

Effect of dietary kapok oil supplementation on growth performance, carcass traits, meat quality and sensory traits of pork in finishing-pigs

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ABSTRACT

Kapok seed and oil from the tropical zone are widely used as pig feed to harden porcine fat in Japan. This study evaluated the effect of dietary kapok oil supplementation on pork quality and sensory traits. Five Duroc pigs each were assigned to an experimental group supplemented with kapok oil and a control group. Dietary kapok oil supplementation had no effect on growth performance and intramuscular fat content in the Longissimus dorsi muscle (LM). Supplemental kapok oil increased saturated fatty acid contents in subcutaneous and intramuscular fat and decreased monounsaturated fatty acid levels ($P < 0.05$). Off-flavor detection by a trained panel was higher in the experimental than the control group ($P < 0.05$), but tenderness, juiciness, texture and flavor intensity of LM chops were similar in both groups. The overall palatability of pork as judged by a consumer panel decreased with kapok oil supplementation ($P < 0.01$). These results indicate that while growth performance, intramuscular fat contents and carcass characteristics were unchanged, while dietary kapok oil supplementation makes firm fat to prevent inferior soft fat in pork, it can lower the palatability of pork due to a decrease in monounsaturated fatty acids.

Key words: *dietary kapok, fatty acids, intramuscular fat, pig, sensory traits.*