Huma® Breakout® Improves Blueberries Yield in Northwest, With Increased Yield and ROI of 7:1

Research Report

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Huma® Product: Breakout®

Background

Oregon is one of the top blueberry producing states. Increasing blueberry production in an economical way with a high return on investment will significantly benefit blueberry growers. **Breakout®**, a yield-enhancing product, has increased the yield of fruit producing crops such as tomatoes.

Objectives

This field study aimed to test the effects of Huma® **Breakout®** on blueberry yield and net gain.

Materials & Methods

This study was conducted on an eight-year-old highbush blueberry (cultivar: Elliot) orchard at the North Willamette Research & Extension Center of Oregon State University in Aurora, Oregon. It was a randomized complete block design with three replications. The first foliar application of **Breakout®** was at the prebud stage. The foliar application continued until the first flowering stage. Table 1 outlines treatment amount, timing, and frequency of applications. The crop was irrigated via a subsurface drip system as needed . The crop was harvested on August 21, with the yield determined by weighing each flat after machine-harvesting for both treatments.

Table 1. Treatment Details Applied to Highbush Blueberry Plants.

Treatment	Amount/A	Application Date	Days Between Spraying
Check	–	–	–
Check + **Breakout®**	2 qt	March 13	0
	2 qt	March 30	17
	2 qt	April 11	12
	2 qt	April 24	13
	2 qt	May 1	7

Results

Breakout® improved yield, though the result was not statistically significant (Figure 1). The Breakout treatment significantly increased fruit size (Table 2).

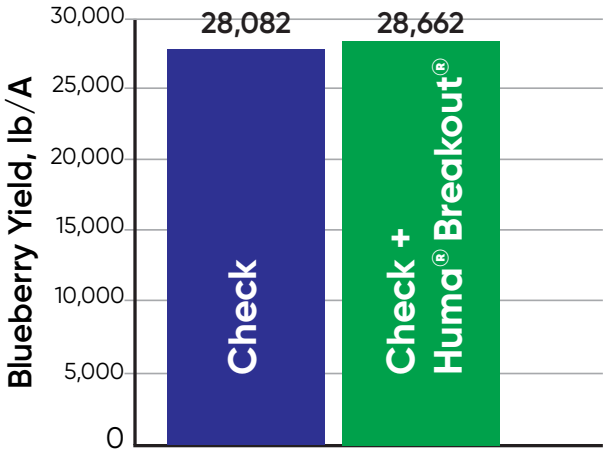

Figure 1. Treatment Effects on Blueberry Yield

Table 2. Blueberry Average Fruit Size Under Two Treatments.

Treatment	Berry Size (mm)
Check	15.0[b*]
Check + **Breakout®**	16.4[a]

** Mean followed with different letters are statistically different at Alpha < 0.05 by Duncan's multiple range test.*

Conclusions

Huma® **Breakout®** improved yield 580 lb/acre and the size of berries by 9% when compared with the Check. This **Breakout®** treatment resulted in over $600 per acre net gain and the return on investment of 7 to 1. The net income gain advantage was based on the assumption that the farmer will be paid the same price for both berry size group of the Check and the Breakout treatment.

However, it is common that the bigger size berries will be worth more per pound. In that case the net gain and the ROI would be higher than what is presented in this report. The positive effects of **Breakout®** on these highbush blueberry plants followed similar results from the research study by University of California on tomato yield.

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