EFFECT OF WATER SPINACH (*IPOMOEA AQUATICA*) SUPPLEMENT LEVEL IN DIETS ON FEED INTAKES AND NUTRIENT DIGESTIBILITIES OF SAANEN FEMALE GOATS

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ABSTRACT

A study was carried out to evaluate the effects of dietary water spinach supplementation on feed intakes and nutrient digestibilities of Saanen goat. Four Sannen female goats from 8-10 months of age (24.0±0.92 kg) were used for this experiment with a Latin Square design. Four treatments were four levels of fresh water spinach supplementation in the diets at 0, 1, 1.5 and 2 kg/head/day corresponding to WS0, WS1, WS1.5 and WS2 treatments. All experimental goats were fed 1kg/head/day of soya waste and fed *ad libitum* elephant grass. The results showed that dry matter intakes ranged 443-544 g/head/day and from 263-303 g/head/day for NDF intakes. The CP intake of goat in the WS2 treatment (86.6 g/head/day) was higher significant ($P<0.05$) than that of WS1 treatment (65.0 g/head/day). There was a close linear relationship (R2 = 0.85) between DM intake and NDF intake and between DM intake and CP intake ($R^2 = 0.69$). The DM, OM, NDF digestibilities and CH4 production were not significant difference among treatments ($P<0.05$), however, CP digestibility got the highest value at the WS2 treatment and the lowest value at the WS treatment. In conclusion, fresh water spinach supplementation at 2 kg/head/day in the diet increased feed and nutrient intakes on Saanen female goats.

Keywords: *dairy goat, feed intake, digestion*