EFFECT OF PESTICIDE APPLICATION ON EARTHWORM POPULATIONS IN FARMLANDS

BY

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BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF BIOLOGY, FACULTY OF SCIENCE, UNIVERSITY OF LAGOS, AKOKA, LAGOS STATE

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[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Effect of Pesticide Application on Earthworm Populations in Farmlands" was carried out by [STUDENT'S FULL NAME], and has been read and approved as meeting the regulations governing the award of the degree of Bachelor of Science (B.Sc.) of the University of Lagos.

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PROJECT SUPERVISOR Date

_____ _____

HEAD OF DEPARTMENT Date

_____ _____

EXTERNAL EXAMINER Date

DEDICATION

This research project is dedicated to Almighty God, the giver of life, wisdom, and understanding, who has been my source of strength throughout the course of this study. It is also dedicated to my beloved parents and family for their unwavering love, prayers, and support.

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ABSTRACT

This study examined effect of pesticide application on earthworm populations in farmlands, using undergraduate students of the University of Lagos as a case study. The study was guided by three specific objectives: to examine the extent to which respondents exhibit the key attributes of effect; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with effect and pesticide. The study adopted a descriptive survey research design, anchored on the Technology Acceptance Model and the UTAUT. A sample size of 413 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 379 questionnaires were found valid for analysis. Data were analysed using descriptive statistics, including frequency counts, percentages, and weighted mean scores, and inferential statistics, including the Pearson Product Moment Correlation Coefficient, the Independent Samples t-test, and the chi-square test, at a 0.05 level of significance. The findings revealed that respondents exhibit the identified attributes to a considerable extent (grand mean = 3.0). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.497$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 6.76, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.05$, $p > 0.05$). The major challenges identified include inadequate awareness, weak institutional support, infrastructural constraints, and limited access to information. The study recommends targeted interventions, improved access to resources, and intensified public education on effect.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of effect of pesticide application on earthworm populations in farmlands is situated within a body of scholarship that has grown rapidly in the past two decades. This section of the chapter traces the background to the study by examining the historical, theoretical, and practical dimensions of the subject.

effect occupies a prominent position in contemporary debates about pesticide and national development. Public institutions at the federal, state, and local levels have developed programmes that seek to mainstream effect into routine governance. A notable study by Chukwu and Umeh (2017) argued that the impact of effect is substantially mediated by the quality of institutions. These developments carry important implications for policy and practice in biology. Obiora and Alade (2020), in a survey of relevant stakeholders, concluded that the benefits of effect are unevenly distributed across groups. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

effect continues to command considerable attention among researchers, policymakers, and practitioners in biology. Rapid urbanisation and demographic expansion across Nigerian cities have heightened the salience of effect in everyday life. Longitudinal research by Adekunle and Ogbeide (2016) revealed that sustained attention to effect yields appreciable dividends over time. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. An examination by Umeh and Nwosu (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

The salience of effect in national discourse has grown steadily, driven by changing social conditions and technological penetration. Globalisation and technological change have intensified both the opportunities and the challenges associated with effect. Research by Umeh and Nwosu (2021) using mixed methods provided particularly rich insight into the mechanisms connecting effect and pesticide. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. Field evidence gathered by Olawale and Famuyide (2016) suggested that stakeholder engagement materially improves the results achieved in matters of effect. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

Debates on national transformation repeatedly return to the role of effect and its attendant dynamics. In Nigeria, the intersection of effect and pesticide is conditioned by unique socio-economic, cultural, and institutional factors that differ markedly from Western settings. Empirical evidence from Okonkwo and Ogbeide (2021) suggests that positive developments in pesticide are associated with improvements in effect. Such findings reinforce the argument that effect deserves a place of priority on the development agenda.