



Dune™

Stabilized monosilicic acid that enhances nutrient transportation and promotes tolerance to abiotic stress through strengthening plant cell walls.



Continuum™

A co-cultured microbial consortium of plant growth promoting bacteria that improves plant growth, quality, and stress tolerance through natural processes like enhanced nutrient acquisition and water uptake.

Continuum & Dune Trial in Hydroponic Leafy Greens (Renato Zardo, commercial grower)

Trial Objective

To determine what yields more: a traditional biopesticide or products that proactively establish and feed of a healthy plant and rhizosphere? An expert commercial grower examined treatment differences between Fosphite biopesticide and a biostimulant program (Dune monosilicic acid and Continuum co-cultured microbial consortium) designed to support the members of a healthy growing ecosystem.

For full trial methodology and trial design details, contact James Marlier at james@impellobio.com.

Trial Summary

Ten plants of each of nine varieties of leafy greens were sampled from each of three treatment groups of Fosphite, a Dune and Continuum program, or an untreated control. **The average yield (oz/plant)** for each variety and the **percent increase in yield (*PIY)** compared to the untreated compared are summarized below.

Variety	Greenhouse 1										Greenhouse 2								Avg. PIY all varieties
	Mixx		Hurricane		Salanova		Crispy		Red		Zred		Hurricane		Salanova		Crispy		Average PIY*
Treatments	oz/ plant	PIY*	oz/ plant	PIY*	oz/ plant	PIY*	oz/ plant	PIY*	oz/ plant	PIY*	oz/ plant	PIY*	oz/ plant	PIY*	oz/ plant	PIY*	oz/ plant	PIY*	
Control	1.9	-	19	-	129	-	30	-	20	-	19.6	-	27.3	-	29.3	-	28	-	-
Fosphite	2.02	4.4%	19.7	4%	128.6	-0.8%	31.44	4.8%	20.58	3%	20.5	4.6%	27.7	1.6%	29.4	0.6%	28.1	0.2%	1.6%
Continuum + Dune	2.03	4.75%	20.95	10%	131.73	1.5%	31.10	3.5%	22.08	10.5%	20.53	4.5%	28.45	4.25%	30.65	4.75	29.13	4.25	4.25%

Results

For seven of the nine varieties, the biostimulant program application of Continuum and Dune increased yields relative to both the Fosphite treatment and the Untreated Control. In more than one leafy green variety, the biostimulant program increased yield over the untreated control by 10% or more. For two varieties, Fosphite had only negligibly elevated yields compared to Continuum + Dune. Across all varieties, treatment with a program of Continuum + Dune resulted in an average yield increase of **4.25%** compared to the control.

For full trial methods and details, contact James Marlier at james@impellobio.com.