



 **HOLGANIX**<sup>®</sup>  
Soil Nourishing Root Stimulating<sup>™</sup>

# Product Performance Book

[holganix.com](http://holganix.com)



# BIO 800<sup>+</sup>

## **Soil Health. Yield. Sustainability.**

Holganix Bio 800<sup>+</sup> harnesses the power of over 800 species of soil microbes to increase yield, improve crop resilience against stress and boost soil health.

By charging soils with diverse microbes we help our farmers improve the health of their soils, investing in the legacy of their farm for future generations.

- Improve Soil Health
- Increase Yield
- Faster Establishment
- Boost Roots; Contributing To Soil Organic Matter And Plant Resistance To Stress
- Maximize Uptake of Nutrients, Minerals and Water
- Restores Needed Beneficial Soil Microbes Depleted By Tillage, Freezing, Flooding, Fungicides And Other Stressors



# CORN DATA

- Rate Recommendation: 0.5 gal per acre at planting
- Typical Yield Increase: 6-11 bu/acre
- Key Benefits:
  - Increased root mass
  - Thicker stalks
  - Larger ears with better fill

Several years of university and grower data have been compiled on Holganix Bio 800<sup>+</sup> on corn. The photos and testimonials enclosed are just a sample. For additional information please visit: [www.Holganix.com/Ag-data](http://www.Holganix.com/Ag-data)



Control

Holgenix Bio 800<sup>+</sup>

# CORN, CENTRAL ILLINOIS

## Unsolicited Customer Photo

Corn was planted on June 7 and was a corn on corn rotation. Picture was taken on October 1. Corn was planted on side-by-side rows 30 inches apart. The grower randomly decided a starting point and pulled 20 ears per row.

### Holgenix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre
App Timing:	At planting
App Method:	In-furrow
Other Products Used:	3.5 gal per acre 10-34-0 Fertilizer



Control

Horganix Bio 800<sup>+</sup>

# CORN, INDIANA

## Unsolicited Customer Photo

### Horganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre
App Timing:	At planting
App Method:	In-furrow
Other Products Used:	Starter Fertilizer. All other inputs were replicated in the control.

Control



Holganix Bio 800<sup>+</sup>



# CORN, WESTERN MISSOURI

## Unsolicited Customer Photo

Farmer planted on April 27. Photos above were taken on May 10. The Holganix Bio 800<sup>+</sup> treated crop demonstrates improved root formation compared to the control.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre
App Timing:	At planting
App Method:	In-furrow
Other Products Used:	All other inputs used were replicated in the control.



# CORN, WESTERN MISSOURI

## Unsolicited Customer Photo

The Horganix Bio 800<sup>+</sup> treated crop has improved root formation compared to the control.

### Horganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre
App Timing:	At planting
App Method:	In-furrow
Other Products Used:	Starter Fertilizer. All other inputs were replicated in the control.



