



# Chitosan Liquid Fertilizer

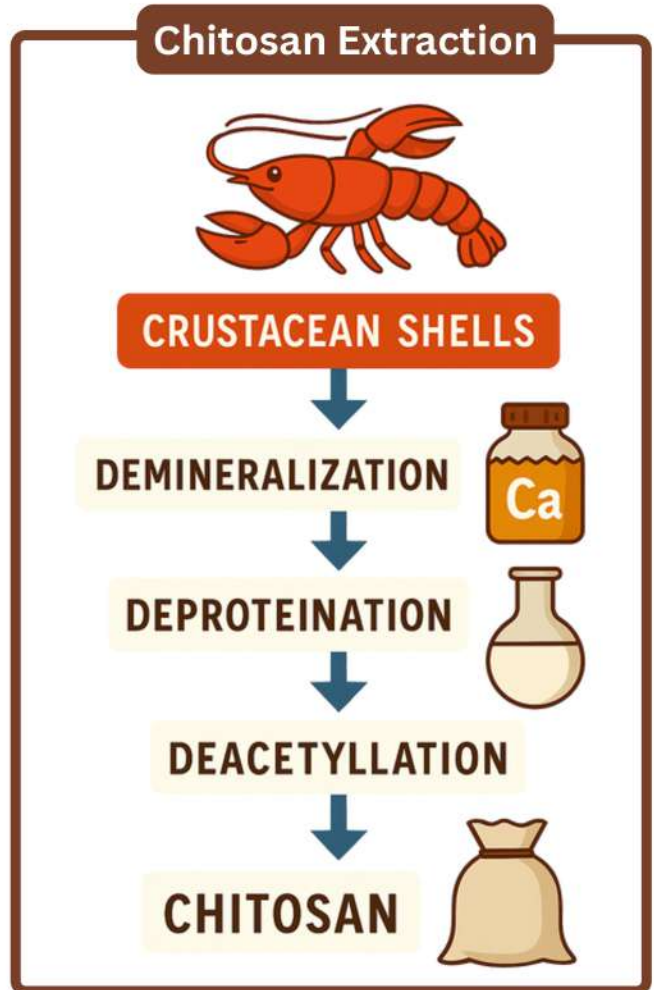
Natural biostimulant and elicitor



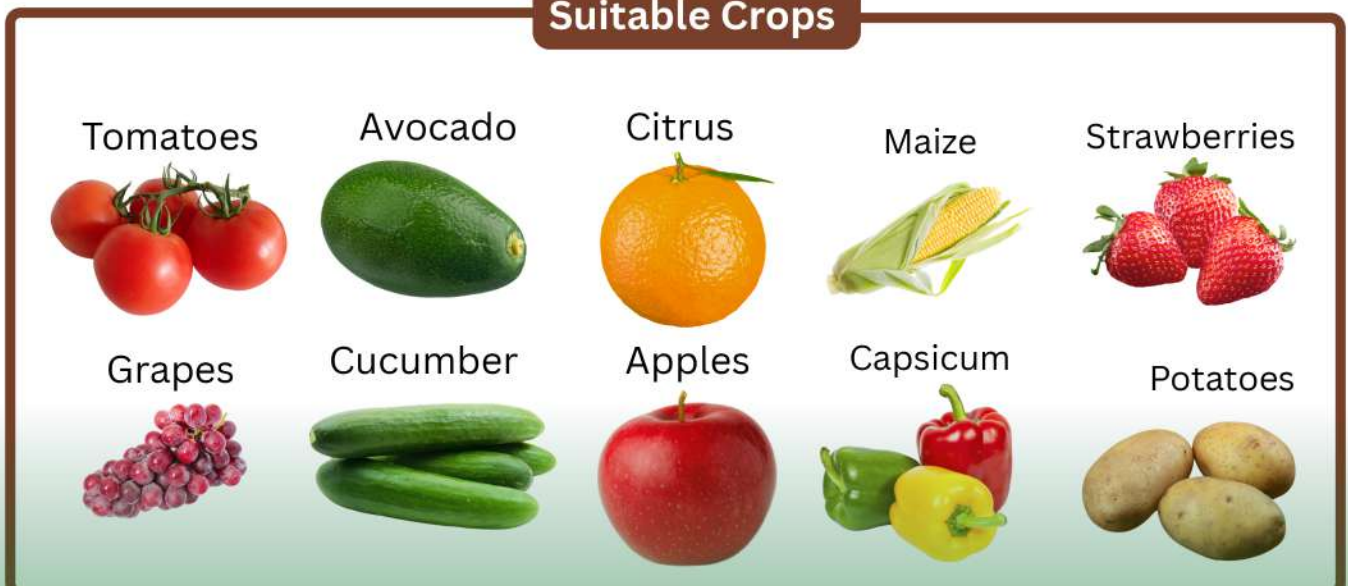
Enhance postharvest quality, and support sustainable, organic crop production with Chitosan Liquid Fertilizer.

