

# TRIAL RESULTS

## EXECUTIVE SUMMARY



# CABBAGE - CALIFORNIA

Research on the effect of products containing SumaGrow® on Cabbage at Holden Research and Consulting in Camarillo, California

RESULTS		
Treatment:	11-8-12 (g)	11-16-12 (g)
SumaGrow® plus + 80% grower standard	8.4	25.0
Grower Standard	4.8	12.4
increase in root mass	+ 75%	+ 102%

*This particular trial was conducted by a specialized testing facility. The manufacturer believes the results would have been significantly better using a product containing SumaGrow® had the trial followed the recommended fertilizer reduction of 50%. As demonstrated in numerous other studies, fertilizer reduction is a necessity to obtain the maximum benefits when using a product containing SumaGrow®.*

### CONCLUSION:

Penetrometer testing measures the compaction or “softness” of the soil. The softer the soil, the greater its water holding capacity and the greater amount of water available to the plant. The penetrometer (at 300 psi) went from 6” for the grower standard replicates, treated with the standard fertilizer recommendation and without a product containing SumaGrow®, to 17.8” for the replicates treated with one gallon per acre of a product containing SumaGrow® and a 20% reduction in fertilizer inputs.

Because moisture loss begins at the surface of the soil, when the top six inches dry out, the grower standard roots are left without water. The treated roots still have almost 12 additional inches of soil with moisture remaining to obtain water for cabbage growth and development.

The reduced compaction is evident in the increase of root lengths present in the chart below. As the report conclusion states, “The root development as reported on both reading dates indicates significantly better root development for the treated crop over the grower standard crop of cabbage.”

### PRIMARY POINTS:

**Crop:** Brassica Oleracea Capitata  
**Location:** Camarillo, California  
**Trial Date:** 2011

### TREATMENT APPLICATION:

**Grower Standard:** Fertilizer applied at 100% normal recommended rate  
**Comment:** No issue applying products containing SumaGrow®. No mixing problems or clogging of drip tape noted.

