Effect of Feeding Bt Corn on Growth Performance and Nutritive Value in Pig and Poultry

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Summary

Nutritive value of genetically modified (GM) corn and the influence of GM corn on the growth performance were examined with pig and poultry. Bt corn is the one of GM crop which containing gene from *Bacillus thuringiensis* and produce insecticidal protein. Digestible energy and TDN content in pig, and apparent metabo-lizable energy (AMEn) of Bt or control corn in poultry were determined. Feeding trials were conducted with the diet containing each corn as a main ingredient, histopathological observations of the tissues were performed in pig and poultry, respectively, and transfer of the Bt gene to blood and tissues were examined in poultry. In pig, digestible energy content of Bt and control corn was 3.25 and 3.17 Mcal/kg, respectively, and TDN content was the 75.8 and 75.5%, as fed basis respectively. There were no significant differences. The determined values for the AMEn content of both of Bt and control corn was 3.34 Mcal/kg. The results of feeding trials using pigs and poultry were not influenced by the genetic modification of corn, and there were no significant differences in histopathological observation between Bt and control groups, as well as Bt gene were not detected in blood and tissues of poultry.

The results indicate that no significant differences in nutritive value between Bt and control corn, and Bt corn does not influence growth performance and histopathological observation in pig and poultry.

Keywords: Bt corn, Nutritive value, pig, poultry