- Chitosan Liquid Fertilizer is a natural biostimulant and elicitor derived from deacetylated chitin—an abundant polysaccharide found in crustacean shells—under controlled alkaline conditions, yielding a water-soluble polymer with elicitor activity.
- As a positively-charged biopolymer, it binds to plant cell membranes, triggering defense signaling pathways (e.g., MAP-kinases, callose deposition) that prime plants against pathogens.

INGREDIENT	CONTENTS (g/L)
N	≥60
P2O5	≥3
K2O	≥80
Amino Acids	≥60
Organic matter	≥150
Glucose	≥50
B	≥8
Zn	≥4
Mg	≥7.5



**Suitable Crops**



## Application Instructions

Growth Stage	Rate	Application Method	Purpose
2 weeks after transplant	2–3 mL/L water	Foliar spray	Induce early immunity, improve stress resistance
45 days after planting	2–3 mL/L water	Foliar spray	Reinforce disease resistance
Flowering Stage	2–3 mL/L water	Foliar spray (full canopy cover)	Promote flower set, reduce flower/fruit drop
Fruit Set & Development (monthly)	2–3 mL/L water	Foliar spray	Improve fruit firmness, disease protection
Pre-Harvest (30 days before harvest)	2–3 mL/L water	Foliar spray	Enhance post-harvest quality, prolong shelf life

**Before Chitosan application**



**More fruits and flowering after Chitosan application**



## Key Advantages

### For Seedlings

- **Enhanced Root Development:** Stimulates root hair growth and biomass accumulation, improving water and nutrient uptake .
- **Induced Systemic Resistance (ISR):** Activates defense genes against soil-borne pathogens like *Phytophthora cinnamomi*, reducing damping-off and root rot .
- **Reduced Transplant Shock:** Improves survival rates by fortifying cell walls and enhancing stress tolerance during transplanting .

### For Established Trees

- **Stronger Disease Resistance:** Elicits production of phytoalexins and PR proteins, curbing anthracnose, stem-end rot, and canker infections.
- **Improved Flowering & Fruit Set:** Enhances uniform bloom and reduces stress-induced flower/fruit drop, leading to higher and more consistent yields .
- **Postharvest Quality:** Forms a natural, edible film that slows moisture loss, increases fruit firmness, and extends shelf life by up to 4 days .
- **Enhanced Vigor & Canopy Health:** Promotes chlorophyll synthesis and canopy density, improving overall photosynthetic efficiency .
- **Reduced Chemical Inputs:** Lowers the need for synthetic fungicides and PGRs, cutting residue risks and input costs .

## Benefits

- **Resilient Orchards:** Trees fortified against major fungal diseases naturally.
- **Higher Yields:** More uniform flowering and fruit retention translate to increased marketable produce.
- **Longer Shelf Life:** Enhanced firmness and reduced postharvest losses support export quality.
- **Sustainability:** Supports organic certification, improves soil health, and cuts down on chemical residues.
- **Economical:** Lowers overall pesticide and regulator costs through preventive elicitation.

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