

---

**BUSITEMA UNIVERSITY ARAPAI CAMPUS**

**FACULTY OF AGRICULTURE AND ANIMAL SCIENCES**

**DEPARTMENT OF AGRIBUSINESS AND EXTENSION**

**EFFECTS OF GROUNDNUT PRODUCTION ON THE INCOME OF SMALL HOLDER  
FARMERS IN NAMUTUMBA SUBCOUNTY NAMUTUMBA DISTRICT**

**BY**

**NAME: KISAKYE FAITH**

**COURSE CODE:3209**

**REG NO: BU UP 2021 0184**

**CONTACT: 0783065302/ 0757176701**


**EMAIL: [kisakyefaith034@gmail.com](mailto:kisakyefaith034@gmail.com)**

**SUPERVISOR:ILELU SUZAN**

**ASPECIAL PROJECT REPORT SUBMITTED TO THE DEPARTMENT OF  
AGRIBUSINESS AND EXTENSION IN PARTIAL FULLFILLMENT OF THE  
REQUIREMENT FOR THE AWARD OF THE DEGREE OF BACHELOR OF  
AGRIBUSINESS AT BUSITEMA UNIVERSITY**

## DECLARATION

This study is original and has not been published or submitted for any other degree award to any other university before

Signature.......... Date 04/11/2024.....

**KISAKYE FAITH**

## APPROVAL

This special project has been submitted to the Department of Agibusiness and Extension with approval of the university supervisor

Signature ... *Ilelu* ..... Date ... *6/11/2024* .....

**MADAM ILELU SUZAN**

## **DEDICATION**

I dedicate this work to Almighty God, my family and friends, the agricultural officer of Namutumba sub-county, and all researchers focused on groundnut production.

## **ACKNOWLEDGEMENT**

I am grateful to Almighty God for the enduring grace and mercy throughout my academic journey. I also want to thank my parents, Mr. and Mrs. Mageseso Goerge, along with my sisters, brothers, and guardians, for their support. I extend my appreciation to my supervisor, Madam Ilelu Suzan, and all the lecturers at Busitema University for their efforts in enhancing my experience on campus. May God bless you all abundantly.

## TABLE OF CONTENTS

DECLARATION .....	i
APPROVAL.....	ii
DEDICATION .....	iii
ACKNOWLEDGEMENT .....	iv
TABLE OF CONTENTS .....	v
LIST OF TABLES .....	vii
LIST OF FIGURES .....	viii
LIST OF ACRONYMS .....	ix
1.2 PROBLEM STATEMENT .....	2
1.3 OBJECTIVES.....	3
1.5 Specific objectives.....	3
1.6 Research questions .....	3
Significance of the research .....	4
1.9 SCOPE OF THE STUDY.....	5
Content scope .....	5
Geographical scope .....	5
Time scope .....	5
CONCEPTUAL FRAMEW .....	6
CHAPTER TWO .....	7
2.0 LITERATURE REVIEW .....	7
CHAPTER THREE .....	10
3.0 METHODOLOGY .....	10
3.1 Introduction.....	10
3.3 study design.....	10
3.4 Research approach. ....	10
3.5 Research population .....	10
3.6 Sample size calculation .....	11
Slovins formula.....	11

3.1.1 Data collection procedure .....	11
3.13 Ethical considerations .....	12
4.0 SOCIO-ECONOMIC STATUS OF GROUNDNUT FARMERS.....	13
4.1 GENDER.....	13
Age.....	14
Marital status .....	15
Educational level .....	15
4.2 PERCEIVED.....	17
BENEFIT DERIVED FROM GROUNDNUT PRODUCTION .....	17
INCREASED FARM SIZE.....	17
<b>Business expansion</b> .....	19
DISCUSSION OF RESULTS ON CHARACTERIZATION OF SMALL HOLDER FARMERS AND PERCIVED BENEFITS DERIVED FROM GROUNDNUT PRODUCTION .....	25
CHAPTER FIVE.....	27
5.1 CONCLUSIONS: .....	27
RECOMMENDATIONS: .....	27
APPENDIX 2: MAP THE STUDY AREA .....	36
.....	37

