

Quantum Growth[®]

Beneficial Soil and Plant Microbial Inoculants



ENHANCE PLANT PHOTOSYNTHESIS

- Primary photosynthetic microorganism, **Rhodospseudomonas palustris** (~60% of formulation)
- Can produce physiologically active amounts of 5-Aminolevulinic Acid (ALA) which is a "building block" molecule for plant chlorophyll



IMPROVE NUTRIENT AVAILABILITY & TRANSFER

- Increases nitrogen availability – 9 species that fix nitrogen and 3 that produce ammonia
- Increase phosphorus availability; 6 species that solubilize phosphorus
- Includes microorganisms that can solubilize K, Fe, Zn, Ca, Mn, Mg & Mo



ENHANCE/RESTORE SOIL BIOLOGY

- Helps restore depleted biological communities
- Increases diversity and functionality of soil bacteria populations

GRAPES



SQUASH



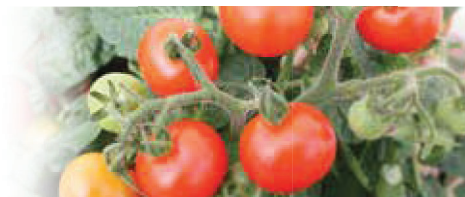
TOMATO



FL Fresh Tomato Trial w/ QG
 FL Fresh Tomato Trial w/ QG 50% fertility
 FL Fresh Tomato Trial w/ Organic QG
 CA Processing Tomato Trial w/ Organic QG



yield inc. 21%
 yield inc. 16%
 yield inc. 30%
 yield inc. 21%



FL Pepper Trial w/ QG
 FL Pepper Trial w/ QG 50% fertility
 FL Pepper Trial w/ Organic QG
 CA Bell Pepper Trial w/multiple Organic QG



yield inc. 17%
 yield inc. 16%
 yield inc. 16%
 yield inc. 16%

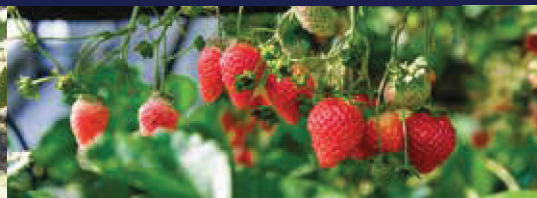
Lettuce



Table Grapes



Strawberries



3 x QG 1 gallon/ acre (\$90 total prod. cost)
 +112 cartons/acre valued at \$28 per carton
 +\$3,136 - \$90 = +\$3,046 per acre
34-fold ROI

4 x QG 1 gallon/acre (\$120 total prod. cost)
 +255 boxes/acre valued at \$17 per box
 +\$4,335 - \$120 = +\$4,215 per acre
35-fold ROI

4 x QG 1 gallon/acre (\$120 total prod. cost)
 +490 trays/acre valued at \$10 per tray
 +\$4,900 - \$120 = +\$4,780 per acre
40-fold ROI

FAQs

Storage, Tank Mix & Application FAQs

Tank Mix pH Tolerance: 7 to 8 = optimal, 5 to 9 = okay, <5 or >9 marginal to poor. No issues mixing with nutritionals that fall within pH guidelines.

Application: Can be applied as a soil drench and/or as a foliar. Minimum water application 25 gals per acre per irrigation session. Mix only with non-chlorinated water (to neutralize water chlorine levels mix in **ML Dechlorinator** first).

Chemical Application Timing: Allow 7-10 days after a pesticide (e.g. herbicide, fungicide, insecticide, nematicide, etc.) application before applying the **Quantum Growth** products.

Handling: Does not require special PPE nor are there any re-entry restrictions.

Storage: Do not freeze and keep core temperature of contain

Application Rates

General Application Rates and Timings (per acre):

Transplant/Bud Break	½ - 1 gal
Beginning of Bloom	½ - 1 gal
Fruit Set/Berry Closure	½ - 1 gal
(Optional) 3-4 wks before dormancy	½ - 1 gal

