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Original Article

Study on Ecological Growth Conditions of Cattle Hyalomma Ticks in Punjab, Pakistan

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Abstract:

Background: The survey for the prevalence of different species of cattle *Hyalomma* ticks was carried out in three districts (Rawalpindi, Multan and Lahore) of Punjab province in Pakistan. The bionomical conditions suitable for *Hyalomma* were also studied in laboratory.

Methods: One hundred specimens of ticks of different genera were collected from each district. After identification, the *Hyalomma* ticks were reared in laboratory under the influence of varying temperature and humidity.

Results: The results showed highest prevalence (67%) of ticks in district Lahore. The highest prevalence (12%) of *Hyalomma* ticks and lowest prevalence (3.1%) of *Rhipicephalus* in cattle was recorded. The bionomical study showed the highest mean pre oviposition period was during spring while it was lowest in autumn .The mean oviposition period was also highest in spring . The incubation period of the ova of *Hyalomma* varied in different seasons. No oviposition was recorded at the temperature 10^0C and 85% humidity. The maximum number of eggs was laid at 34^0C and lowest egg production occurred at 15^0C. The maximum number of eggs hatched at 32^0C and 85% humidity.

Conclusion: The variation in relative humidity had no appreciable effect on rate of development of ticks while the number of eggs laid increase with rise in temperature.

Keywords:

Hyalomma ، *Preoviposition* ، *Oviposition* ، *Temperature* ، *Humidity* ، *Pakistan*

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