

COMPARATIVE GROWTH PERFORMANCE OF RABBITS MAINTAINED ON LUCERNE AND IN COMBINATION WITH CONCENTRATES

S.S. SURYAGANDH, S.D. MANDAKMALE AND D.K. KAMBLE

See end of article for authors' affiliations

Correspondence to :

D.K. KAMBLE

Department of Animal Science and Dairy Science, N.A.R.P., Shendapark, KOLHAPUR (M.S.) INDIA

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ABSTRACT

Twenty four growing rabbits of meat breeds i.e. Gray Giant, White Giant and Sovite Chinchilla weaned at 30 days of age were fed on three isoproteinous rations of 16% C.P. The three isoproteinous rations were T₀ - 90 per cent DM through concentrates and 10 per cent through Lucerne. T₁ - 85 per cent DM through concentrated and 15 per cent through Lucerne and T₂ only fresh Lucerne. A feeding trial was conducted for 56 days to assess the feed intake and its effect on growth rate of rabbits. The feed intake parameters under study were significantly (P < 0.01) affected by the various treatments. The daily feed intake recorded was highest in T₂ (261.88 g) and the lowest in T₁ (99.00 g). The similar trend was noticed in total dry matter intake (5487.64 g in T₂ and 3406.99 g in T₁) and crude protein intake (874.72 g in T₂ and 548.36 g in T₁). The final body weight and weight gain were higher in T₀ (1753 g and 1382.25 g) followed by T₁ (1723.87 g and 1344.50 g) and T₂ (1463.50 g and 1087.87 g). The average daily weight gain also varied in same trend and was 24.67, 24.00 and 19.42 g in T₀, T₁ and T₂, respectively. The feed conversion ratio was highest in T₀ (4.04) and lowest in T₂ (13.48 g). The average cost of feed per rabbit was significantly (P < 0.01) higher in T₀ (Rs.26.98) and lowest in T₂ (Rs.21.99) where as the cost per kg gain was significantly (P < 0.01) lower in T₁ (17.34) and higher in T₂ (Rs.20.23). It can be recommended from the present study that the economical and optimum growth can be achieved in rabbits by feeding them 90 per cent DM through concentrates and 10 per cent DM through green Lucerne.

Key words : Growth performance, Rabbit, Lucerne

Rabbit (*Oryctologus cuniculus*) has been kept in captivity by man for meat and skin since the Roman era, as they are highly prolific, small in size and easy to handle with many advantages. In many developed countries such as Britain, France, Spain and Italy the rabbit farming is an important enterprise leads to large scale commercial production. The energy expenditure per kilogram of gain in weight lies markedly below that of sheep and even 47 per cent below that of cattle (Parigi Bini et al., 1978). The rabbit is the highest meat producer per mother animal over all the other herbivorous animals (Gupta, 1972). The main feed source of rabbit is generally green roughages and hay under indigenous conditions but under commercial rabbit farming, the rabbits are maintained only on concentrates. The present study was undertaken with intension to find a mid way of feeding system by combination of roughages and concentrates.

MATERIALS AND METHODS

The present study was undertaken on 24 randomly selected growing rabbits of similar age groups maintained

at Rabbit Project, Department of Animal Science and Dairy Science, Mahatma Phule Krishi Vidyapeeth, Rahuri, Dist. Ahmednagar (MS). The rabbits breeds under study were Gray Giant, White Giant and Soviet Chinchilla.

The feeding trial was conducted for 56 days after weaning with pre-experimental period of 7 days. The rabbits were grouped under 3 treatments with average initial weight of 371 to 379 g. The feeding treatments were as under :

- T₀ : 90 per cent DM through concentrates and 10 per cent through green lucerne.
- T₁ : 85 per cent DM through concentrates and 15 per cent through green lucerne.
- T₂ : Ad-libitum fresh Lucerne only.

The isoproteinous feed with 16 per cent CP was prepared by using various intredients viz; Maize grains (26 per cent), Wheat bran (24 per cent), crushed Bajra grain (20 poer cent), Groundnut cake (16 per cent), Fish meal (4.48 per cent), low quality Jaggery (8.0 per cent), mineral mixture (0.02 per cent) and salt (0.5 per cent). The observations were recorded on feed intake and body weight. The Feed Conversion Ratio (FCR) was calculated as per following formula.