



# FIELD TRIAL RESULTS AND RECOMMENDATIONS

JANUARY - JULY 2018

## GREENHOUSE TOMATO TRIAL WITH VINELAND RESEARCH & INNOVATION CENTRE

### TRIAL DESIGN

- ◆ Trial conducted at Vineland Research and Innovation Centre in Vineland Station, Ontario to determine the efficacy of SYNERGRO® in fresh market greenhouse tomatoes. Endeavor tomatoes were tested for total cluster weight, average cluster weight, and average weight per fruit from January 2018 to July 2018.
- ◆ Each treatment was replicated six times within the greenhouse in a completely randomized block design (CRBD). Each replication consisted of two rockwool slabs, six plants per slab, 12 plants per replicate, for a total of 72 plants per treatment. The planting density for this trial was three plants/m<sup>2</sup>.
- ◆ SYNERGRO® was applied to each plant once per month for six months, for a total of six applications, at a rate of 16.8 L/ha (6.8 L/acre). This was compared to a grower standard control treatment.



FIGURE 1: Layout of the trial at Vineland Research and Innovation Centre



FIGURE 2: Endeavor tomato plants three days after transplanting



FIGURE 3: Fruit ripening after fifth application



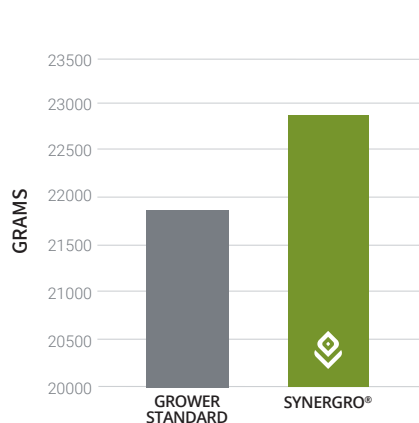
FIGURE 4: Greenhouse tomato plants in May 2018

\*IN-M1 is currently labeled as GARDEN SOLUTION® in the U.S. and SYNERGRO® in Canada.

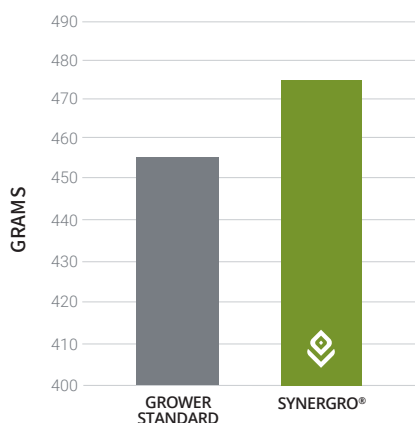


## RESULTS

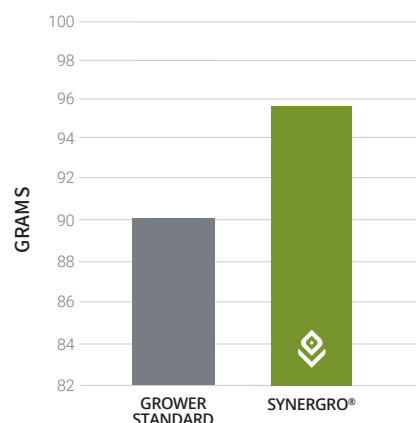
### TOTAL CLUSTER WEIGHT



### AVERAGE CLUSTER WEIGHT



### AVERAGE WEIGHT PER FRUIT



- ◆ The tomato plants responded to the SYNERGRO® treatment positively in every metric.
  - » **Total cluster weight (yield)** for treated plants was 22,819 g versus the grower standard yield of 21,851 g, a yield increase of 4.4%.
  - » **Average cluster weight** for treated plants was also 4.4% higher than for grower standard plants at 475.4g and 455.2g, respectively.
  - » **Average weight per fruit** for treated plants was 95.7g versus 90.0g for grower standard plants, an increase of 6.3%.
  - » While both treated and untreated plants produced the same number of clusters, **the treated plants produced a much higher yield due to the increased fruit size.**

- ◆ In addition to increasing yield, SYNERGRO® boosts soil and plant health. During the time of this trial, all of Vineland's experimental greenhouses except the one treated with SYNERGRO® needed additional powdery mildew treatment. While SYNERGRO® is not registered for the control of plant diseases, this result indicates that the treated plants had improved plant health.

## RECOMMENDATIONS

Apply following protocol established in research trial.

RATE	TIMING
16.8 L/ha or 6.8 L/acre	Apply SYNERGRO® once per month

IN-M1 (currently labeled as GARDEN SOLUTION® in the U.S. and SYNERGRO® in Canada) is a microbial technology for growers that sustainably improves plant health, boosts root and plant vigor, and increases yield, consistency and quality. It is designed to be active across a diverse range of high-value produce, geographies and for all types of modern growing systems from field to greenhouse to hydroponics, for both organic and conventional growers. More robust plants can better deal with the challenges of production agriculture, including transplantation of seedlings, poor soil, extreme weather and other biotic and abiotic stresses.

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