

THE EFFECT OF PROBIOTICS AND PHYTOBIOTICS ON MEAT PROPERTIES AND QUALITY IN PIGS

Česlovas Jukna, Vigilijus Jukna, Almantas Šimkus

Laboratory of Meat Characteristics and Quality Assessment, Lithuanian Veterinary Academy, Tilžės 18, LT-47181 Kaunas, Lithuania. E-mail: yjukna@lva.lt

Summary. The demand of safe and qualitative meat on the market has considerably increased nowadays. The producers are eager to use natural and safe non-chemical forage supplements, which positively effect animal health, increase their productivity and improve quality of the production. The experiments were performed to study the influence of probiotics YEASTURE, MICROBOND and phytobiotics YUCCA, QUILLAJA on pigs growth rate and meat quality. The experimental animals in the first group were fed with mixture of grain and bean flour supplemented with probiotics - 2 kg/t flour, and in the second group with mixture of grain and bean flour supplemented with phytobiotics – 120 g/t flour, respectively. The daily weight gain of pigs given probiotics was on 18.0-20.3 % higher compared to the control group of pigs ($P>0.05$). Probiotics increased the carcass output in the experimental group of pork on 2.0–2.1 %. These preparations improved the culinary properties of pork: cooking loss decreased on 5.4 – 6.1 %, water holding capacity increased on 1.8–3.2 % ($P>0.05$), meat hardness decreased on 6.9–47.2 % ($P>0.05$). The effect of phytobiotics on experimental pigs daily weight gain and carcass output was insignificant compared to the controls ($P<0.05$). Phytobiotics YUCCA and QUILLAJA lowered meat hardness on 35.9 % and on 46.4 % compared to the control group ($P<0.05$), respectively.

Keywords: probiotics, phytobiotics, pigs, carcass, weight gain, meat quality.