ABSTRACT


Local duck meat has been considered to have off-odor which is not preferable to be consumed by those who are not familiar with local duck meat. Previous studies showed that lipids especially unsaturated fatty acids are the main source of off-odor components liberated when the fatty acids are oxidized. A study with the aim to protect unsaturated fatty acids of local duck meat from excessive oxidation was conducted, using beluntas leaves (*Pluchea indica* L) meal (BLM) in feed as the source of flavonoid antioxidant. The effects of using BLM in the ration on feed consumption, on final body weight, and on feed conversion were studied on young male local ducks (4-10 weeks old). Three treatments applied were B₀ (feed without BLM/control), B₁ (control ration containing 1% BLM) and B₂ (control ration containing 2% BLM). The data were analyzed using Completely Randomized Design. The study showed that no significant differences among treatments in the feed consumption and in the final body weight. The feed conversion of ducks given 1% of BLM in the ration (B₁) and those given 2% of BLM in the ration (B₂) were 3.4% and 8.6% respectively higher than those given the control ration. It was concluded that ducks fed the control ration was more efficient than those fed ration containing BLM. This could be due to the antinutrient tannin found in BLM. The effectiveness of flavonoid in BLM in reducing off-odor was also studied using old female ducks (12 months old). The data were analyzed using 3 x 3 factorial design. The first factor were the treatment ration i.e: B₀, B₁ and B₂, the second factor were the duration of feeding trials i.e: 3, 5, and 7 weeks. The results showed that the meat with skin from ducks given BLM in the ration contained higher percentage of unsaturated fatty acids (C₁₈:₂; total C₁₈:₂ and C₁₈:₃) and lower in TBARS values than those given the countrol ration. These results proved that the flavonoid in BLM was able to protect the unsaturated fatty acid against lipid oxidation, therefore decreasing off-odor component liberation which was more preferable to be consumed. It was concluded that this type of ration could be applied to produce local duck meat.

Keywords: duck, off-odor, beluntas, performance, oxidation