

# Cauliflower

## Trial Sheet Cauliflower - Pukekohe 2020



**Mycorrcin** is a soil biostimulant which activates beneficial soil microbes to enhance root growth & nutrient uptake which lifts and improves yields and quality of crops.

**Foliacin** is a foliar biostimulant which activates beneficial foliar microbes, enhances photosynthesis and promotes plant resilience.

### Trial Description:

The trial was undertaken on a commercial market garden in Patumahoe Rd, Pukekohe, to establish the effect of the Biostart biostimulants, Mycorrcin and Foliacin, on autumn planted cauliflower. The trial was laid out as a replicated plot trial with all plots receiving the standard grower programme of fungicides, insecticides, herbicides and fertiliser. BioStart products were applied as a tray drench and by knapsack sprayer to the trial plots as follows:

1. Mycorrcin pre-soak (1:100) of seedling tray 3 weeks prior to planting
2. Mycorrcin 6 L/Ha applied to the soil 1 week after planting
3. Foliacin 1 L/Ha three foliar applications in weeks 1, 3 and 6

Heads were harvested by the commercial harvest crew and weighed immediately after cutting.



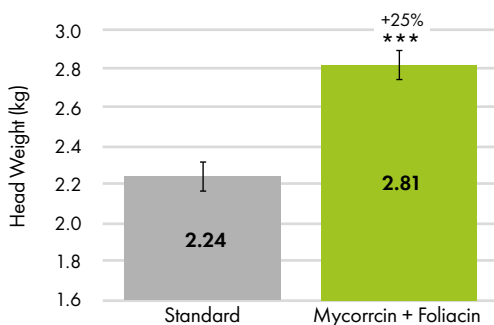
### Trial Results:

The Biostart Mycorrcin and Foliacin programme improved head size as well as the overall yield through increasing the percentage of marketable heads in commercial cauliflower crops.

#### 1. Increased individual cauliflower head weight

The Mycorrcin and Foliacin treatment statistically significantly increased cauliflower head weight by 0.57 kg/head (25%; Figure 1). This indicates that the BioStart treatments increased the maturity of this cauliflower crop, which led to an earlier harvest of marketable heads.

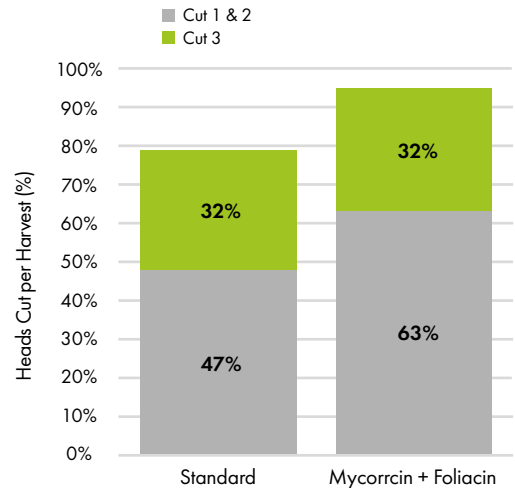
Figure 1. Mycorrcin and Foliacin Increase Cauliflower Head Weight



#### 2. Increased overall yield

The Biostart programme increased the heads harvested in the first two cuts from 47% to 63% a difference of 16%, or a 34% increase (Fig 2). The total number of cauliflower heads harvested over all three cuts was increased by 18% (from 79% to 95%; a 23% increase).

Figure 2. Effect of Mycorrcin and Foliacin on Cauliflower Harvest Recovery



#### 3. Improved commercial returns

The BioStart Programme cost \$434 and produced a \$7,726/ha increase in gross return (Table 1). The main impact has come from the increased number of heads harvested from the BioStart-treated plots over all three harvests.

	Standard	Mycorrcin + Foliacin
% Heads Harvest	79%	95%
Heads Harvested (/ha)	20,145	24,225
Crates/ha	2,518	3,028
Price/crate	\$16.00	\$16.00
Gross return (\$/ha)	\$40,290	\$48,450
Cost of BioStart (\$/ha)	\$0	\$434
Net return (\$/ha)	\$40,290	\$48,016
Difference (\$/ha)		\$7,726

Table 1. Commercial returns