## **LIST OF TABLES**

Table 1 GROSS MARGINS OF GROUNDNUT PRODUCTION ON INCOME OF SMALL HOLDER FARMERS.....	24
--	----



## LIST OF FIGURES

Figure 1 SHOWS CONCEPTUAL FRAME.....	6
Figure 2 Bar graph showing male and females who participated in the research .....	13
Figure 3 bar graph showing the age of groundnut farmers who participated in the research .....	14
Figure 4 Bar graph showing the marital status of groundnut farmers who participated in the research.....	15
Figure 5 Bar graph showing the level of education of groundnut farmers.....	16
Figure 6 Bar graph showing heads of families of groundnut farmers who participated in the research.....	17
Figure 7 Pie chart showing the change in farm size of groundnut farmers .....	18
Figure 8 Pie chart showing farmers access to food.....	18
Figure 9 Pie chart showing farmers access to medical services .....	19
Figure 10 pie chart showing how income from groundnut production has influence on business expansion.....	20
Figure 11 Pie chart showing how income from groundnut production has influence on ability to build house.....	21
Figure 12 Pie chart showing how income groundnut production has influence on paying school fees by groundnut farmers .....	21
Figure 13 Pie chart showing ground nut farmers ability to purchase a vechicle.....	22
Figure 14 Pie chart showing how groundnut production has influence on change on income received by farmers.....	23
Figure 15 Pie chart showing farmers access to clothing .....	24

## LIST OF ACRONYMS

FAO	Food And Agricultural Organization
GDP	Gross Domestic Product
Ha	Hectare
(MT Ha)	Metric Ton per Hectare
HYVs	High Yielding Varieties
IPM	Integrated Pest Management
Kg	Kilogram
MAAIF	Ministry Of Agriculture Animal Industry And Fisheries
NAADS	National Animal Advisory Services
UBOS	Uganda Bureau of Statistics
UGX (Ugshs)	Uganda shillings

## ABSTRACT

In Uganda, agriculture is the backbone of the economy and the primary source of income for rural communities. The sector contributes 23% of the country's GDP, employs over 70% of the population, and supports the growing food demand. Namutumba sub-county, located in the Busoga region, relies heavily on agriculture, with farmers depending on it for their livelihoods. However, many of these farmers face poverty, food insecurity, and low status, indicating that their agricultural practices are often unprofitable. This study aimed to assess the impact of groundnut production on the income of smallholder farmers in Namutumba sub-county, as groundnuts are a commonly grown crop with a ready market and higher prices. The researcher, guided by experts, used Easterby-Smith's (2013) formula to determine a sample size of 152 participants, all of whom were groundnut farmers. Data analysis using descriptive statistics revealed that more females participate in groundnut production than males. The research into the socio-economic status and perceived benefits of groundnut farming provided valuable insights into the demographics and challenges faced by these farmers. Notably, 59.2% of groundnut producers were women, with the highest participation rates among middle-aged individuals (36-45 years) at 39.47%. This highlights the significant role of women in agriculture and underscores the need for gender-sensitive agricultural policies. Most groundnut farmers had low educational attainment, primarily holding only primary or secondary education, which likely hinders their ability to adopt advanced farming techniques and enhance productivity. Although groundnut production meets subsistence needs, it may not generate sufficient income to significantly improve living standards. To make groundnut production a profitable venture in Namutumba sub-county, supportive policies should empower female farmers. This includes providing access to credit, offering training on improved farming techniques, and ensuring effective delivery of agricultural extension services tailored for women. Additionally, training programs focusing on enhanced production methods, pest management, and post-harvest handling should be introduced to boost productivity and profitability.

## CHAPTER ONE

### 1.1 BACKGROUND

Groundnut is thought to have originated in the southern Bolivia to northern Argentina region of South America (Desmae et al., 2019). While the exact timing of its domestication is unclear, it likely first occurred in the valleys of the Paraná and Paraguay river systems in the Gran Chaco area. Today, groundnut is a significant crop for oil, food, and forage (Gottheil, 2022).

