

INFLUENCE OF EXTRUDED COMPOUND FEED ON LAMBS PRODUCTIVITY AND FATTY ACID CONCENTRATION IN MEAT

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Abstract. In this study, effects of using extruded compound feed on lambs productivity and fatty acid concentration. A total of 24 Lithuanian blackhead breed sheep were assigned into 2 groups (12 lambs in each group). I was control group, II experimental, where farm ratio was supplemented with extruded compound feed Lambs were weighed after being born, 21st day of age, 2 months age, 3 months age, 4 months age and 6 months age, i.e. before slaughter. Weighings were performed before morning feeding. Lambs were slaughtered at 6 months of age. The pH value was determined with pHmeter INOLAB3, meat colour measured (L*, a*, b*) with Minolta color meter firm Chroma Meter 400, drop losses – by Grau and Hamm method, meat cooking losses by method of Schilling. The fatty acid concentration were determine by chromatographic analysis, gas chromatograph Shimadzu GC -2010 Plus.

No statistically significant effect was observed on productive performance of lambs during in the experimental period. At the end of the trial, lambs weight in experimental groups increased, in II group – 3 percent ($P>0.05$). Carcass yield in experimental group increased 19 percent ($P<0.05$), compared to the control group. The data of saturated fatty acid in experimental group decreased 1.10 percent ($P<0.05$), monounsaturated fatty acid increased 1.98 percent ($P<0.05$), but polyunsaturated fatty acid decreased 0.88 percent ($P<0.05$) compared to control group. On lamb meat technological properties, statistically significant result were get in water holding capacity – it increased 3.36 percent ($P<0.05$) and pH value- it decreased 0.04 point ($P<0.05$). When analysed data of lamb meat colour, we determined that lightness (L*), in experimental group, this parameter decreased by 5 percent ($P<0.05$), redness (a*) – 10 percent ($P>0.05$), yellowness (b*) – 12 percent ($P<0.05$) compared to the control group. So, in conclusion, extruded compound feed increased productivity of lambs, carcass yield, chemical composition, water holding capacity and monounsaturated fatty acid of lamb meat.

Keywords: lamb, extruded feed, fatty acid