

BIOCHEMICAL CHARACTERISTICS OF *HERMETIA* *ILLUCENS*: A BASE FOR PROSPECTIVE USE OF LARVAL BIOMASS IN YOUNG PIG FOOD

**R. V. Nekrasov^{1,*}, I. V. Pravdin^{2,†}, L. Z. Kravtsova², A. I. Bastrakov³,
L. A. Pashkova¹, and N. A. Ushakova^{3,‡}**

¹All-Russian Research Institute of Animal Husbandry after academy member L.K. Ernst,
Moscow region, Podolsk district, Russia

²The “NTC BIO” LLC, Russia, Belgorod region, Shebekino town,

³A.N. Severtsov Institute of Ecology and Evolution,
Russian Academy of Sciences (RAS), Russia Moscow

ABSTRACT

The prospects of use of the *Hermetia illucens* larvae for feeding young pigs have been discussed. At rearing on forage grains, the larvae contain in their body 38% of protein, 39% of fat, 5% of chitin. The *Hermetia illucens* larvae are featured with high nutritive value and comprise a rich amino acid content. Saturated acids, 49% of which is lauric acid, prevail in the composition. A physiological experiment has demonstrated the possibility of effective replacement of 5% fish meal with 7% dried *Hermetia illucens* larvae in animals' ration. That resulted in pig's average daily living weight growth of 6.7% as well as in decrease of mixed fodder consumption by 8% per 1 kg of weight gain. The possibility of use of insect micro dosage in mixed fodders for pigs, as a complex probiotic preparation component, has been also demonstrated. Adding the component in the amount of 0.5 kg/t of complex preparation enhanced the daily pigs' weight growth by 14% at lowering the fodder consumption by 12%.

Keywords: food additive, edible insects, *Hermetia illucens*, fish meal, probiotic, mixed fodder, pigs

* E-mail: nek_roman@mail.ru

† E-mail: ntcbio@mail.ru

‡ E-mail: naushakova@gmail.com