

THE APPLICATION OF EXTRUDED FULL-FAT RAPESEED IN ISA BROWN LAYING HENS' DIETS

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Abstract. The objective of this work was to analyse the effect of extruded rapeseed on the productivity parameters of laying hens and the internal and external quality of eggs. The experiment was carried out with 36 Isa Brown hens, from 27 to 34 weeks of age. The laying hens of experimental groups were fed diets (as analysed: 17.87% crude protein, 11.37 MJ/kg metabolisable energy, 0.81% lysine, 0.29% methionine, 3.44% calcium and 0.40% available phosphorus), containing 3.5% of extruded rapeseed in the ERS group and 4.5% in the HERS group. Rapeseed was extruded together with faba bean because of technical fulfilment. Due to the extrusion process, the glucosinolate content was reduced by 7.83 µmol/g of rapeseed. During the experimental period, the 4.5% extruded rapeseed had significant effects on egg performance, such as laying intensity, egg production and egg quality parameters, i.e. yolk colour intensity and egg shell thickness. The results of the trial confirmed that extruded full fat rapeseed to 4.5% is suitable to replace soya bean in the compound feed of laying hens.

Keywords: extruded full-fat rapeseed, laying hens, productivity, egg quality