

# Role of laboratory testing on food safety

Rose Nyakundi - CROPNUTS



# Who is **Cropnuts**?



- 1 **Cropnuts** is an independent agricultural testing and agronomic advisory business operating across Africa for past 22 years.
- 2 Cropnuts has local presence in Kenya, Tanzania, Zambia and Nigeria.
- Offers a wide range of ISO 17025 accredited laboratory testing services, including soil, water, plant, fertilizer, animal feed & food analysis.
- 4 Also offers agronomy advisory services such as precision farming, soil survey mapping, and agronomic field support services.
- **Cropnuts**' services are targeted towards commercial growers, agribusinesses as well as small-scale farmers.

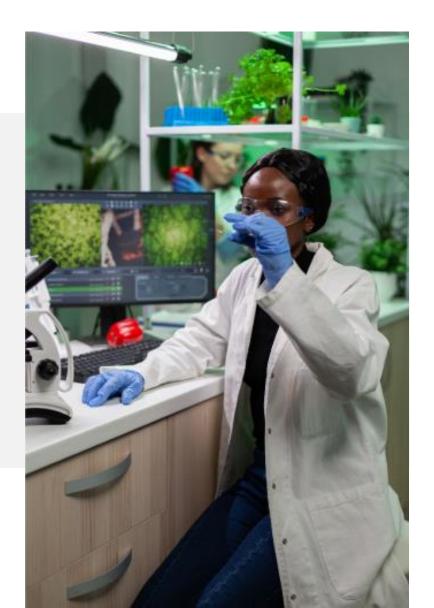




#### Introduction

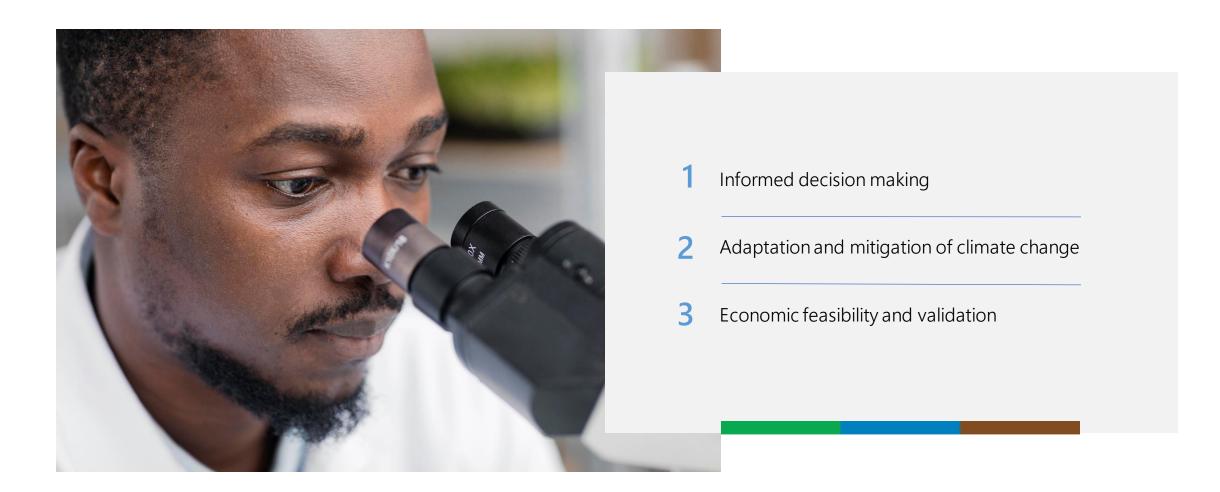
#### Objectives of the lab

- 1 Avoid guess work in fertilization, pesticide application
- 2 To satisfy compliance standards
- 3 Monitoring food systems and safety





