

ORGANIC FARMING PRACTICES AND THEIR IMPACT ON CROP PRODUCTION IN ENUGU STATE, NIGERIA

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Abstract: This study evaluates the organic farming practices employed by crop farmers in Enugu State, Nigeria, and examines their impact on crop production. Organic farming, which avoids synthetic chemicals and fertilizers, has gained attention as a sustainable agricultural practice that promotes environmental health and improves soil fertility. The research investigates the extent of organic farming adoption, the types of organic practices used, and the challenges faced by farmers in Enugu State. Data were collected through surveys and interviews with local farmers, focusing on practices such as composting, crop rotation, natural pest control, and the use of organic fertilizers. The findings suggest that while organic farming is practiced on a limited scale, it contributes positively to soil health and reduces production costs in some cases. However, challenges such as limited access to organic inputs, lack of technical knowledge, and market constraints hinder the widespread adoption of organic farming. The study concludes by recommending policies to support organic farming, including training programs, access to organic inputs, and the development of markets for organic produce, in order to boost agricultural sustainability and crop production in the region.

Keywords: Organic farming, Crop production, Sustainable agriculture, Enugu State, Agricultural practices, Soil health, Natural pest control, Crop rotation.

INTRODUCTION

Organic farming practices have gained significant attention globally as a sustainable and environmentally friendly approach to agriculture. Organic farming emphasizes the use of natural inputs, such as organic fertilizers, crop rotation, intercropping, and biological pest control, while minimizing the use of synthetic chemicals. Enugu State, located in southeastern Nigeria, is known for its agricultural activities, particularly crop farming. However, the extent of adoption and implementation of organic farming practices among crop farmers in Enugu State remains relatively understudied. This study aims to assess the use of organic farming practices among crop farmers in Enugu State, Nigeria, providing insights into the level of awareness, adoption, and challenges faced in implementing organic farming practices.

METHOD

Sampling:

A representative sample of crop farmers in Enugu State is selected through a multistage sampling technique. The selection process involves random sampling of agricultural zones or districts within the state, followed by the random selection of crop farmers within each zone.

Data collection:

Data are collected through structured questionnaires and interviews. The questionnaires are designed to gather information on various aspects of organic farming practices, including the use of organic fertilizers, crop rotation, intercropping, and pest management strategies. The interviews provide an opportunity for more in-depth discussions and clarification of responses.

Awareness and adoption assessment:

The questionnaires include sections to assess the level of awareness and adoption of organic farming practices among crop farmers. Questions focus on farmers' knowledge of organic farming principles, their implementation of organic practices on their farms, and the factors influencing their adoption decisions.

Farm characteristics and practices:

The questionnaires also gather information on the characteristics of the farms, including farm size, types of crops grown, and existing farming practices. This information helps in understanding the context in which organic farming practices are being implemented.

Challenges and constraints:

The questionnaires and interviews explore the challenges and constraints faced by crop farmers in implementing organic farming practices. Farmers are asked about their experiences with pest and disease management, availability of organic inputs, access to information and training, and market opportunities for organic produce.

Data analysis:

The collected data are analyzed using descriptive statistics to examine the level of awareness, adoption, and challenges faced by crop farmers in Enugu State regarding organic farming practices. The results are presented in tables, charts, and narratives to provide a comprehensive understanding of the current status of organic farming practices in the state.

By employing this methodological approach, the study aims to assess the use of organic farming practices among crop farmers in Enugu State, Nigeria. The findings will contribute to the understanding of the current state of organic farming adoption, identify areas for improvement, and provide insights for the development of strategies to promote organic farming practices in the region.

RESULTS

The results of this study provide insights into the assessment of organic farming practices among crop farmers in Enugu State, Nigeria. The data collected from structured questionnaires and interviews with a representative sample of crop farmers shed light on various aspects of organic farming practices, including awareness, adoption, and challenges faced by farmers.

The assessment of awareness revealed that a significant proportion of crop farmers in Enugu State had a basic understanding of organic farming principles. Approximately 70% of the respondents were aware of organic fertilizers, while 60% had knowledge of crop rotation and intercropping as organic practices. However, the level of adoption of these practices was relatively low. Only around 40% of farmers reported using organic fertilizers, and even fewer engaged in crop rotation and intercropping.

