Symbiotic Agriculture

2024-25 Field Trial

Plant type: “Big Boy” Indeterminate Tomato

Competitive Field Trial vs. Competitor (“$Comp_w$“)

Summary: On 28 August 2025, we planted three “Big Boy” tomatoes, in 3 gallon pots. This was to establish a baseline of the SAI soil amendment, vs $Comp_w$, which also includes biochar+ compost+fungi. Base soil was fresh potting soil; all three pots got an initial dose of tomato fertilizer, and the same amount of water and sun. A second pot received a 50-50% dose (i.e. 24 cups) of the $Comp_w$ blend, the lowest amount that they recommend on their bag. A third pot received a 20:1 (2.3c) dose of the SAI soil amendment (compost+biochar+bacteria+fungi+a water retention ingredient). All three plants were planted at a height of 15cm on 28 August 2025. The control plant started with 1 tomato and some blossoms, the $Comp_w$ plant started with 2 tomatoes and some blossoms, and the SAI plant had blossoms and no tomatoes. *Note: the $Comp_w$ plant was planted with about 10x more soil amendment/pot compared to the SAI plant, using the $Comp_w$ planting recommendations and the SAI planting recommendations.*

21 September 2025 Update: the SAI treated plant (r) is growing about 2x faster than the $Comp_w$ plant (c), and about 1.5x faster than the control plant (l).

Photo 1: The three Big Boy tomatoes in the 3 gallon pots. The control is on the left, the $Comp_w$ is in the center, and the SAI treated plant is on the right.

7 October 2025 Update: We inspected the plants on 7 October 2025. The results are in the table below.

	Height	# Tomatoes	# Clusters	Avg Blossom/cluster
Control	54cm	4	3	4
$Comp_w$	46cm	3	2	3
SAI	83cm	3	4	5

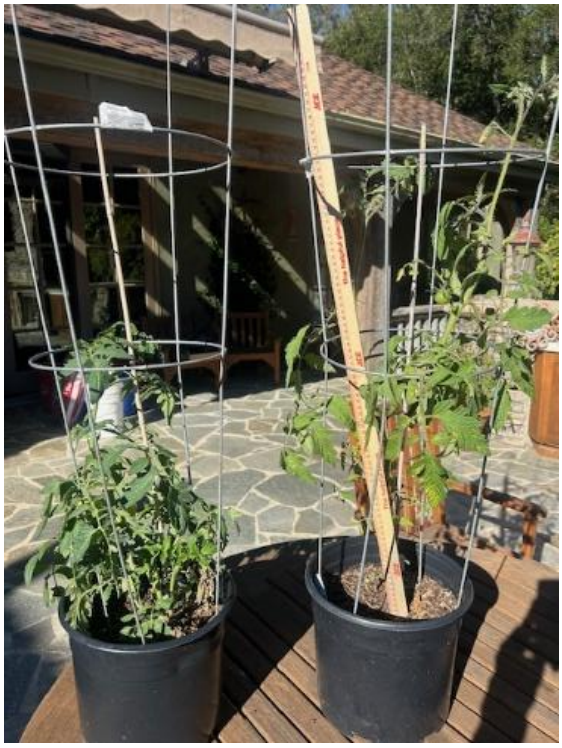

Photo 2: side by side photo of the $Comp_w$ plant on the left, and the SAI treated plant on the right. The height difference is obvious. If you look closely, you can see the clusters of blossoms, 2 for the $Comp_w$ plant, and 4 for the SAI treated plant.

The SAI plant has grown 219% taller ((83-15cm)/(46-15cm)) than the $Comp_w$ plant.

Regarding tomatoes: The SAI plant started with none, and has caught up to the $Comp_w$ plant.

20 October 2025 Update:

Photo 3: The $Comp_w$ (left) plant has 2 blossom stalks, with 3 blooms per stalk, for a potential of 6 tomatoes.
The SAI treated plant (right) has 6 blossom stalks, with 5 blossoms/stalk, for a potential of 30 tomatoes.

We will continue to monitor these plants, but expect frost to kill these plants prior to producing ripe tomatoes.

Not shown: the control plant still has 3 blossom stalks, with 4 blossoms/stalk.