

## SPECIFICATION SHEET

# QUANTUM-1®

## Beneficial Soil and Plant Microbial Inoculant

### DESCRIPTION

Quantum-1 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 heterotrophic bacteria into a diverse microbial formulation that provides unprecedented plant enhancement at the root and rhizosphere. The addition of humic material (sourced from peat) to the formulation, provides a readily usable carbon source.

### PERFORMANCE CHARACTERISTICS

When used as a foliar or soil application, Quantum-VSC 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 twelve million colony forming units per milliliter.

Safe and easy to use - Non-toxic and contains non-pathogenic bacteria. It may be applied as a root drench or as a foliar (diluted 10:1 with water) 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 3 years (unopened) and 1 year (opened).

### Properties

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<b>Guaranteed Bacterial Analysis:</b>	<i>Bacillus amyloliquefaciens</i> 33,000,000 cfu/mL
	<i>Bacillus licheniformis</i> 1,300,000 cfu/mL
<b>Fertilizer Analysis:</b>	4% humic acid; No NPK; fertilizer analysis of 0-0-0
<b>pH:</b>	6.5-8.0
<b>Specific Gravity:</b>	1.04 approximately
<b>Particle Size:</b>	100% through 100 micron/140 mesh
<b>Appearance:</b>	Brown/Black liquid
<b>Odor:</b>	Pungent and distinctive earthy odor
<b>Packaging:</b>	Plastic 1 gallon bottles, 5 gallon totes, 30 gallon & 55 gallon drums and 275 gallon totes (mini-bulks)
<b>Storage/handling:</b>	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 at planting; 64 oz per acre at 14 to 21 days post planting; 64 oz per acre prior to full canopy.

**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<sup>2</sup> on tees and greens; 4 oz per 1,000 ft<sup>2</sup> 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.

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

For crop specific application rates and timing, visit [www.GrowQuantum.com/product-application-rates.aspx](http://www.GrowQuantum.com/product-application-rates.aspx).

