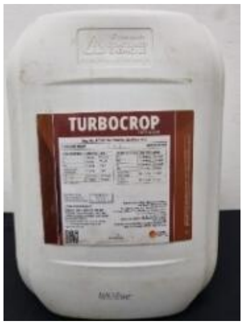
Turbocrop: Field crop plant establishment biostimulant

Specialized biostimulant for root development and vegetative growth on field crops

Turbocrop is a specialized biostimulant product designed to enhance the development of roots and promote vegetative growth in crops. It is specifically formulated to improve plants' ability to withstand and cope with abiotic stress factors, such as extreme temperatures, drought, or nutrient deficiencies.



✓ This technology is validated.

9·9 Scaling readiness: idea maturity 9/9; level of use 9/9

Gender assessment 👍 4

Climate impact 👍 6 👎 1

Problem

- Imbalances in soil nutrients hinder optimal plant growth and productivity.
- Factors constrain the potential size and structure of plants, impacting overall yield.
- Restrictions in root development impede nutrient uptake, affecting plant health and productivity.
- Inefficiencies in nutrient absorption and utilization by plants result in suboptimal growth.
- Various factors contribute to limitations in crop yields, affecting agricultural productivity and food security.

Solution

- Stimulates root hair formation for enhanced nutrient absorption.
- Promotes stem elongation and leaf growth, particularly during tillering.
- Provides a balanced blend of essential nutrients for optimal crop growth.
- Improves nutrient utilization efficiency for better plant performance.
- Offers a holistic approach to plant growth, addressing root development, stem elongation, leaf formation, and nutrient optimization.

Key points to design your project

- Turbocrop technology enhances food security and nutrition by boosting crop yields and nutrient absorption.
- It promotes sustainable agriculture by improving nutrient utilization efficiency and supporting climate resilience.
- Additionally, it fosters healthier soil and plant ecosystems, contributing to biodiversity.
- Steps to integrate the technology:
  - Assess project requirements and identify how the technology can address them.
  - Determine quantity needed based on project size and scope.
  - Research and select reputable suppliers or providers.
  - Estimate costs, including training and support services.
  - Develop a plan for integration into project timeline and budget.
  - Ensure adequate training and support for project staff.
  - Monitor and evaluate technology performance, making necessary adjustments.
  - Create communication materials to promote the technology.
- Collaboration with agricultural development institutes, fertilizer suppliers, and service companies is recommended for effective implementation.

Cost: $$$ **10 - 20 USD**

Fertilizer cost

460 Kg/ha
Yield increase

170 USD/ha
Benefit on maize in South Africa

IP
Patent granted

UPL Ltd.
Florent Clair

Commodities

Wheat, Maize, Groundnut, Common bean, Other commodity

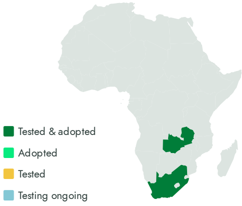
Sustainable Development Goals

- 2 ZERO HUNGER
- 3 GOOD HEALTH AND WELL-BEING
- 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
- 13 CLIMATE ACTION
- 15 LIFE ON LAND

Categories

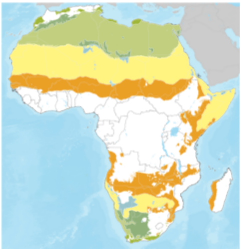
Production, Inputs, Fertilizer

Tested/adopted in



Where it can be used

This technology can be used in the colored agro-ecological zones.



Target groups

Farmers