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Abstract

Scaling up climate smart agriculture using rabbit urine as an organic fertilizer and pesticide.

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Abstract:

Uganda is one of the countries hard hit by the effects of climate change such as prolonged droughts resulting into multiple vulnerabilities. The agriculture sector employing about 70% of Ugandans is one of the most affected by the impacts of climate change as most smallholder farmers cannot afford to practice climate-resilient agronomic practices hence affecting their productivity. As a result, there is increasing application action of inorganic fertilizers as a quick fix to increasing farm yields when nutrient deficient soils become unproductive amidst a changing climate. Pests and diseases have also increased with the changing weather patterns equally affecting yields.

However, there is growing demand for food security not only in Uganda but also in the region and world at large amidst a growing population and effects of climate change. The application of inorganic fertilizers does not present a sustainable safe solution for the future considering the potential human health risks posed by these fertilizers. There's need to develop local sustainable solutions that are ecologically suitable to not only increase agricultural production but also ensure long term sustainability and food security in Uganda.

Having used Rabbit urine at our WAGE Farm with good early signs of improving soil fertility and killing aphids & repeling a wide range of other pests , we are now interested in pursuing a more scientific and tested approach to its application as a sustainable solution to agricultural production. We want to test and scale up the use of organic fertilizers and pesticides using rabbit urine on a commercial scale. We believe this will not only protect our ecosystem but also save the lives of millions of Ugandans. We have contacted over 20 farmers that are willing to supply us with the urine with a capacity of over 500 liters a day and can attest to its effectiveness.

Why Rabbit urine?

In organic crop production, fertilizers and pesticides are

the most limiting resources during the production process. However, rabbit urine can be a very cheap solution to this production problem as it can be used as fertilizer and pesticide. It would not only help to reduce the high cost of organic farming but also increases the quantity and quality of the crop produced.

Biography:

Isaac has a Bachelor's of Conservation Forestry and Products Technology from Makerere University and several certificates in youth empowerment, micro and small-scale business development. His journey began in 2014 as the Operations officer for YESE LTD- Youth environmental and social enterprises. He later in 2015 began his own initiative with a label –KAGIS (Keep a girl child in school project). This has continued to reach out to support girls to stay in school in rural Uganda- Africa. Their model is to offer sanitary pads such that girls don't have to miss school during their periods. He visited Oxford University and participated in the Oxford forum for international development to raise awareness about this initiative.

Publication of speakers:

1. Shinyekwa, Isaac & Kiwala, Yusuf. (2020). Constraints and Opportunities for Innovation in Green Enterprises: Implications for Land and Water Management in Rural Uganda. 10.1007/978-3-030-44180-7_2.
2. Shinyekwa, Isaac & Lakuma, Corti & Munu, Martin. (2019). The Effects of Regional Economic Communities on Industrialization: The Case of COMESA. African Development Review. 31. 506-516. 10.1111/1467-8268.12407.

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