Benefits of Algae for Improved Soil Health Healthy soil creates the conditions for the following improvements.	Dead Algae	Live Algae
Increases organic carbon content in soil Improves soil fertility and nutrient holding capacity	<b>✓</b>	<b>~</b>
Increases yields Increases crop value per acre	<b>~</b>	<b>~</b>
Increases soil porosity Increases water and nutrient storage capacity; allows for easier root growth	×	<b>~</b>
Utilizes native algae species Algae is adapted to environment	×	<b>~</b>
Increases water retention capacity of soil Enhances water use efficiency	<b>✓</b>	<b>~</b>
Offsets synthetic fertilizer needs Increases sustainability of farming practices	<b>~</b>	<b>~</b>
Has a symbiotic Relationship to other microbes (bacteria, yeast, fungi) Increases beneficial microbial populations — healthier soil generally	×	<b>~</b>
Produces CO2 carbonic acid to loosen soil Increases soil porosity	×	<b>~</b>
Secretes polysaccharides Increased soil aggregation, water and nutrient retention	×	<b>~</b>
Provides nutrition for microbial community Increases microbial activity	<b>~</b>	<b>~</b>
Reduces salt stress Increased productivity in saline soils	<b>✓</b>	<b>~</b>
Stabilizes soil aggregates Reduces soil particle breakdown	<b>✓</b>	<b>~</b>
Increases populations of beneficial organisms Increases microbial diversity - healthier soil generally	<b>✓</b>	<b>~</b>
Secretes substances that can protect root systems Increases plant resilience to stressors	×	<b>~</b>
Exudes nutrients and other valuable compounds into the soil Better nutrient use	×	<b>~</b>
Secondary metabolites release phosphorus in soil Enhanced nutrient usage	×	<b>~</b>

Benefits of Algae for Improved Soil Health Healthy soil creates the conditions for the following improvements.	Dead Algae	Live Algae
Produce phytohormones that can influence plant growth Increased plant growth	×	<b>~</b>
No associated supply chain costs Direct grower savings	×	<b>~</b>
Promotes soil crust formation Healthier soil	×	<b>~</b>
Increases hypotonicity Longer fruit shelf-life	<b>~</b>	<b>~</b>
Increases brix Better produce and increased market value	<b>~</b>	<b>~</b>
Binds soil particles Reduces soil erosion	<b>~</b>	<b>/</b>