Control | Holganix Bio 800<sup>+</sup>



Control | Holganix Bio 800<sup>+</sup>

# CORN, CENTRAL ILLINOIS

## Unsolicited Customer Photo

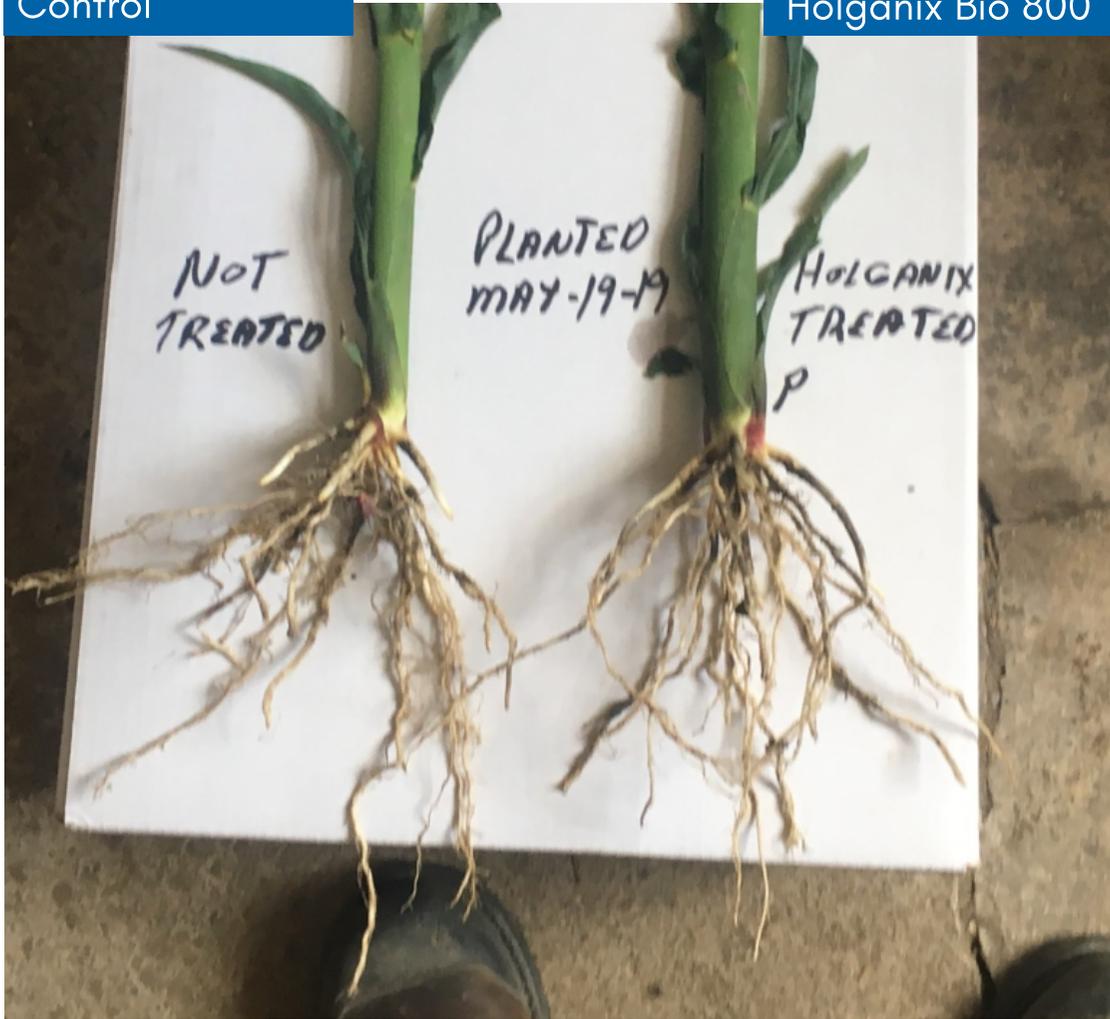
Corn was planted June 6. Picture was taken on June 28. Notice the improved crop development. According to the grower, "You can see the difference between the Holganix and the control in color and height from the road!"

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre
App Timing:	At planting
App Method:	In-furrow
Other Products Used:	Starter Fertilizer. All other inputs were replicated in the control.

Control

Holganix Bio 800<sup>+</sup>



# CORN, ONTARIO, CANADA

## Unsolicited Customer Photo

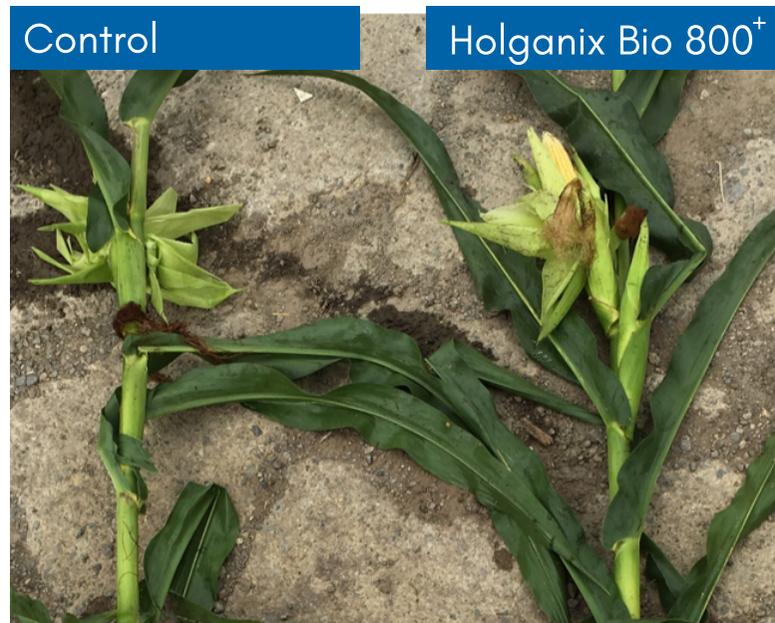
Planted May 19. Grower determined that the Holganix Bio 800<sup>+</sup> treated corn has larger brace roots and thicker stalks.

