

Lettuce

Trial Sheet

Increasing Lettuce Yields with Biostart Products



How it works

Biostart Mycorrcin is a soil biostimulant that activates beneficial microbes in your soil, stimulating healthy root growth and development leading to enhanced nutrient uptake and better crop establishment.

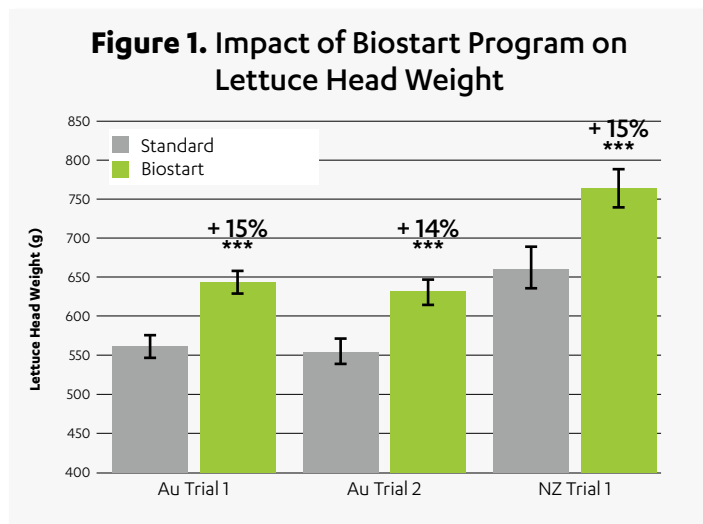
Biostart Foliacin is a foliar-applied plant health stimulant that helps plants to withstand environmental stress.

Lettuce Trial Results

All Trials were conducted in commercial crops in either New Zealand or Australia. The trials demonstrated that **Mycorrcin**:

1. Increases lettuce head size

In a trial at Murraybridge, the application of **Mycorrcin** (9 L/ha) to the seed bed one week prior to planting statistically significantly increased the average lettuce head weight by 15 and 14%, respectively. This is equivalent to an increase in head weight of 83 and 77 g/head, for Metalia and Santarinas, respectively (Figure 1).



In a Pukekohe trial, lettuce plantlets were drenched in **Mycorrcin** before planting, and the seed bed was treated with **Mycorrcin** after planting, followed by 3 x 0.5 L/ha **Foliacin** applications, this led to a 15% statistically significant increase in lettuce head weight from 662 to 764 g.

2. Improves lettuce quality

Field observations of the lettuces in the **Mycorrcin** treated plots were that the lettuces were larger, more uniform in size, had less misshaped heads and leaf colour was darker and more saturated (Figure 2).

Figure 2. Mycorrcin and Untreated Incised Leaf Lettuces in Pukekohe





3. Increased Commercial Harvest and Grower Returns

The **Mycorrcin** treated Santarinas beds at Murraybridge produced 90 pallets/ha of lettuce compared to 80 pallets for untreated beds giving a greater return on investment (Figures 2 and 3).

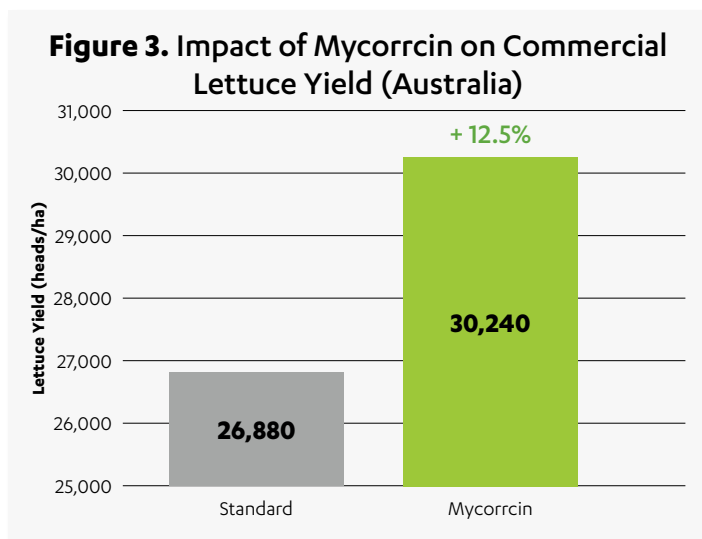


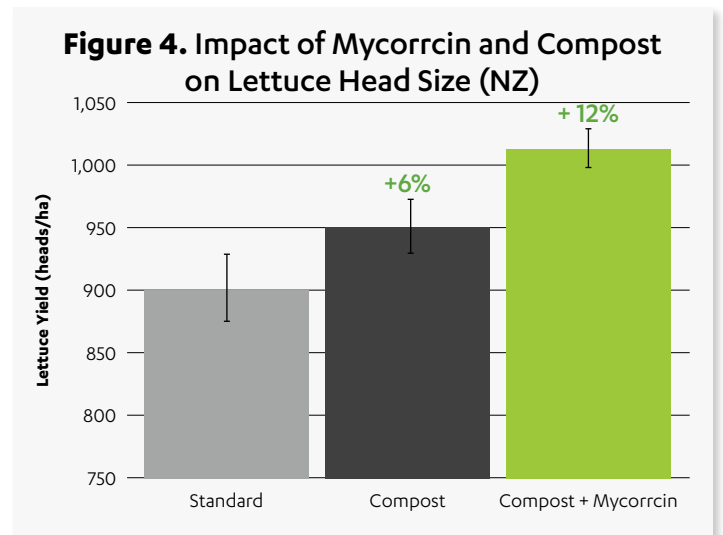
Table 1. Impact of Mycorrcin on Lettuce Returns (Australia)

Return on Investment – Santarinas	Untreated	Mycorrcin-treated
Total lettuce yield (heads/ha)	\$26,880	\$30,240
Gross revenue (\$1.48/head)	\$39,782	\$44,755
Mycorrcin cost (RRP \$17/L)		\$153
Net revenue	\$44,602	\$44,602
Gross margin increase		\$4,820



4. Improves the efficacy of compost applications

A Pukekohe trial with Exam-variety lettuce plantlets looked at the impact of using **Mycorrcin** in conjunction with compost. Lettuce plantlets were drenched in **Mycorrcin** before planting, and the seed bed was treated with **Mycorrcin** prior to planting. Compost was applied at 10 T/ha to the top of the seed beds prior to planting and was not incorporated. The addition of compost increased head size by 6%, however the addition of **Mycorrcin** to the plantlet and seed beds increased lettuce head weight by 109 g/head (12%) from 902 to 1,011 (Figure 4).



5. Mycorrcin Improves Nutrient Uptake

Lettuces from Standard and Biostart-treated (**Mycorrcin** and **Foliacin**) plots were sent away for nutrient analysis. The results showed that **Mycorrcin** and **Foliacin** treatment had increased the uptake of calcium, potassium and magnesium by 19, 27 and 25%, respectively (Table 2).

Table 2. Impact of Mycorrcin on Lettuce Nutrient Uptake (New Zealand)

Lettuce Trial Pukekohe 2019	Standard	Foliacin & Mycorrcin	Difference
Potassium	7.7	9.2	19%
Calcium	1.35	1.71	27%
Magnesium	0.36	0.45	25%