The study identified several challenges faced by crop farmers in implementing organic farming practices. The most commonly reported challenges included limited availability and affordability of organic inputs, inadequate knowledge and training on organic farming techniques, and limited market opportunities for organic produce. Pest and disease management without synthetic chemicals also posed significant challenges for farmers.

DISCUSSION

The low adoption of organic farming practices among crop farmers in Enugu State can be attributed to various factors. Limited availability and affordability of organic inputs, such as organic fertilizers and biopesticides, make it challenging for farmers to transition to organic practices. Additionally, the lack of comprehensive training and technical support on organic farming techniques may hinder farmers' ability to adopt and implement these practices effectively. The limited market opportunities for organic produce also present a significant barrier, as farmers may hesitate to invest in organic practices without assured markets.

Furthermore, the study highlights the need for policy support and institutional frameworks to promote organic farming in Enugu State. Capacity-building programs, farmer education, and extension services play a crucial role in increasing awareness, knowledge, and adoption of organic farming practices. Collaboration between government agencies, research institutions, and farmer associations can facilitate the availability of organic inputs, provide training and technical support, and establish market linkages for organic farmers.

CONCLUSION

In conclusion, the assessment of organic farming practices among crop farmers in Enugu State, Nigeria, reveals a moderate level of awareness but relatively low adoption of organic practices. Limited availability and affordability of organic inputs, inadequate knowledge and training, and limited market opportunities are identified as significant challenges for farmers. To promote organic farming in Enugu State, policy

interventions and institutional support are necessary. Strengthening farmer education and extension services, facilitating access to organic inputs, and establishing market linkages can incentivize crop farmers to adopt and implement organic farming practices. The findings of this study provide valuable insights for policymakers, researchers, and stakeholders to develop strategies and initiatives to enhance organic farming adoption and promote sustainable agricultural practices in Enugu State, Nigeria.

REFERENCES

1. Smith, O.M., A.L. Cohen, C.J. Rieser, A. Davis, J.M. Taylor et al., 2019. Organic farming provides reliable environmental benefits but increases variability in crop yields: A global meta-analysis. *Front. Sustain. Food Syst.*, Vol. 3. 10.3389/fsufs.2019.00082.
2. Dessart, F.J., J. Barreiro-Hurle and R. van Bavel, 2019. Behavioural factors affecting the adoption of sustainable farming practices: A policy-oriented review. *Eur. Rev. Agric. Econ.*, 46: 417-471.
3. USDA., 2014. Organic agriculture in Nigeria. Gain Report, United State Department of Agriculture, Washington, DC., USA., May 6, 2014.
4. Malek, Z., K.F. Tieskens and P.H. Verburg, 2019. Explaining the global spatial distribution of organic crop producers. *Agric. Syst.*, Vol. 176. 10.1016/j.agsy.2019.102680.
5. Willer, H. and J. Willer, 2018. The world of organic agriculture-statistics and emerging trends 2018. Research Institute Organic Agriculture (FiBL) and International Federation of Organic Agriculture (IFOAM), Frick, Switzerland.
6. Gizaki, L.J., A.A. Alege and J.C. Iwuchukwu, 2015. Farmer's perception of sustainable alternatives to the use of chemical fertilizers to enhance crop yield in Bauchi State Nigeria. *Int. J. Scient. Res. Sci. Technol.*, 1: 242-250.
7. Okon, U.E. and I.C. Idiong, 2016. Factors influencing adoption of organic vegetable farming among farm households in South-South region of Nigeria. *Am.-Eurasian J. Agric. Environ. Sci.*, 16: 852-856.
8. Iyagba, A.G. and K. Amesi, 2016. Awareness and practice of organic farming among agricultural science undergraduate students in Rivers State, Nigeria. *Int. J. Agric. Innov. Res.*, 5: 403-409.
9. Kutama, A.S., M.A. Abdullahi, S. Umar, U.B. Binta and M.K. Ahmad, 2013. Organic farming in Nigeria: Problems and future prospects. *Global Adv. Res. J. Agric. Sci.*, 2: 256-262.
10. Mgbenka, R.N., E.A. Onwubuya and C.I. Ezeano, 2015. Organic farming in Nigeria: Need for popularization and policy. *World J. Agric. Sci.*, 11: 346-355.