### Holganix Bio 800<sup>+</sup> Treatment:

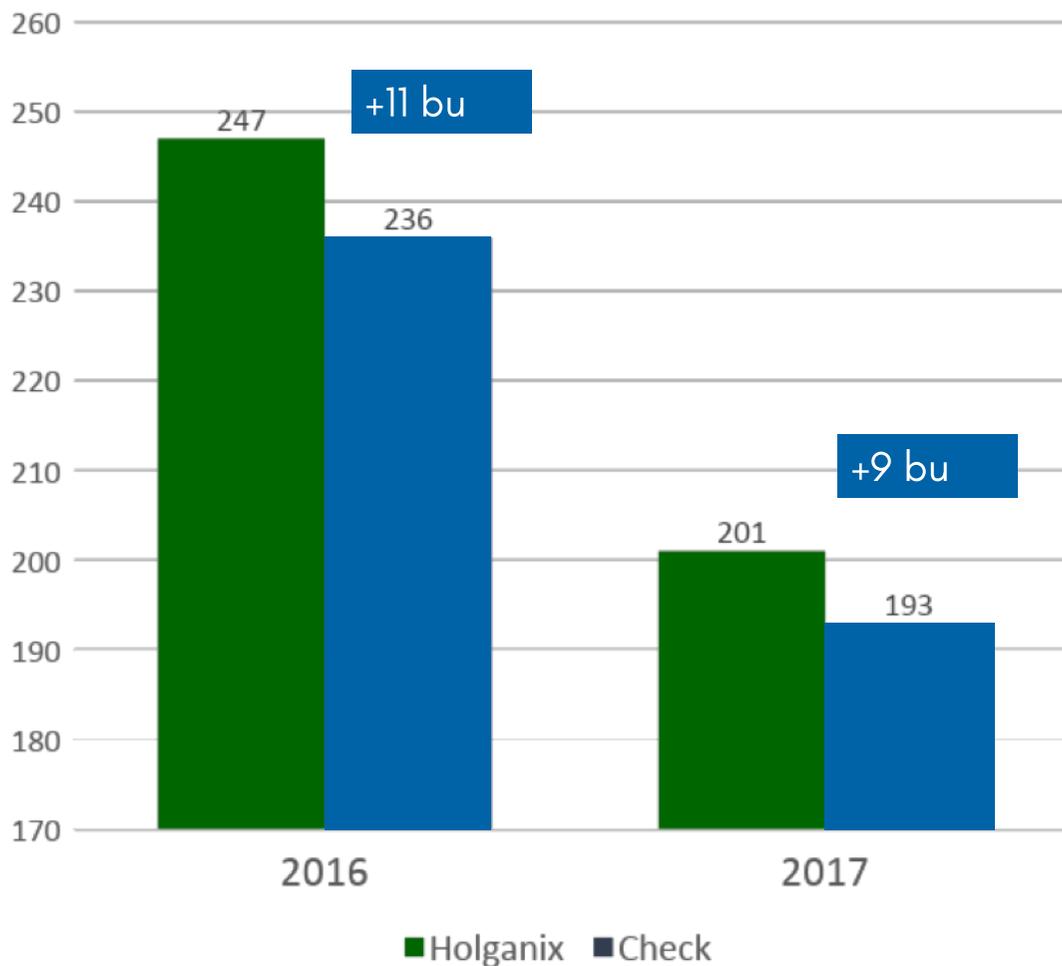
Rate:	0.5 gal per acre
App Timing:	3 weeks after planting
App Method:	Foliar
Other Products Used:	

# CORN, ONTARIO, CANADA

## Unsolicited Customer Photo



Photos are from the same grower on page 11. The photos demonstrate an increase in root mass and a thicker stalk on the Holganix-treated crop.