Globally, groundnut ranks as the second most important oilseed crop, primarily cultivated in semi-arid tropical regions (Gottheil, 2022). More than 100 countries grow groundnuts, with over 90% of producers located in developing nations. It is the fourth most important oilseed crop worldwide (Wizard, 2022). Groundnut (*Arachis hypogaea*), an annual legume from the Fabaceae family, has several varieties, including: Runner Varieties, Spanish Varieties, Valencia Varieties, Tennessee Red Valencia. (Raza, 2017). Groundnut seeds contain 40-50% fat, 20-50% protein, and 10-20% carbohydrates, depending on the variety (Savage, 2022). As the costs of animal protein rise, groundnuts are becoming increasingly important as a protein source. The seeds are also rich in vitamin E, niacin, calcium, phosphorus, magnesium, zinc, iron, riboflavin, thiamine, and potassium (Savage, 2022). Groundnuts can be consumed raw, roasted, or boiled, and the oil extracted from them is used in various culinary applications, including margarine, cookies, candies, and salad oils. Additionally, groundnut plants are utilized for animal feed and as industrial raw materials. They also enhance soil fertility by fixing nitrogen (Konate et al., 2020). These diverse uses make groundnut a valuable cash crop for both domestic and international markets.

Globally, groundnut is grown on approximately 25 million hectares across semi-arid tropical and subtropical regions, with major production occurring in Asia and Africa. As of 2019, it is cultivated in 108 countries on 29.6 million hectares, yielding 48.86 million tons (FAO, 2019). China is the largest producer, with 18.3 million metric tons produced in 2022/23, driven by high domestic demand. China's agriculture is characterized by smallholder farming, with an average farm size of just 0.497 hectares and a yield of about 3.8 metric tons per hectare.

## REFERENCES

- Anang, B. T. (2021). Assessing technical and scale efficiency of groundnut production in Tolon district of northern Ghana: A nonparametric approach. *Journal of Agriculture and Food Research*, 4(March), 100149. <https://doi.org/10.1016/j.jafr.2021.100149>
- Chapu, I., Okello, D. K., Okello, R. C. O., Odong, T. L., Sarkar, S., & Balota, M. (2022). Exploration of Alternative Approaches to Phenotyping of Late Leaf Spot and Groundnut Rosette Virus Disease for Groundnut Breeding. *Frontiers in Plant Science*, 13. <https://doi.org/10.3389/fpls.2022.912332>
- Desmae, H., Janila, P., Okori, P., Pandey, M. K., Motagi, B. N., Monyo, E., Mponda, O., Okello, D., Sako, D., Echeckwu, C., Oteng-Frimpong, R., Miningou, A., Ojiewo, C., & Varshney, R. K. (2019). Genetics, genomics and breeding of groundnut (*Arachis hypogaea* L.). *Plant Breeding*, 138(4), 425–444. <https://doi.org/10.1111/pbr.12645>
- Gottheil, R. J. H. (1910). The Origin and History of the Minaret. *Journal of the American Oriental*

*Society*, 30(2), 132. <https://doi.org/10.2307/3087601>

Kefa, O. H. (n.d.). *Groundnut Production Guide for Uganda : GROUNDNUT PRODUCTION GUIDE FOR UGANDA : Recommended practices for farmers.*

Konate, M., Sanou, J., Miningou, A., Okello, D. K., Desmae, H., Janila, P., & Mumm, R. H. (2020). Past, present and future perspectives on groundnut breeding in Burkina Faso. *Agronomy*, 10(5), 1–23. <https://doi.org/10.3390/agronomy10050704>

N’Gbesso, M. F. D. P., Gadji, A. A. G., Coulibaly, N. D., Kogloin, B. U., Fondio, L., Ossey, C. L., N’Gaza, A. F., Tienebo, E. O., & Abo, K. (2024). Assessment of the agronomic performance of twenty-two (22) peanut (*Arachis hypogaea* L.) accessions against late leaf spot and groundnut rosette diseases in central Côte d’Ivoire. *Cogent Food and Agriculture*, 10(1). <https://doi.org/10.1080/23311932.2023.2300187>

Okello, D. K., Biruma, M., & Deom, C. M. (2010). Overview of groundnuts research in Uganda: Past, present and future. *African Journal of Biotechnology*, 9(39), 6448–6459.

