

# HORMONAL DYNAMICS AND REPRODUCTIVE EFFICIENCY IN RABBIT DOES FED CLOVE (*Syzygium aromaticum*)

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## BACKGROUND & OBJECTIVE

Phytogenic feed additives are gaining attention as sustainable alternatives to synthetic growth promoters. This study evaluated the effects of graded levels of clove (*Syzygium aromaticum*) bud powder on hormonal profile and reproductive performance of rabbit does.

## MATERIALS & METHODS

- 36 rabbit does (2–3 months; 600–650 g)
- 4 Treatments: T1 (0 g/kg), T2 (5 g/kg), T3 (7.5 g/kg), T4 (10 g/kg)
- Duration: 20 weeks (Completely Randomized Design)
- Parameters: FSH, LH, Estrogen, Progesterone, Conception rate, Litter size, Gestation length, Kit survival
- Statistical Analysis: ANOVA, Duncan's Multiple Range Test

## KEY RESULTS

Parameter	Best Treatment	Key Value
FSH	T2	20.88 mIU/mL
Progesterone	T2	1.70 ng/mL

LH	T4	15.87 mIU/mL
Litter Size	T2	4.44 kits
Pre-weaning Mortality	T2	2.22%
Kit Survival	T2	93.29%
Gestation Length	T2 & T4	~28.5 days

## INTERPRETATION

Moderate clove inclusion (5–7.5 g/kg) enhanced follicular and luteal function, improved conception outcomes, increased litter size, and reduced pre-weaning mortality. Higher inclusion (10 g/kg) elevated LH but showed signs of possible endocrine imbalance.

## CONCLUSION

Dietary supplementation with 5–7.5 g/kg clove bud powder optimizes hormonal balance and reproductive efficiency in rabbit does, supporting sustainable rabbit production systems. Excessive inclusion may disrupt endocrine regulation.