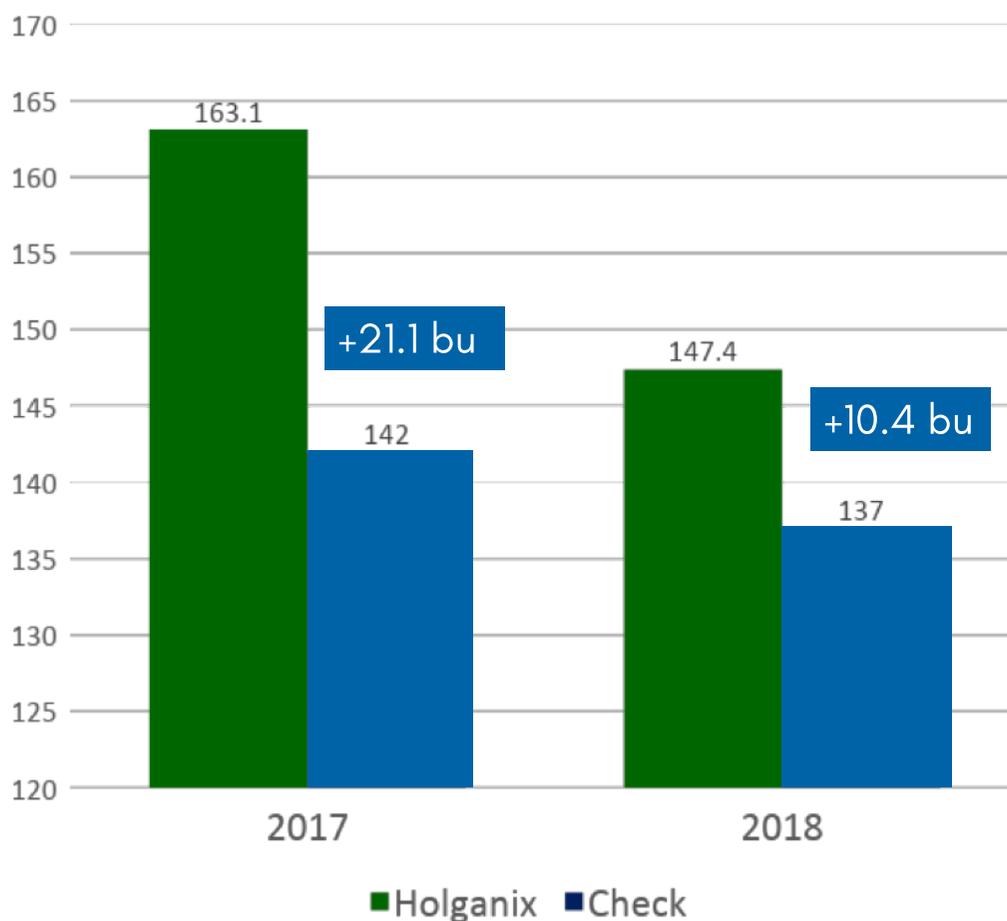
# CORN, NORTH CENTRAL ILLINOIS

## Third Party Research Farm Data

Replicated plots on non-irrigated land. The 2016 rotation was off of soy.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre
App Timing:	At planting
App Method:	In-furrow
Other Products Used:	All other inputs were replicated in the control.



# CORN, WESTERN MISSOURI

## Third Party Research Farm Data

"Best looking corn plot on the farm!" – Researcher.

Replicated plots, with 4 rows per rep. Rows were 500 feet. Land was not irrigated. In 2018, the land saw minimal rain and was very stressed.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre
App Timing:	At planting
App Method:	In-furrow
Other Products Used:	Standard Fertilizer. All other inputs were replicated in the control.



