



CLIMATE CHANGE ADAPTATION IN BUTTERNUT PRODUCTION & INNOVATIVE PROCESSING



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CONFERENCE ON CLIMATE
ADAPTATION FOR SOUTH AFRICAN
INDUSTRIES

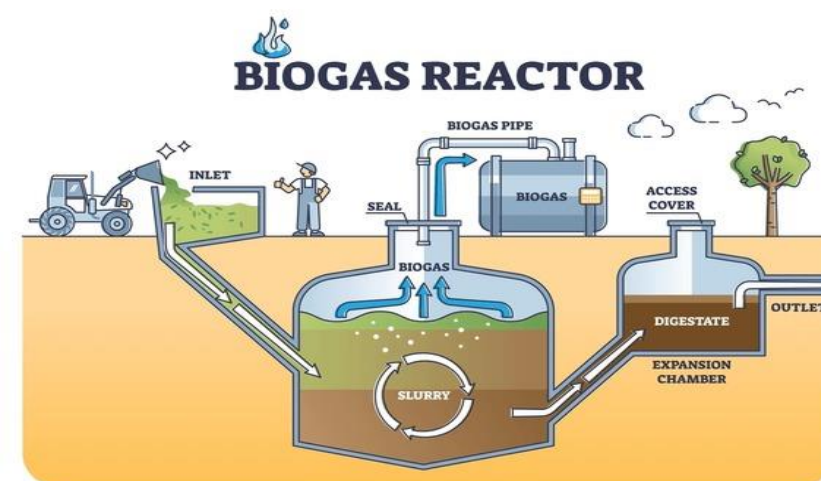
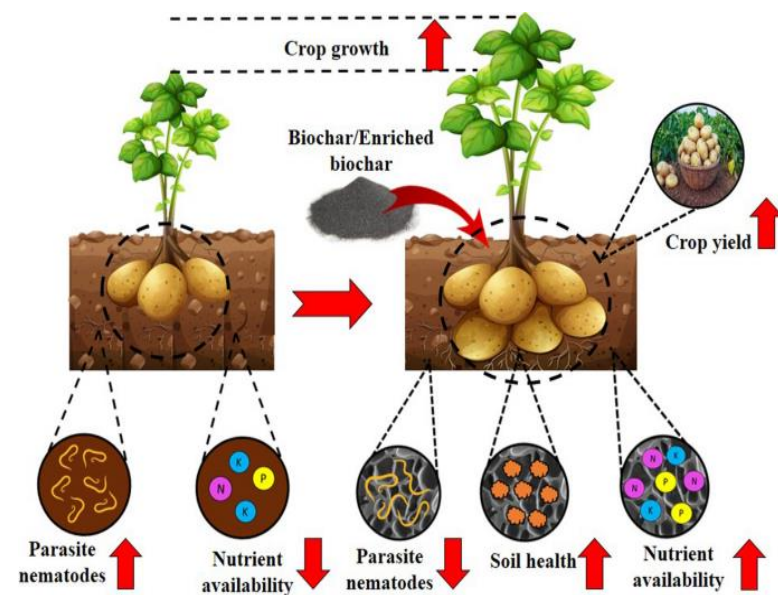


INTRODUCTION

I will be discussing the critical issue of climate change adaptation in agriculture, specifically focusing on how it affects butternut production and innovative processing.

As climate patterns shift, our ability to sustainably produce crops like butternut is increasing and challenging. I'll be sharing strategies that not only help mitigate these impacts but also ensures continued productivity and innovation in our processing methods. By adapting now, we can secure a more resilient future for our operations and the broader agricultural community.

- ❁ **High Carbon Footprint of Fresh Produce:** during transportation, storage and processing of fresh pumpkins can have a significant carbon footprint due to the need for refrigeration which consumes a lot of energy.
- ❁ **Environmental Humiliation:** Traditional farming and processing methods often contribute to soil exhaustion, excessive water usage, and high carbon emissions.
- ❁ **Resource Dependency:** Many food processing facilities are heavily dependent on fossil fuels and inefficient water usage, leading to high operational costs and environmental harm.



KEY PRACTICES

Our commitment to environmental stewardship begins at the foundation: focusing on adaptation, waste reduction, carbon sequestration, emissions reduction, and the use of green energy.

- Biochar Fertilizer:** We utilize biochar which ensures effective irrigation as it improves water retention which improves soil health and sequesters carbon, contributing to long-term agricultural sustainability.
- Drip Irrigation:** Our implementation of drip irrigation optimizes water use, ensuring that our pumpkins receive the necessary hydration while minimizing waste.
- Biogas and Solar Energy:** We harness biogas and solar energy to power our irrigation and processing facilities. This renewable energy source reduces our carbon footprint and promotes energy efficiency.
- Water-Saving Solutions:** In our processing facility, we have integrated various water-saving technologies to reduce consumption and enhance overall efficiency.

AGRIVOLTAICS: We plan to slowly introduce agrivoltaics as another innovative approach that combines agriculture and solar energy production on the same land, generating renewable energy and protecting plants from extreme weather conditions, such as excessive sunlight or heat.



BUTTERNUT PRODUCTS OVERVIEW



- ▶ Today, I'm excited to introduce our first four innovative butternut products
 1. **Canned Butternut Puree**—perfect for baking and cooking.
 2. **Butternut Powder**—a versatile ingredient for smoothies and a flavour enhancer in cereals, health bars, and ice creams.
 3. **Butternut Pasta**—a nutritious alternative for pasta lovers.
 4. **Butternut Syrup**—ideal for pancakes and desserts.
- ▶ Many of you may already be familiar with the delicious pumpkin spice latte from Starbucks; our products can offer similar flavour profiles and versatility."

Zero Waste Commitment

- ▶ We are committed to zero waste in our butternut production and processing by utilizing every part of the plant from skin, flesh, seeds and leaves ensuring that nothing goes to waste.
- ▶ We plan to expand with even more innovative products in the near future.

PRODUCTS USING PROCESSED PUMPKINS



CONCLUSION

These initiatives not only support our butternut production and processing, as we are not just adapting to climate change but actively contributing to a sustainable future for agriculture.

Thank you for your attention, and I look forward to discussing how we can collaborate for a greener tomorrow.

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QUESTIONS ??