# Implications of laboratory testing

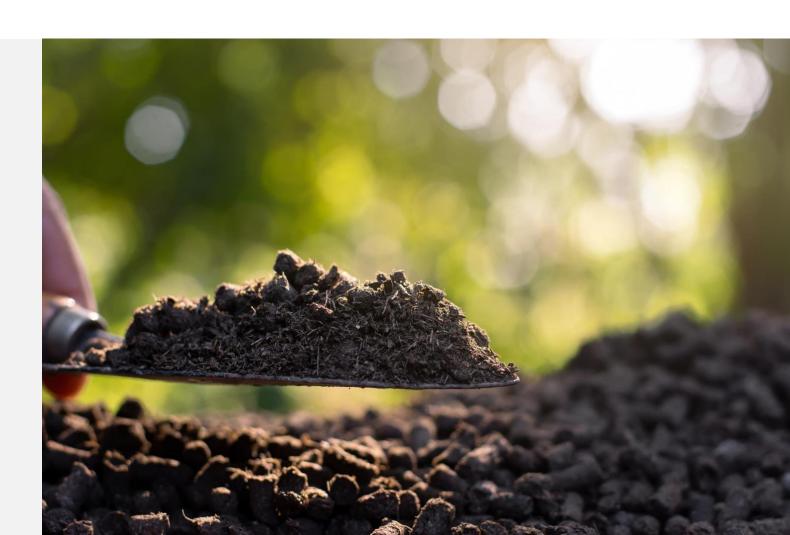




# Our core services for vs food safety

#### **Soil Nutrition Analysis**

- 1 Checking for Macro and Micro elements
- pH and EC, C.E.C, Total nitrogen, C/N ratio and organic matter.
- 3 Presence of heavy metals





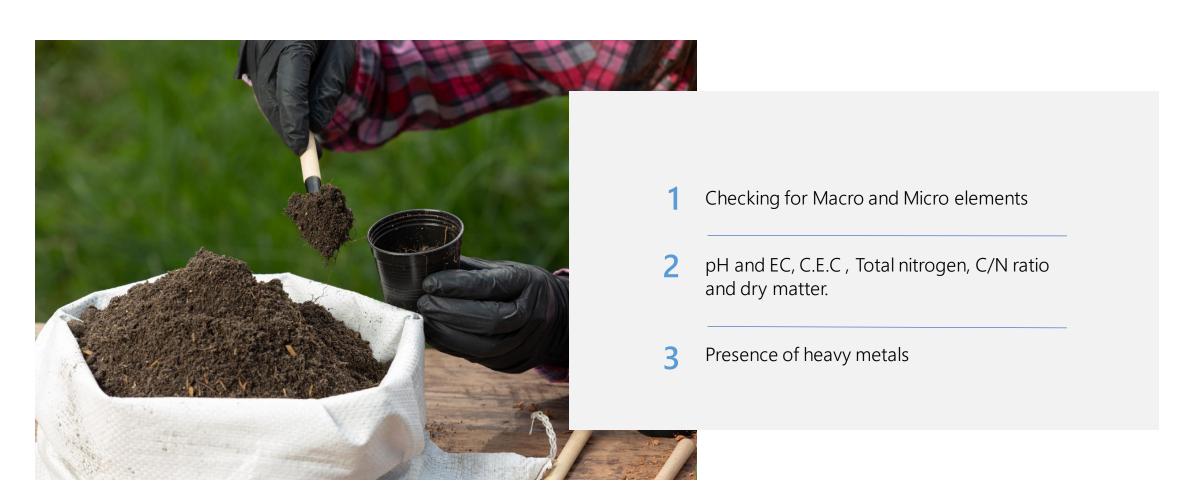
### Fertilizers

- 1 Confirm the composition as specified by the manufacture
- 2 Check for heavy metals





