



Research & Development

The technology of SumaGreen products have been expanded and perfected through vigorous research and development over the last 10 years. SumaGreen is manufactured in a 25,000 square foot manufacturing facility housing specialized laboratories, blending operations and soil testing equipment utilizing the latest in technological offerings.

In addition to in-house laboratory research, extensive field research has been conducted through:

- Farm/Ranch field trials
- Greenhouse studies
- Replicated plot trials
- Specialized testing facilities

Products containing SumaGrow has been evaluated in various soil types and climate conditions throughout the United States as well as China, India, Vietnam, and others. Row crops, forage and hay crops, vegetable crops, fruit and citrus crops, ornamental flowers, and lawns and recreational turfs are reflective of the crops evaluated using the technology of SumaGrow.

The technology of SumaGrow has been rigorously challenged and is continuously tested to maintain and expand its abilities in the following areas:

- Increase crop yields
- Improve soil health and fertility
- Reduce the toxicity of chemical fertilizers
- Improve nutrient uptake
- Enhance the uptake of phosphorus
- Increase the movement of iron in the soil
- Loosen tight and compacted soils
- Improve the soil moisture condition
- Increase organic matter
- Increase the water holding capacity
- Hold exchangeable plant nutrients in the soil
- Improve micronutrient nutrition by chelation
- Improve the aeration of soil

Research results have overwhelmingly shown that SumaGrow:

- Increases crop yields
- Reduces fertilizer dependence
- Raises the nutrient density of food stuffs
- Lowers water needs

In addition to improved crop performance, SumaGrow has been evaluated for its efficacy in remediating soil contaminants, including coal refuse, and reducing soil erosion, nutrient leaching and water run-off. SumaGrow has also been tested for its abilities to decrease nitrate leaching and increase the water retention and holding capacity of soil.

Accurate research and development and excellent product performance requires that the quality control of SumaGreen will be closely monitored. Special care is taken that no external contamination occurs from preparation to bottling and shipment.

Research and development remains the driving force behind the unsurpassed technology of SumaGrow and will continue to be central in its expanding role in the conservation of agriculture and sustainable farming.