

Guarantee®

Seaweed Extract

Increases Bean Yields and Plant Growth

Guarantee® increases yield in soybeans, green beans, and lima beans.

TRIAL 1

CROP

Soybeans

STUDY OBJECTIVES

To evaluate the effects on yield and plant growth of soybeans with **Guarantee®** Seaweed Extract in a field study.

LOCATION/SCIENTISTS

ACRES Research (Agricultural Custom Research); **University of Northern Iowa**; Cedar Falls, Iowa

Investigator: Bert Schou

Study Directors: Dr. Paul Syltie, Sarah Williams, Ph.D. (Ocean Organics)

DESIGN

Replicated trial with **Guarantee®** Seaweed Extract applied at 2 quarts/acre in the furrow at planting (5/19/14), then again (7/2/14) via foliar (V6-R1). A randomized complete block design was used.

RESULTS

Application of **Guarantee®** Seaweed Extract numerically increased total yield by 7% via foliar application.

Control (bu/ac): **53.075 a**

Guarantee® (bu/ac):
56.725 ab (+7%)

Guarantee® improved yield in green beans by 22% and in soybeans by 7%.



Use of Guarantee® whether in foliar application or drip application delivered higher yields.

TRIAL 2

CROP

Green Beans (variety 5630)

STUDY OBJECTIVES

To compare the overall yield enhancement provided by application of **Guarantee®** Seaweed Extract compared to a grower standard fertility program.

LOCATION/SCIENTISTS

Willamette Valley, Oregon.

Investigators: Dennis Roth (Wilco Cooperative), Grower cooperative trial.

Study Director: Sarah Williams, Ph.D. (Ocean Organics)

DESIGN

Guarantee® was applied three times at 1 quart/acre in a side by side grower cooperative trial. **Guarantee®** was applied in the furrow at planting, then again via foliar application just prior to bloom. Treated acres were 72 rows on 26" spacing and the field was 1033 feet long.

RESULTS

Grower Standard (G.S.): **5.9 tons/acre**
G.S + **Guarantee:** **7.2 tons/acre (+ 22%)**

TRIAL 3

CROP

Lima beans (Fordhook processing limas)

STUDY OBJECTIVES

- 1) To compare the overall yield and plant growth enhancement provided by application of Ocean Organics **Guarantee**® Seaweed Extract compared to a grower standard program.
- 2) To compare the efficacy of foliar versus drip applications of Ocean Organics' higher solids version of **Guarantee**® (H.S.). Although we hypothesized that the higher solids version of **Guarantee**® might produce additional benefits when applied via drip irrigation, we found that both foliar and drip applications resulted in similar increases in yield and plant growth.



Pictured above from left to right: Guarantee seaweed applied via drip, seaweed applied via foliar, untreated control.

LOCATION/SCIENTISTS

Camarillo, Ventura County, CA

Investigator: David Holden

Study Director: Sarah Williams, Ph.D.
(Ocean Organics)

DESIGN

Guarantee® (H.S.) was applied four times at 1 qt/acre: in the furrow at planting and three weeks post emerge, followed by two applications

In the lima bean study, whole plant weight was 33% higher with drip application and 44% higher with foliar application of **Guarantee®**

Treatment	Bean Yield (lbs/acre)	Whole Plant Weight (grams)
Untreated Control	3265	26.5 c
Guarantee (H.S.) (foliar)	3418	38.3 a
Guarantee (H.S.) (drip)	3435	35.3 ab

2-3 weeks apart. The product was applied either through foliar applications or drip irrigation using a randomized complete block design.

RESULTS

Guarantee® (H.S.) numerically increased lima bean yields when applied through both foliar and drip applications (+ 4.7, 5.2%) compared to the grower standard untreated control. Whole plant weight

was also statistically higher when **Guarantee**® was applied compared to the control (using both drip and foliar application methods, + 33.2, 44.5%). As there were no statistical differences between the two methods, it appears from this study that both foliar and drip methods of application can improve plant growth and production.

Ocean Organics is a manufacturer of high performance, scientifically proven seaplant-extract based biostimulants, plant growth materials and granular fertilizers. Our state-of-the-art products contain unique and proprietary constituents. Founded in 1977, we are the developers and manufacturers of the Emerald Isle foliar fertilizers and biostimulants, now owned and distributed to professional turf and ornamental markets by Lebanon Turf Products. Our materials have been tested in over 25 universities and independent laboratories.



Ocean Organics®

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