The Quantum Growth® Series

Ecological Laboratories INC.
Solving Environmental Problems Naturally Since 1976

SPECIFICATION SHEET

QUANTUM-ORGANIC TOTAL™

Beneficial Soil and Plant Microbial Inoculant

DESCRIPTION

Quantum-Organic Total is a plant and soil inoculant that restores and enhances the foundational levels of soil biology (also known as the soil food web). This product incorporates highly specialized photosynthetic and heterotrophic bacteria into a diverse microbial formulation that provides unprecedented plant enhancement at foliar, root and rhizosphere.

PERFORMANCE CHARACTERISTICS

When used as a foliar or soil application, Quantum-Organic Total directly impacts plant vigor and performance by:

- Improving nutrient uptake
- Improving plant photosynthesis
- Improving root and shoot growth
- Fortifying plant natural defense systems
- Promoting water production and retention

PRODUCT CHARACTERISTICS

Highly concentrated – Provides over one million colony forming units per milliliter.
Safe and easy to use – Non-toxic and contains non-pathogenic bacteria. It may be applied as a foliar or root drench and is compatible with most types of irrigation systems to include: speed sprayer, boom sprayer, pivot irrigation, aerial spray, micro-jet, etc.
No re-entry restrictions.
Easy storage – Does not require refrigeration.
Long life – Shelf stable for 2 years (unopened) and 1 year (opened).

Properties

Guaranteed Bacterial Analysis:	*Rhodopseudomonas palustris*	1,000,000 cfu/mL
	Bacillus subtilis	10,000,000 cfu/mL
	Bacillus licheniformis	10,000,000 cfu/mL
	Bacillus pumilus	10,000,000 cfu/mL
	Bacillus amyloliquefaciens	10,000,000 cfu/mL
Fertilizer Analysis:	No NPK; fertilizer analysis of 0-0-0	
pH:	6.9-8.0	
Specific Gravity:	0.9958	
Particle Size:	100% through 100 micron/140 mesh	
Appearance:	Brown to black liquid	
Odor:	Pungent and distinctive earthy odor	
Packaging:	Plastic 1 gallon bottles, 5 gallon totes, 30 gallon & 55 gallon drums and 275 gallon totes (mini-bulks)	

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Storage/handling: Shake/agitate before use. Re-cap as soon as possible. Store between 32°F/0°C and 110°F/43°C.

DIRECTIONS FOR USE

Row Crops – 64 oz per acre in furrow or within 14 days of emergence; (optional) 64 oz per acre with side dress

Grains (Irrigated) – 64 oz per acre at planting; 64 oz per acre at seed head development.

Grains (Non-irrigated) – 1 gallon per acre at planting.

Turf (Golf) – Initial application of 8 oz per 1,000 ft^2 on tees and greens; 4 oz per 1,000 ft^2 every 14 days.

Turf (Sod & Sport) – Initial application (including at planting) 1 gallon per acre; 64 oz every 30 to 45 days.

Vegetables (Greenhouse) – Water in seeds with 4 oz per gallon.

Vegetables (Outplanting) – Root dip or drench with 4 oz per gallon; 64 oz per acre every 14 to 21 days.

Citrus (fair to good condition):

1 gallon	Pre-bloom or early bloom
	Full bloom or 2/3 petal fall
	With summer spray*
	With fall spray*
	6 to 8 weeks prior to harvest

Citrus (poor condition):

1 gallon	As a foliar* or through ground irrigation every 30 days

Optional Foliar Spray Program:

2 gallons	Feb/Mar
	Jun/Jul
	Sept/Oct
	Nov
	6 to 8 weeks prior to harvest

New Plantings/Resets:

2 oz per tree	At transplant with watering in solution

* if spray includes and form of a pesticide, apply Quantum Growth through injection into ground irrigation system

DO NOT MIX WITH FUNGICIDES OR PESTICIDES. When tank mixing, add the Quantum-Organic Total last and apply within 0 to 12 hours.

For crop specific application rates and timing, visit www.GrowQuantum.com/product-application-rates.aspx

MADE IN THE USA