# STUDY ON INSECT PESTS OF COFFEE AND THEIR MANAGEMENT PRACTICES IN MADANPOKHARA VDC, PALPA, NEPAL

A Dissertation
Submitted for the Partial Fulfillment of the Requirements for
Master's Degree of Science
in
Zoology (Entomology)

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LETTER OF RECOMMENDATION

This is to recommend that Miss Kiran Maharjan has successfully completed the

dissertation work entitled "Study on Insect Pests of Coffee and Their Management

Practices in Madanpokhara VDC, Palpa" for the partial fulfillment of the Master's

Degree in Zoology with Entomology as special paper under my supervision. It is her

original work and has not been submitted for any degree earlier. So, I recommend this

dissertation for approval.

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# LETTER OF ACCEPTANCE

The dissertation work entitled "Study on Insect Pests of Coffee and Their Management Practices in Madanpokhara VDC, Palpa" submitted by Miss Kiran Maharjan has been accepted as partial fulfillment of the requirement for the Master's Degree in Zoology with Entomology as special paper.

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I Here declare that the work presented in this thesis has not been submitted elsewhere for the award of any degree. All sources of information has been specially acknowledged by reference to the authors or institutions.

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#### **ABSTRACT**

Coffee is a perennial plant grown in the highest range of soil and climatic conditions in the tropics and subtropics. Being grown in poly-culture, it provides habitat for number of insect pests in different parts and in different season with variety of damage patterns. A study was done at Madanpokhara VDC of Palpa district in the year 2006 for studying the insect pests of coffee plant and their management practices followed by the farmers. The investigation followed the Key Informant Survey and Focused Group Discussion to know over all situation of coffee. The Field Visits revealed that the white stem borer was the main threat to the coffee plant followed by various sapsuckers like brown scale, mealy bug, aphids and defoliators like Catontops sp, Calasposoma sp, Ophrida sp. The crop loss due to insect other than white stem borer is yet not estimated. For the control of pests, botanical pesticides are applied. Except Bordeaux mixture, no other chemical pesticides are used the botanical pesticides are made by farmers themselves from locally available plants having pesticides properties. The plants that were used for the preparation of pesticides consists neem (Azedirechta indica), china berry (Melia azadirach), siam weed (Eupatorium odoratum), mint (Mentha arvensis), marigold (Tagetes sp), Mug wart (Artemesia vulgaris), tobacco (Nicotiana tabacum). Regular monitoring of the borer during time of egg laying and emergence was the best prevention from the infestation of borer.

Key words: Insect pests, Coffee, Management practice, Madanpokhara, Palpa,

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#### ABBREVIATION AND ACRONYMS

CCRI Central Coffee Research Institute

CPMV Cow Pea Mosaic Virus

CTV Citrus Tristeza Virus

DCPA District Coffee Producers Association

Dept. Department

FNCCI Federation of Nepalese Chamber of Commerce and Industry

IPM Integrated Pest Management

kg kilogram

m Meter

mm Millimeter
ml Milliliter

mt Metric ton

NARC National Agricultural Research Centre

NCPA Nepal Coffee Producers Association

NRs Nepalese Rupees

NTCBD National Tea and Coffee Development Board

sq. km. Square Kilometer

VDC Village Development Committee

FGD Focused Group Discussion

KIS Key Informant Survey