

**EFFECT OF DIFFERENT METHODS OF GARLIC
(*ALLIUM SATIVUM*) SUPPLEMENTATION ON THE
GROWTH PERFORMANCE OF CROSSBRED CALVES**

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CERTIFICATE

This is to certify that the thesis entitled **"EFFECT OF DIFFERENT METHODS OF GARLIC (*ALLIUM SATIVUM*) SUPPLEMENTATION ON THE GROWTH PERFORMANCE OF CROSSBRED CALVES"** submitted in partial fulfillment of the requirements for the degree of **MASTER OF VETERINARY SCIENCE in LIVESTOCK PRODUCTION AND MANAGEMENT** to the Tamil Nadu Veterinary and Animal Sciences University, Chennai - 600 051, is a record of bonafide research work carried out by **BALAMURUGAN, N** under my supervision and guidance and that no part of this thesis has been submitted for the award of any other degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journal or magazine.

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ABSTRACT

EFFECT OF DIFFERENT METHODS OF GARLIC (*ALLIUM SATIVUM*) SUPPLEMENTATION ON THE GROWTH PERFORMANCE OF CROSSBRED CALVES

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A trial was conducted to assess the effect of different methods of garlic supplementation on the performance of crossbred calves. For studying the growth performance, 18 Jersey crossbred calves of both sexes were randomly allotted into three treatment groups of 6 calves in each group. Calves in the first group (T₁) were supplemented with garlic powder at the dose rate of 250 mg/Kg BW in water whereas calves in the second group (T₂) were supplemented with 250mg/Kg BW in concentrate feed and the third group (T₃) was treated as control. The data on growth rate in terms of body weight, average daily gain, feed intake,

faecal consistency score, faecal egg count, haemogram, blood biochemical profile and disease incidence were collected and analysed as per standard procedures. It was found that the calves in T₁ and T₂ group gained significantly higher ($P<0.05$) overall body weight and average daily gain compared to calves in T₃ group. No significant difference was observed in Feed intake and feed conversion efficiency between the treatment groups. The faecal consistency score and faecal egg count remained the same in all the treatment groups. No significant difference in blood profile among the treatment groups were observed. The serum cholesterol level in all the groups increased as the age advanced. It was found that the groups T₁ and T₂ had significantly lower cholesterol ($P<0.01$) and triglycerides ($P<0.05$) than the control group (T₃)

There was no significant difference between the treatment groups in the values of haemogram and blood biochemical profile such as creatinine, BUN, glucose, SGOT, SGPT, total protein, albumin, globulin and A/G ratio. No incidence of disease was observed during experimental period.

Keywords: Jersey crossbred calves, garlic supplementation, growth parameters.