed.

Determination of basic nutritional values - fat, crude protein, chitin, dry matter, ash. attention was also focused on determining the profile of amino acids and fatty acids.

It was found that crickets were able to thrive on both types of food. The nutritional values of both groups showed very similar values. Although there was an increase in fat content at the expense of protein, the resulting fatty acid profile in crickets feed rappesed cakes showed a lower proportion of saturated fatty acids and an improvement in the ratio of omega-3 to omega-6 fatty acids. In conclusion, rapeseed cakes can be recommended as a possible alternative to soy feed for crickets.

Keywords: Gryllus assimilis, cricket, feed, rapeseed cakes, edible insects

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