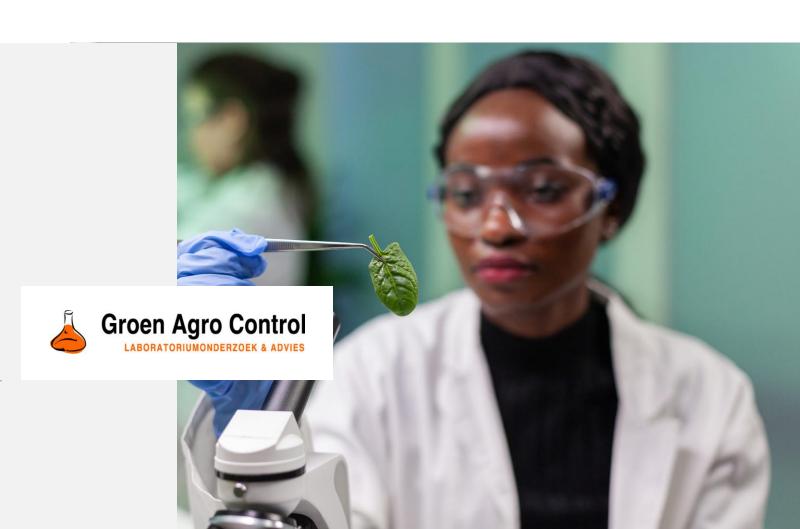
# Manure compost





#### Pesticide residue levels

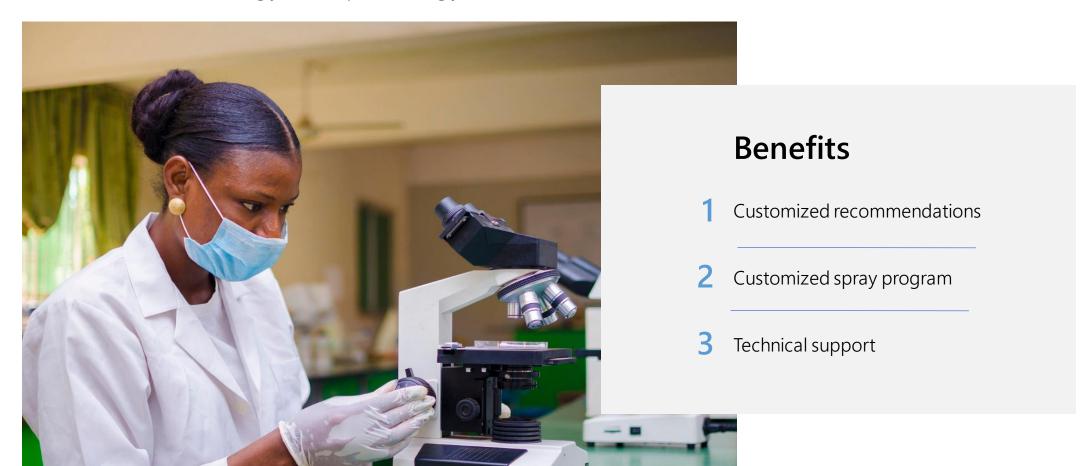
- 1 Crop injury caused by > 50,000 pathogens, 900 insect and mite pests and 800 weeds
- Pesticides indispensable but if not used responsibly detrimental
- 3 Done in partnership with Groen Agro control Lab
- 4 Check both the pesticide active ingredients and their metabolites





#### MRL Menace?

Entomology and pathology services are offered at **CROPNUTS** 





#### NEMA

This is done for compliance to the NEMA regulations on effluent water management.

Heavy metal analysis done among other parameters.

Microbial analysis done

Important that water released to the environment is safe.





# Food safety



- 1 Aflatoxin testing in feed/ food- Total and AFB1
- 2 Microbial analysis
- 3 Heavy metals in food



# Opportunity



Have a policy frame work for MRL testing for both export and local market





#### Remember



# Laboratory analysis is crucial in food safety management





# Acknowledgement



Jeremy Cordingley
The Managing Director Cropnuts



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Technical Sales (Agronomy) Cropnuts



Oscar Adika
The Digital Marketing Manager Cropnuts









#### Thank you for your attention





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