Okello, D. K., Okori, P., Puppala, N., Bravo-Ureta, B., Deom, C. M., Ininda, J., Anguria, P., Biruma, M., & Asekenye, C. (2015). Groundnut seed production manual for Uganda. In *National Agricultural Research Institute (NARO)*.

Olayide, O. E., Donkoh, S. A., Gershon, I., Ansah, K., Adzawla, W., Reilly, P. J. O., Mayes, S., Feldman, A., Halimi, R. A., Nyarko, G., Ilori, C. O., & Alabi, T. (2018). *Assessing Socioeconomic Factors Influencing Production and Commercialization of Bambara Groundnut as an Indigenous Climate Resilient Crop in Nigeria.*

Onuwa, C. G., Mailumo, S. S., & Muhammed, S. Y. (2020). PROFITABILITY ANALYSIS AND DETERMINANTS OF GROUNDNUT (*Arachis hypogea*) PRODUCTION IN DAMBATTA LOCAL GOVERNMENT AREA OF KANO STATE, NIGERIA. *Open Journal of Agricultural Science (ISSN: 2734-214X)*. <https://doi.org/10.52417/ojas.v1i1.91>

Onyuka, E. O. (2016). an Assessment of Profitability of Groundnut Production Using Gross Margin, the Case of Ndhiwa Sub County, Kenya. *International Journal of Recent Research in Social Sciences and Humanities (IJRRSSH)*, 3(3), 116–123.

- Raza, A. (2017). "Evaluation of Groundnut Varieties for the Agro- Ecological Zone of Malak and Division." *International Journal of Environmental Sciences & Natural Resources*, 5(5), 3–6. <https://doi.org/10.19080/ijesnr.2017.05.555671>
- UBOS. (2022). Annual agricultural survey. *Report*, 2, 2–5.
- Chapu, I., Okello, D. K., Okello, R. C. O., Odong, T. L., Sarkar, S., & Balota, M. (2022). Exploration of Alternative Approaches to Phenotyping of Late Leaf Spot and Groundnut Rosette Virus Disease for Groundnut Breeding. *Frontiers in Plant Science*, 13. <https://doi.org/10.3389/fpls.2022.912332>
- Desmae, H., Janila, P., Okori, P., Pandey, M. K., Motagi, B. N., Monyo, E., Mponda, O., Okello, D., Sako, D., Echeckwu, C., Oteng-Frimpong, R., Miningou, A., Ojiewo, C., & Varshney, R. K. (2019). Genetics, genomics and breeding of groundnut (*Arachis hypogaea* L.). *Plant Breeding*, 138(4), 425–444. <https://doi.org/10.1111/pbr.12645>
- Gottheil, R. J. H. (1910). The Origin and History of the Minaret. *Journal of the American Oriental Society*, 30(2), 132. <https://doi.org/10.2307/3087601>

## **APPENDICES**

### **APPENDIX 1: RESEARCH QUESTIONNAIRE**

#### **QUESTIONNAIRE TO BE USED TO COLLECT DATA FROM THE RESPONDENT FOR RESEARCH TO ASSESS THE EFFECT OF GROUNDNUT PRODUCTION ON THE INCOME OF SMALLHOLDER FARMERS IN NAMUTUMBA SUB-COUNTY, NAMUTUMBA DISTRICT**

My name is Kisakye Faith, and I am a student at Busitema University, Arapai Campus in Soroti City, pursuing a Bachelor's Degree in Agribusiness. I am conducting a study to assess the effect of groundnut production on the income of smallholder farmers in Namutumba Subcounty, Namutumba District, as part of my degree requirements.