

FEATURED CROP – NUTS

Biostimulant trial boosts almond crop yields

New trial results demonstrate that Mycorrcin, a biostimulant from Biostart, has been found to increase the size of young almond trees, as well as the amount and weight of both nuts and kernels, while also improving soil biology.

The trial was conducted over three years at Dinicola Almond Plantations in Lake Wyangan, near Griffith and compared the effects of four different biological products alongside the existing agrichemical and fertiliser program. Mycorrcin was one of the five products included in the trial, which was run from 2019 to 2022.

Biostart CEO **Jerome Demmer** said the trial involved newly established Chaster variety almond trees, which were two years old at the start of the trial and five years old by the end of the third year.

“Mycorrcin is a soil biostimulant designed to activate beneficial soil microbes that stimulate healthy root growth and development leading to higher nutrient uptake, faster crop establishment, and higher yields in young trees.”

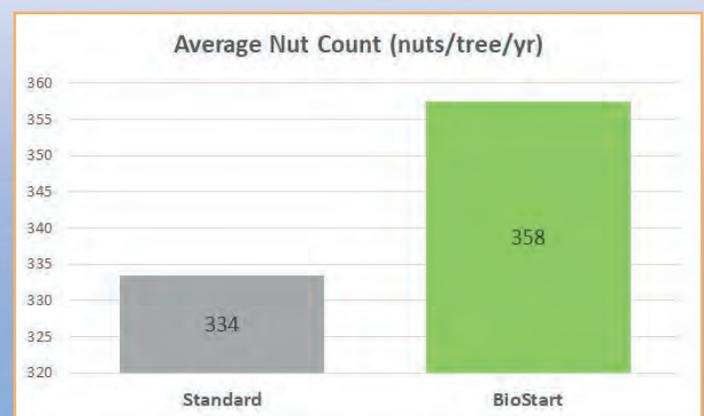
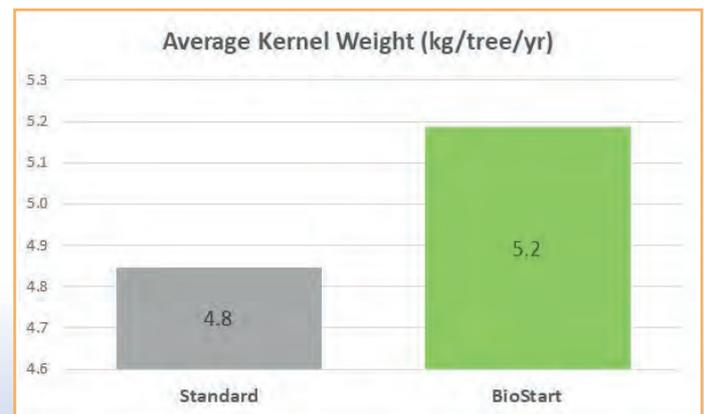
Mr Demmer said the biostimulant component of the program involved applying Mycorrcin three times over the growing season, including during flowering (August) at a rate of 6 L/ha, nut set/fill (October) at a rate of 3 L/ha, and nut fill/hull split (December) at a rate of 3 L/ha. All other fertiliser and agrichemical applications were the same for both the untreated and BioStart treated trees throughout the trial.

“Assessments were made of flowering, nut set, yield, soil microbiology, and canopy health using drone technology. The results of the trial show that the Biostart-treated trees had an increase in trunk butt growth, nut count, total nut yield, kernel yield, and soil biology.

“Specifically, the trunk butt growth increased by 4% per year over the three years of the trial from 22.8% (untreated trees) to 23.6%, nut count increased by 7%, and both total nut yield and kernel yield increased by 6% and 7%, respectively. Soil biology increased by more than 50% by the end of the trial.”

Mr Demmer said this resulted in an additional 364kg of kernels per hectare over the three years of the trial, occurring at a time when nut yields and returns are typically low in establishing orchards.

Most of the returns and yield increase occurred in Year 3 of the trial (when the almond trees were five years old), with the BioStart program producing a 131% return on investment during that time. The competitor product programs in the trial produced lower returns, with ROI's over the trial ranging from negative 85% to 85% positive ROI.



A three year trial of Biostart in almonds near Griffith produced a 130% return on investment with improvements in nut count, total nut yield and kernel yield.