# SOYBEAN DATA

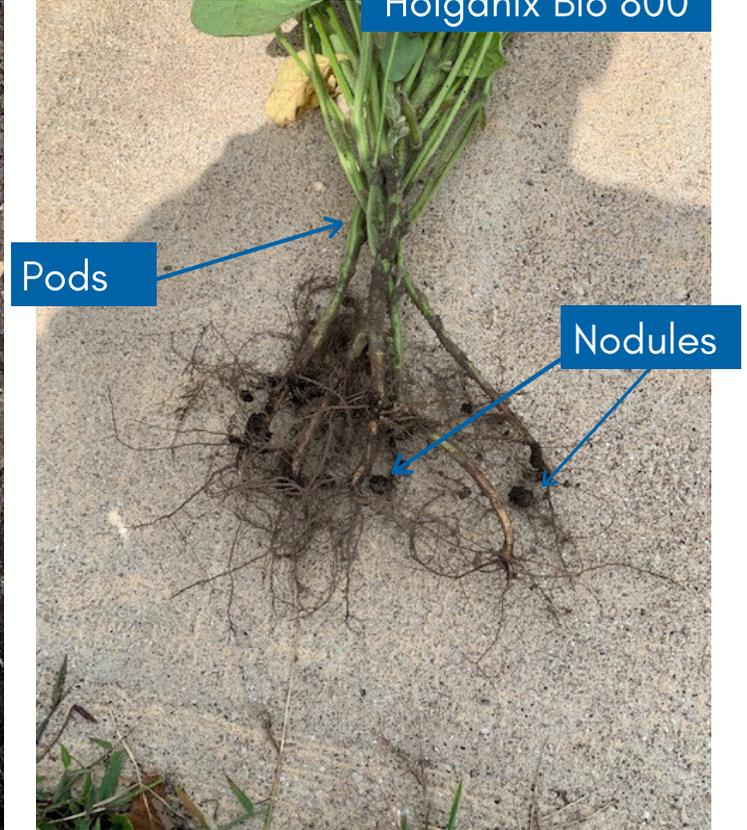
- Rate Recommendation: 0.5 gal per acre at planting
- Typical Yield Increase: 2-6 bu/acre
- Key Benefits:
  - Stronger stems
  - Improved pod set

Several years of university and grower data have been compiled on Holganix Bio 800<sup>+</sup> on soybeans. The photos and testimonials enclosed are just a sample. For additional information please visit: [www.Holganix.com/Ag-data](http://www.Holganix.com/Ag-data)

Control



Holganix Bio 800<sup>+</sup>



# SOYBEAN, WESTERN MISSOURI

## Unsolicited Customer Photo

Organic soybeans show improved root, nodule and pod formations with Holganix Bio 800<sup>+</sup>.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre
App Timing:	
App Method:	
Other Products Used:	100% Organic Grown



# SOYBEAN, NORTH DAKOTA

## Unsolicited Customer Photo

Soybeans were planted on June 15 due to hail damage that effected an earlier crop. According to the grower, "We noticed a difference in the rooting between the Holganix crop and the control pretty quickly."

### Holgenix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre
App Timing:	5 days after planting
App Method:	Foliar
Other Products Used:	

Control

Holganix Bio 800<sup>+</sup>



# SOYBEAN, NORTH DAKOTA

## Unsolicited Customer Photo

Same crop from previous page with picture taken just after flowering. The Holganix Bio 800<sup>+</sup> treated taproot runs 8 inches into the soil. The untreated crop did not penetrate hardpan below seed level.

Just prior to harvest, 11 inches of snow hit the field. The snow flattened the control, while the Holganix treated crop pulled 33 bu/ac.

