

# 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.



**UPL**  
Florent Clair

Commodities

Wheat, Maize, Groundnut, Common bean

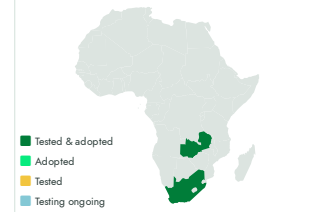
Sustainable Development Goals



Categories

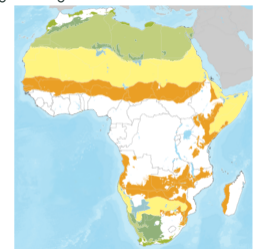
Production, Inputs, Fertilizer

Tested/adopted in



Where it can be used

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



Target groups

Farmers

This technology is **validated**.
 
 Scaling readiness: idea maturity 9/9; level of use 9/9

Inclusion 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 program

TurboCrop can be integrated into sustainable crop production, climate-smart agriculture, soil fertility management, and food security programs to improve crop establishment, productivity, and resilience while optimizing nutrient use. Its adoption contributes to **SDGs 2, 3, 12, 13, and 15**.

To integrate this technology into your project, plan and budget for the following activities and prerequisites:

- Facilitate access to TurboCrop through sustainable input supply and distribution systems.
- Build partnerships with UPL, extension services, input suppliers, and private sector partners to support scaling.
- Train farmers and extension agents on biostimulant application and integrated nutrient management practices.
- Monitor crop establishment, nutrient use efficiency, yield improvement, farmer adoption, and resilience to abiotic stress.

**460 Kg/ha**  
Yield increase
**170 USD/ha**  
Benefit on maize in South Africa
 **IP**  
Patent granted



Turbocrop

<https://taat.africa/cjy>

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