



Smart Biochemistry for Strong Crops **OMEX**

Nourish the Soil, Fortify the Plant with **BioSap Q®**

Derived from sustainably harvested *Quillaja Saponaria*, **BioSap Q®** is rich in natural **triterpene saponins** and powerful plant hormones. It's designed to enhance plant growth, stress resistance, and yield-while offering suppression of pests and diseases.

BioSap Q® Key Benefits

- ✓ **Nematicide (in registration) :**
Reduces nematode populations and disrupts reproduction cycles
- ✓ **Anti-fungal and Bactericidal:**
Suppresses fungal pathogens and reduces bacterial diseases.
- ✓ **Bio-Stimulant:** Boosts root growth, nutrient uptake by improving soil microbe interaction and enhances resistance to stress.
- ✓ **Natural Surfactant:** Wetting agent that lowers water surface tension, significantly improving nutrient uptake and soil penetration



Rate: Use 1-2qts per acre every 20-30 days depending on severity
***Opportunities to alternate with current crop protection program**



Bio-Sap Q® Biochemical Blueprint

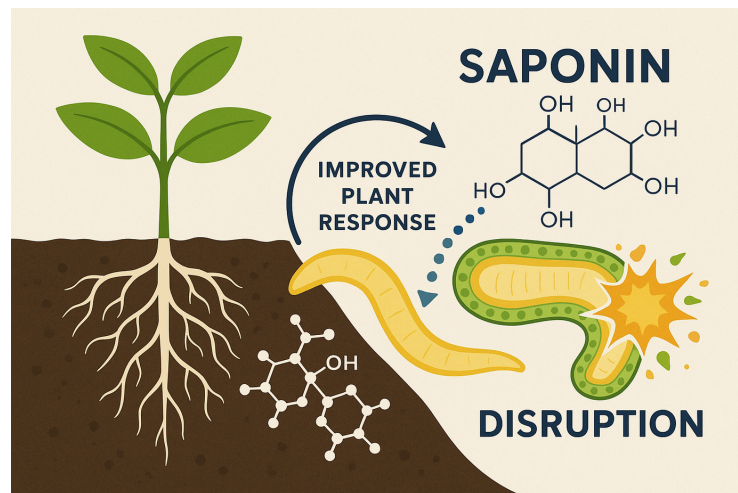


Mode of Action

Nematocidal Pathway

(In-Registration)

- **Membrane Disruption:** Saponins in Quillaja extract weaken nematode cell membranes by binding to sterols (flexible skin around the cell) causing leaks and cell rupture (lysis)
- **Paralysis:** Affects neuromuscular systems
- **Egg Hatch Inhibition:** Reduces juvenile emergence
- **Microbial Activation:** Promotes beneficial soil microbiota
- **Indirect Plant Defense:** Enhances plant immune responses



Efficacy Results:

Root Gall index reduction: 40-70%
 Soil Nematode Population: 50-80%
 Crop Yield Improvement: Up to 20%
 Improved Root Health & Mass

Phytohormones (content in ng/ml)	Amino Acids (content in mg/L)
45.48 IAA Auxin	135 Glutamic Acid
33.87 Cytokinin	158 Aspartic Acid
10,100 Salicylic Acid & 317 Jasmonic Acid	217 Alanine
Formula geared towards priming plant immunity, managing stress, and supporting controlled growth	Helps improve metabolic functions within plants, particularly in stress tolerance, nitrogen assimilation, and protein synthesis