Control

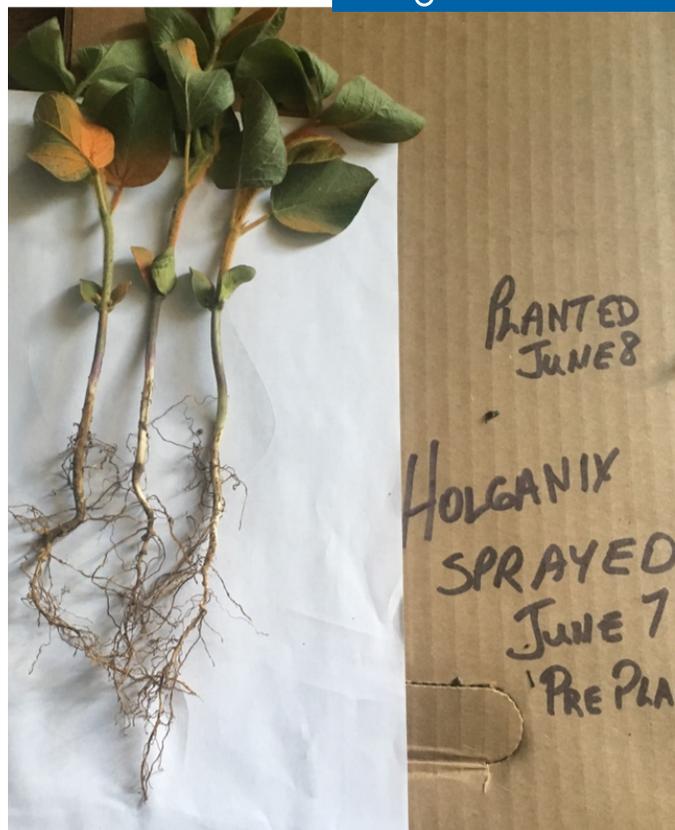
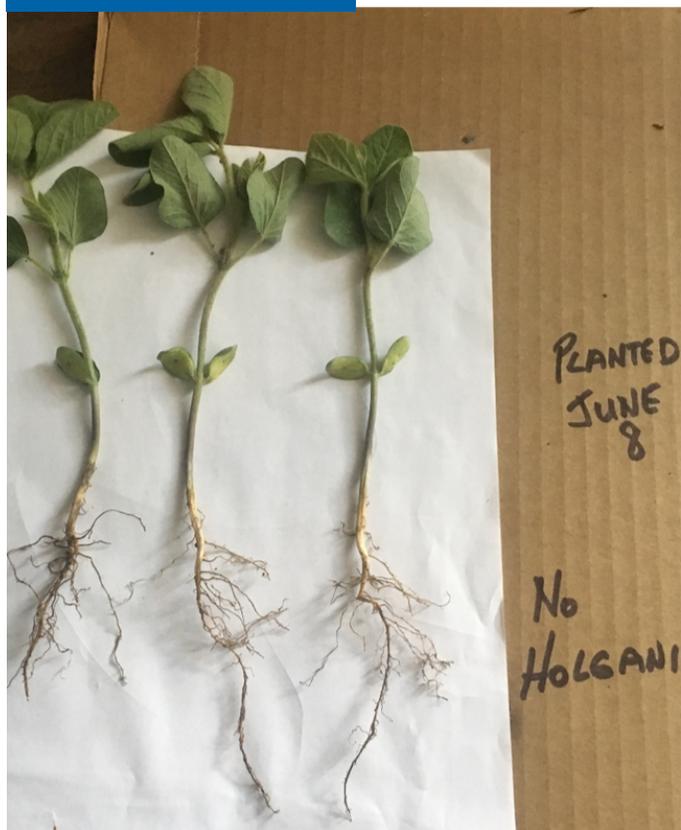
Holganix Bio 800<sup>+</sup>



# SOYBEAN, NORTH DAKOTA

## Unsolicited Customer Photo

Picture was taken in July. In addition to seeing improved root mass, the grower reports significantly more root hairs in the Holganix Bio 800<sup>+</sup> treated crop.



# SOYBEAN, ONTARIO, CANADA

## Unsolicited Customer Photo

Grower sees longer roots with more root hairs with Holganix Bio 800<sup>+</sup> crop. Note the orange spray paint was used by the grower to mark treated plants.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre
App Timing:	One day pre-plant
App Method:	Foliar
Other Products Used:	All other inputs were replicated in the control.

