

PERMANENT REFERENCE

EFFECT OF BOTANICALS ON THE FECUNDITY AND MORTALITY OF
LABORATORY-REARED COMPTON WEEVIL ADULTS

BY

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ABSTRACT

Replicated trials were carried out in the laboratory to investigate the effect of certain botanicals on the fecundity and adult mortality of the cowpea weevils. Callosobruchus maculatus (F). Also tests were carried out with the recommended insecticides. Tests were also made to check whether, any changes taking place on the seed viability as a result of the above treatments. Leaves of certain plant species such as Calotropis gigantea, Gardenia spp, Acacia caesia (L) wild, Ocimum basilicum, Eucalyptus spp, Citrus lenenun were dried and ground into powder and added in the proportion of 5%, 25%, and 50% by weight of seeds.

None of the above botanicals showed any insecticidal property at the level of 5% by weight of seeds.

All the above botanicals showed significant results in adult mortality at the level of treatment of 25% by weight of seeds. As expected, with level of 50% by weight treatment significant insecticidal effects were observed.

These botanicals did not affect viability of the seed used in the experiment but significantly lowered the fecundity of cowpea weevils. However, at 5% level, fecundity was not lowered significantly.

Two chemicals (Actellic 2% dust - 3% by weight of seed and BHC 5% dust- 1% by weight of seed) were used in separate tests and 100% adult mortality resulted within 24 hrs. and hence, oviposition prevented completely.

The chemical treatments had no effect on seed viability.

Adult mortality and lowering of fecundity by Botanicals at the level of 25% is comparable to those given by recommended insecticides.

Having made arrangements for me to carry out the studies
I am in Laboratories of the Dept. of Agronomy

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-4-

LIST OF CONTENTS

	<u>Page</u>
ABSTRACT	1 - 2
ACKNOWLEDGEMENT	3
LIST OF CONTENTS	4
LIST OF FIGURES AND TABLES	5
CHAPTER I - INTRODUCTION	6
CHAPTER II - REVIEW OF LITERATURE	7
2.1. Bruchids	7
2.2. Use of EHC and Actellic in the control of cowpea weevil in stored pulses.	8
2.3. Use of botanicals in the control of cowpea weevil in stored pulses	9
CHAPTER III - MATERIALS AND METHODS	
3.1. Green gram seeds	10
3.2. Cowpea weevil	10
3.3. Insecticides	10
3.4. Botanicals	10
3.5. Rates used in the experiments	11
3.6. Methods	11
CHAPTER IV - RESULTS AND DISCUSSION	
Results	12 - 25
Discussion	26
CHAPTER V - CONCLUSION	26
REFERENCES	27 - 30
ANNEXED	31 - 33