

**UNIVERSITY OF NIGERIA
FACULTY OF AGRICULTURE
DEPARTMENT OF CROP SCIENCE**



**ORGANIC FARMING AS A SAFE ALTERNATIVE TO
TOXIC SYNTHETIC CHEMICALS USAGE IN TROPICAL
CROP PRODUCTION**

BY

Dr. C. F. AMUJI

INTRODUCTION

- ❖ Our environment is no longer natural it has been altered by human activities
- ❖ To preserve the earth for future use we have to we educate ourselves and take interest in what is happening around us
- ❖ Organic farming supports and improves biodiversity

OVERARCHING GOAL OF THE WORK

- ❖ Highlight the major perceived benefits of organic farming on food productivity especially in the tropical region of the world

MODERN, INTENSIVE CROP PRODUCTION CAUSES MANY PROBLEMS

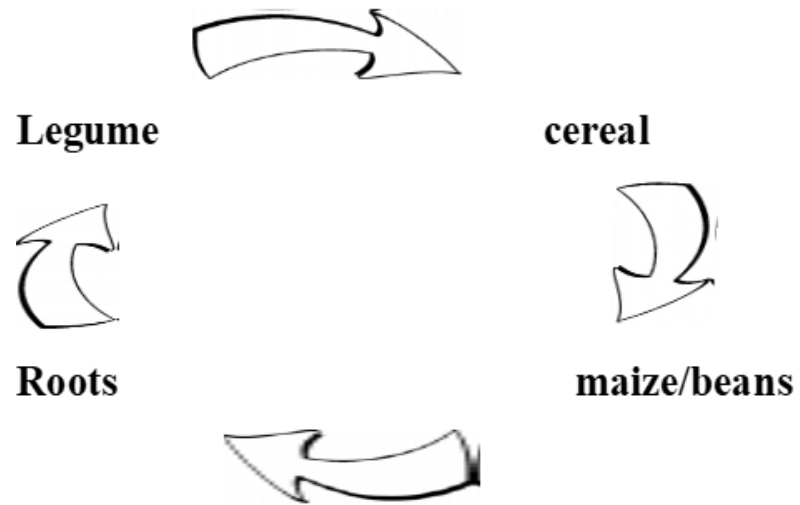
- ❖ Nitrate Pollution
- ❖ Accumulation of Heavy Metals
- ❖ Pesticide Pollution

WAYS OF ENSURING LESS USE OF TOXIC CHEMICALS IN CROP PRODUCTION THROUGH ORGANIC FARMING

❖ Choice of Crops

❖ Crop rotation

A typical 4-year rotation would include a cycle with maize/beans, a root crop and cereals with either of the following;



A simple rotation that includes a legume (HDRA, 1998)

❖ Composting



Picture source: <https://www.nrdc.org/stories/composting-101>

MULCHING

In the present situation of globalization and health awareness demand of the virtuous horticultural crops has increased worldwide. The increasing demand for the fruits and vegetables and market competition has forced the farmers to produce more and high-quality fruits and vegetables for sustaining in the international market. Use of organic mulching is one of the suitable methods which could help the horticultural growers to increase the production with good quality of produce. Looking to the water scarcity and the challenges that arise due to climate change, adoption of organic mulching at large scale by the Indian farmers would help the farmers to overcome several problems considering the advantages of organic mulching.

WHY MULCH???



It helps to control soil temperature fluctuations, reducing the stress on trees. Protect trees roots from extreme heat and cold.



It maintains the good level of moisture in the soil, where it can be absorbed by roots. This is especially beneficial during periods of drought.



Hinders weed growth and seed germination of undesired plants.



Blocks weed whacker and lawnmower damage.

❖ Natural Pest and Disease Control

- Organic farming avoids the use of synthetic chemicals.
- Pests and diseases are part of nature.
- Organic farming aim is not to eradicate them altogether but to maintain an acceptable level.

MAJOR BENEFITS OF ORGANIC FARMING IN CROP PRODUCTION

❖ Safety for People

❖ Cost

❖ Safety for The Environment

CONCLUSION

- ❖ A sure way to ensure safer environment is through organic farming.
- ❖ Organic farming encourages healthy populations of beneficial insects that keep destructive insects under control.
- ❖ The environmental benefits of organic farming represent long-term savings, not just for the organic farmer, but also for future generations.

THANK YOU FOR YOUR
ATTENTION