



Tomatoes - Case Study

Situation - Reducing crop stress and improving soil health.

Result - 13% increase in yield

Location: Rochester, Victoria

Researcher: IK Caldwell

History: Tomatoes were transplanted in December.

Soil Improvement Program

Pre-plant: 500kg/ha New Era Premium; banded and cultivated into planting beds.

Biologicals: Actinobact 100ml/100L in water wheel at planting.

Root growth: Super Kelp (1% solution) in water wheel at planting and 2-3 foliar sprays (5L/ha) before initial harvest.

Soil Health: Fish Emulsion via irrigation at 5L/ha; 3-4 times.

Humus 26 via irrigation at 5L/ha; 3-4 times.

Nutrition: Managed via sap testing

Crop Stress: Super Kelp 5L/ha; 3-4 times; prior to heat stress events.

Results:

Visual This crop experienced extreme heat in late Jan/early Feb.

Assessment: The Soil Improvement block grew more rapidly and flowered earlier after severe heat stress compared to the untreated block. New growth was significantly longer than the untreated block which wasn't flowering at this stage.

Harvest: 13% yield increase with Soil Improvement Program; 600g extra "fresh" tomatoes per plant.

Yield: Soil Improvement Block - 5.1kg/plant

Regular Farm Program - 4.5kg/plant

Profit: Extra income: ~6t/ha extra yield at \$1/kg = \$6,000/ha.

Cost: \$650-700/ha



Tomatoes on soil improvement program growing strongly & flowering 7 days after severe heat stress.

