

BTNG ORGANIC INSECTICIDE

GERANIOL 20% SC · EAA-REGISTERED

A biodegradable, non-toxic bio-insecticide for climate-smart crop protection in Ethiopia.



20%

GERANIOL SC

8–9 DAYS

FULL BIODEGRADATION

99.9%

BREAKDOWN, NO
RESIDUE

2030

EAA REGISTRATION VALID TO

ABOUT SOIL & MORE ETHIOPIA

Soil and More Ethiopia (S&M) is a for-profit social enterprise working across sustainable livelihoods, climate resilience and inclusive green growth. BTNG Organic Insecticide is executed as a core pillar of S&M's broader Regenerative Agriculture and Climate Action Programme, bridging targeted pest management with soil health, biodiversity restoration, and climate mitigation.

ABOUT BTNG

What it is: a plant-derived bio-insecticide built on Geraniol 20% SC (a natural monoterpene alcohol), with 80% renewable, food-grade inert co-formulants — registered by the Ethiopian Agricultural Authority under Reg. No. ET/EAA/IN/MB/R432/2025.

How it works: rapid physical contact action — micelle formation mechanically dissolves cuticular lipids and disrupts outer cell membranes — so target insects cannot build genetic resistance over successive generations, unlike neurotoxic synthetic chemistries.

Safety & environment: non-toxic to human applicators, avian species and aquatic ecosystems; readily biodegradable, with an initial 60% degradation reached within 8–9 days in soil and water and over 99.9% eventual breakdown — leaving beneficial soil microflora and natural predators intact.

REGISTERED CROPS (EAA LICENSE)

TOMATO — LEAF MINER

MAIZE — FALL ARMYWORM

CABBAGE — APHIDS

ONION — THRIPS

PILOTED & FIELD-VALIDATED (REGIONAL)

AVOCADO

MANGO

LEMON & ORANGE



PROVEN IN THE FIELD



Independent field trials by the Ethiopian Institute of Agricultural Research (EIAR) at Holeta and Melkassa confirmed strong contact-kill performance with no adverse effects on crops, applicators or the environment.

- ▶ Pests tested: Tuta Absoluta, aphids, thrips, Persea mite, broad mite, Fall Armyworm.
- ▶ Field-validated in South West Shewa, Arsi, Shaggar City, Hirna & Arsi-Bale (Oromia), plus grower pilots in Mojo and Bulbula Dambal.
- ▶ No skin irritation or respiratory discomfort reported by applicators or observers.

REGISTRATION & ENDORSEMENT

Officially registered by the Ethiopian Agricultural Authority (EAA), Reg. No.

ET/EAA/IN/MB/R432/2025, valid through September 2030. Registration is further reinforced by a formal support letter from the Ministry of Agriculture (MoA), backing BTNG's suitability for national extension use and scale-up.



MARKET & CLIMATE POTENTIAL

~27M L/YR
ADDRESSABLE DEMAND AT SCALE*

180,000 t
CO₂e AVOIDED PER YEAR*

1.8M t
CO₂e AVOIDED OVER 10 YEARS*

* Directional planning estimates: assumes 50% adoption across Ethiopia's ~36 million ha of cultivated land at 1.5 L/ha/season, against a conservative avoided-emission factor of 10 kg CO₂e/ha/year — not a validated market survey.

WAY FORWARD — CALL FOR PARTNERSHIP

Soil and More Ethiopia invites the following partners to scale BTNG's impact:

- ▶ **Cooperatives & unions** — secure direct supply lines ahead of each cropping/irrigation cycle, as piloted with the Bulbula Dambal Irrigation Development Cooperative Union.
- ▶ **Government extension programmes** — integrate Geraniol 20% SC into regional IPM extension manuals alongside composting and biochar practices.
- ▶ **Distributors & agro-dealers** — expand access as registration extends beyond tomato, maize, cabbage and onion to avocado, mango, citrus and beyond.
- ▶ **Climate finance & carbon partners** — explore emission-avoidance and soil-carbon co-benefits as adoption scales nationally.

PROGRAMME CONTACTS

Hussen Ahmed
Managing Partner
hussen.ahmed@soilandmoreethiopia.com

Messay Sintayehu
Program Manager
messay.sintayehu@soilandmoreethiopia.com

Diriba Yeneneh
Project Officer
info@soilandmoreethiopia.com