

OR88

Carcass Yields of Broiler Chickens Fed Banana (*Musa paradisiaca*) Leaves Incubated by *Trichoderma viride* in Diets

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ABSTRACT

The effect of supplementation in increasing level of banana leaves incubated by *T. viride* in several term incubation, daily weight gain, feed efficiency and carcass yield Hubbard broiler chicks was studied. A total of 180 Hubbard broiler chicks aged 3 weeks were used for the research. The birds were randomly allocated into four treatments of long day of incubation (factor A) designated 0d, 5d, 10d, and 15d of incubation, and each group was fed on 5, 10 and 15% banana leaf meal (factor B) respectively, using completely randomized design in factorial arrangement. Each treatments was subdivided into three replicates of five chicks each, making a total of 36 replicates and 180 birds. The experiment terminated after 4 weeks at the age of 7 weeks, during which, feed intake, body weight gain, feed efficiency and carcass yield were measured. All experimental data were subjected to the analysis of variance test (ANOVA) followed by least significant difference test (LSD). Results showed that the daily feed intake was significantly ($P < 0.01$) affected by incubation and levels of banana leaves, and the values was highest on treatment level 10% incubated 10 days (A10B10 = 125.10 g/d). Also, the daily weight gain, feed efficiency and carcass yield were significantly ($P < 0.01$) affected by dietary treatments and incubation, and the values of daily weight gain, feed efficiency, and carcass yield were highest on treatment A10B10 (105.58 g/d, 0.46, 74.58, respectively). Survivability was 100% for all of the treatments. It can be concluded that banana leaves could be acceptable up to 10% levels that was incubated 10 days in broiler diet.

Keywords: Banana leaves, incubation, carcass, broiler

Functional Drink from Gac Fruit (Merr.) Juice Supplemented with Tomato (Mill.) and Pattawiya Pineapple (L. Merr.) Juice

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ABSTRACT

Gac fruit which aril and pulp part contain high bioactive compounds of antioxidants such as carotenoids, phenolics, and vitamin are classified as bioactive agents. The objectives of this research were to develop functional drink from gac fruit juice, and to analyze the physical, chemical, and sensory attributes of the product. The formula was developed by 45% mix of tomato and pineapple juice, and 55% gac fruit juice. The percent of tomato juice (TJ) and pineapple juice (PJ) were the percent of tomato juice (TJ) and pineapple juice (PJ) respectively. The polyphenol content (TPC), DPPH, FRAP, and sensory attributes of pineapple juice in functional drink was significantly affected by TJ and PJ. The formula with the highest concentration of PJ showed the highest TPC (330.23 ± 16.21 μmol AAE/100 ml), and the formula with the highest concentration of TJ gave the highest DPPH (P < 0.05). Formula optimization using D-Optimal design showed three formulas with highest desirability were F10 (33.66% PJ, 11.34% TJ), F11 (33.66% PJ, 11.34% TJ), and F12 (33.66% PJ, 11.34% TJ). In addition, sensory attributes of F10 was the most acceptable based overall liking.

Keywords: functional drink, gac, polyphenol