Control

Holganix Bio 800<sup>+</sup>

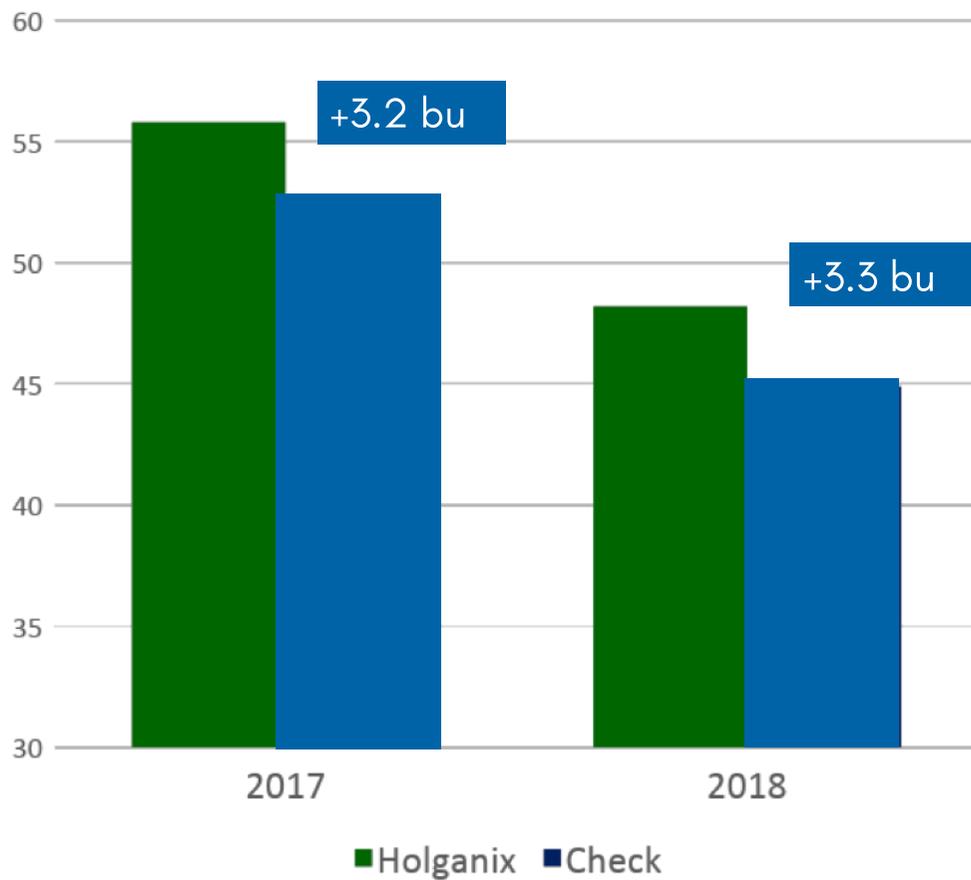


# SOYBEAN, ONTARIO, CANADA

Unsolicited Customer Photo

## Holganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre
App Timing:	One day pre-plant
App Method:	Foliar
Other Products Used:	All other inputs were replicated in the control.



# SOYBEAN, WESTERN MISSOURI

## Third Party Research Farm Data

Conditions: Replicated plots, with 4 rows per rep. Rows were 500 feet. Land was non irrigated. In 2018, the land saw minimal rain and was very stressed.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre
App Timing:	At planting
App Method:	In-furrow
Other Products Used:	Standard Fertilizer. All other inputs were replicated in the control.



# WHEAT DATA

- Rate Recommendation: 0.5 gal per acre at planting
- Key Benefits:
  - Increased root mass
  - More seed rows per head

Several years of university and grower data have been compiled on Holganix Bio 800<sup>+</sup> on wheat. The photos and testimonials enclosed are just a sample. For additional information please visit: [www.Holganix.com/Ag-data](http://www.Holganix.com/Ag-data)



Control

Holganix Bio 800<sup>+</sup>

# WINTER WHEAT, KANSAS

## Unsolicited Customer Photo

The Holganix Bio 800<sup>+</sup> treated crop has thicker, deeper roots than the control.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre in 15 gallons of water
App Timing:	5 days after planting
App Method:	Foliar
Other Products Used:	



