

CONTENTS

Page

INTRODUCTION.....	1
REVIEW OF LITERATURE.....	3
MATERIALS AND METHODS.....	34
• Isolation and identification of fungi associated with yellow corn grains.....	34
• Aflatoxin production ability of the isolated fungi.....	34
• Detection of aflatoxin production of isolated fungi.....	35
• Effect of grading, storage temperature, grain moisture content and storage period on stored yellow corn grains inoculated with <i>Aspergillus flavus</i>	36
- Grading of grains.....	36
- Preparation of fungus free grains.....	36
- Adaptation of moisture content of corn grains.....	37
- Preparation of spore suspension.....	37
- Inoculation.....	38
Percentage of grain infection.....	38
Determination of total protein.....	39
Determination of amino acid content.....	39
Determination of total carbohydrate.....	40
Hydrolysis process.....	40
Determination process.....	40
Determination of aflatoxins.....	41
Control experiments.....	41
• Histopathological and haematological examination.....	42
- Histopathological examination.....	43
- Haematological examination.....	45
Determination of blood corpuscles count (R. B. C. and W. B. C.).....	45
Determination of haemoglobin (Hb) concentration.....	45
Determination of some liver enzymes.....	46
Determination process.....	47
EXPERIMENTAL RESULTS.....	48
• Fungi associated with yellow corn grains.....	48

• Aflatoxin production ability of the isolated fungi.....	48
• Effect of infesting yellow corn grains with <i>Aspergillus flavus</i> under different grain grades, temperature, moisture content percentages and storage intervals	
• on the percentage of infection with <i>A. flavus</i>	50
• on the total protien percentage.....	56
• on amino acids content.....	61
• on total carbohydrate	67
• on production of aflatoxins.....	71
• Efficiency of fungicides and preservatives against infection of stored yellow corn grains inoculated with <i>Aspergillus flavus</i>	76
• Effect of fed on diets contaminated with aflatoxins and/or spores of <i>Aspergillus flavus</i> on weight of experimental rats.....	77
• Histopathological and haematological examination of rats fed on yellow corn grains contaminated with aflatoxins and/or spores <i>Aspergillus flavus</i>	80
- The histogramical effects.....	80
- The haematological effects.....	83
DISCUSSION	88
SUMMARY	100
REFERENCES	106
ARABIC SUMMERY.	