

EFFECT OF DIETARY MANNAN-OLIGOSACCHARIDES AND ESSENTIAL OILS ON GROWTH PERFORMANCE OF PIGLETS

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Summary. The aim of the study was to determine the effects of replacing feed antibiotics with the feed additive (mannan-oligosaccharides with essential oils) on rearing results in piglets. Twenty five standardized litters selected randomly were divided into five equal groups, each of 50 to 60 piglets. The piglets were weaned at 30 days of age. Two days before weaning the animals received a diet recommended for weaners, which was then fed for consecutive 39 days. Piglets of the negative control group were given a diet without antibiotics both before and after weaning. Piglets of the other groups were fed diets with the same composition as the control diet (I), but supplemented with various feed additives. Piglets of the positive control group (II) received a diet that contained the antibiotic colistin (120 mg/kg). Piglets of the experimental groups (III, IV, V) were given diets with the feed additive (mannan-oligosaccharides with essential oils), in the amount of 4, 5 and 6 kg/t (diets for suckling piglets) or 2, 3 and 4 kg/t (diets for weaned piglets). Body weights, daily gains, feed intake and feed conversion ratios were monitored over the experimental period. The observations concerned also the determination of the general health condition of piglets and mortality rates. It was found that production results deteriorated following antibiotic withdrawal from diets for suckling and rearing piglets. Replacing colistin with feed additive (mannan-oligosaccharides with essential oils) in the amount of 4 kg/t enabled to achieve comparable daily gains and feed conversion ratios as well as to reduce mortality rates, as compared with the control group (a diet without antibiotics).

Keywords: piglets, feed additives, mannanoligosaccharides, essential oils, production results.