

Abstract

Researches on utilization of potential feeds and feeding of locally available resources for fattening of beef cattle and swamp buffaloes using locally resources both roughage and concentrates in terms of growth performance, feed efficiency, carcass quality and economical return. The results could be as follow:

Experiment I

Utilization of sugar cane top (SCT) as ruminant feed was studied by using nylon bag technique. It was found that DM of fresh SCT was 30.1%, crude protein, NDF and ADF contents were 5.9, 66.8 and 37.2%DM, respectively. Crude protein content of urea-treated sugar cane top (5%) (5%USCT) was increased from 5.9 to 10.9% after ensiling for 2 weeks but treating with salt did not affect on chemical composition of sugar cane top. In addition, the results from in sacco technique showed that 5% USCT had highest values of DM, OM, CP, NDF and ADF degradabilities among 2% USCT, fresh SCT, dried SCT and SCT treated with 2% salt. It indicated that treated SCT with urea 5% improved the nutritive values and ruminal degradability in the rumen of ruminants.

Experiment II

Supplementation of urea-molasses for cattle fed low quality roughage were studied and found that voluntary dry matter intake of untreated rice straw were significantly increased when supplemented with 2%U+5%M and 2%U+10%M. However, there were not significantly different in terms of intake, growth rate and feed efficiency when compared between cattle fed urea-treated rice straw ad libitum and supplemented with 5%M or 10%M.

Experiment III

A study on intact leaf protein sources such as cassava leaf (Cl), leucaena leaf (Ll), water-hyacinth leaf (Wl) and kenaf leaf (Kl) was carried out in fistulated cattle and buffaloes by using nylon bag technique. It was found that the protein degradabilities of Cl and Wl

were similar but higher than those of II. and KI. It suggested that the protein may escape rumen to lower gut for further digestion and absorption.

Experiment IV

An experiment was carried out to study on roughage and concentrate ratio in feedlot swamp buffaloes rations at 80:20, 50:50 and 20:80 in feeding trial for 9 months during which the animals were fed on rice straw (RS) and urea-treated rice straw (UTS) as roughages. It was found that ADG and economical return of animals fed UTS were higher than those of animals fed RS. The ratio of roughage and concentrate at 50:50 was optimal level for fattening of swamp buffaloes.

Experiment V

In addition, feeding regimes for fattening swamp buffaloes was studied and it was found that feeding of roughage and concentrate throughout the trial at 2% supplementation level resulted in higher gain and better feed efficiency. However, the buffaloes received only UTS for 1 month and followed by 2% BW supplementation of concentrate had similar economical return as compared with those on normal feeding which would be a trend in reducing cost of production and to increase profit for farmers.

Experiment VI

As the results of study on carcass quality at different slaughter weights indicated that dressing percentage of warm carcass, chilled carcass and loin eye area of higher slaughter weight (425 kg) were higher than those of lower slaughter weight of swamp buffalo (365 kg). The respective values were 53.8%, 52.7%, 45.7 cm² and 50.5%, 49.6%, 41.3 cm², respectively.