Control

Holganix Bio 800<sup>+</sup>

# WINTER WHEAT, KANSAS

## Unsolicited Customer Photo

Same grower and spot as the previous pictures. Photo take in spring, 2019. Holganix Bio 800<sup>+</sup> treated crop is 43 inches tall with 17 rows of seed compared to the control at 39 inches tall and 13 rows of seed.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre in 15 gallons of water
App Timing:	5 days after planting
App Method:	Foliar
Other Products Used:	



# PRODUCE & SPECIALTY DATA

- Rate Recommendation: Vary depending on crop
- Key Results:
  - Higher yield
  - More extensive roots
  - Higher brix
  - Stronger plants

Several years of university and grower data have been compiled on Holganix Bio 800<sup>+</sup> on produce and specialty crops. The photos and testimonials enclosed are just a sample. For additional information please visit: [www.Holganix.com/Ag-data](http://www.Holganix.com/Ag-data)



# DATIL PEPPER, FLORIDA

## Unsolicited Customer Photo

According to the grower, "After growing Datil's for 15 years, I have never seen a crop so beautiful with fruit so large." The grower reports that the Bio 800<sup>+</sup> crop has increased vigor and a heavier fruit set compared to the control.

### Holgenix Bio 800<sup>+</sup> Treatment:

Rate:	2.25 gal per acre
App Timing:	Every other week
App Method:	Drip irrigation
Other Products Used:	50% less fertilizer used than the control



# SWEET PEPPER, INDIANA

## Unsolicited Customer Photo

According to the grower, "The high tunnel is 3,000 square feet but planted as if it were an acre. In other words, it's planted very tight. Results were terrific! I just pulled the pepper plant and the roots looked like they were trees."

### Horganix Bio 800<sup>+</sup> First App:

Rate:	1.5 gals per acre
App Timing:	Applied when plants were very young
App Method:	Foliar
Other Products Used:	Standard inputs

### Horganix Bio 800<sup>+</sup> Second App:

Rate:	1 gal per acre
App Timing:	Two weeks after first app
App Method:	Drip
Other Products Used:	Standard inputs



Control

Holganix Bio 800<sup>+</sup>

# EGGPLANT, PENNSYLVANIA

## Research Grower Data

The Holganix Bio 800<sup>+</sup> treated crops were taller, had more and earlier flowering compared to the control and had more extensive roots than the control.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	2 ounces per gallon of water
App Timing:	Immediately after planting, second application four weeks later
App Method:	Drench over the planted row
Other Products Used:	All inputs were replicated in the control.



Control

Holganix Bio 800<sup>+</sup>

# ONIONS, NORTH DAKOTA

## Unsolicited Customer Photo

The Holganix Bio 800<sup>+</sup> treated crop is larger and more developed than the control.



# PINTO BEANS, NORTH DAKOTA

## Unsolicited Customer Photo

This picture demonstrates Holganix Bio 800<sup>+</sup> at 0.5 gals per acre, at 1 gal per acre, compared to a control.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal and 1 gal depending on row
App Timing:	Post-emergence
App Method:	Foliar
Other Products Used:	All other inputs were replicated in the control.



Control

Horganix Bio 800<sup>+</sup>

# TOMATO, NORTHERN ILLINOIS

## Unsolicited Customer Photo

According to the grower, "The Horganix Bio 800<sup>+</sup> crops are very big and already setting tomatoes. I would say they are a good week ahead of the control."

### Horganix Bio 800<sup>+</sup> Treatment:

Rate:	1 quart per gal of water
App Timing:	At emergence, again when plant was 1 ft tall
App Method:	Foliar
Other Products Used:	

### Control Treatment:

Rate:	1 gal per acre
App Timing:	Two weeks after first app
App Method:	Foliar
Other Products Used:	



Control

Holganix Bio 800<sup>+</sup>

# TOMATO, INDIANA

## Research Grower Data

According to the grower, "Bio 800<sup>+</sup>-treated Tomatoes yielded 51.3 tons per acre while the untreated came in at 46.7 tons per acre. That's a 10x payback over the cost of the Bio 800<sup>+</sup> used per acre." The grower used the product over 4 years on processing tomatoes and saw 2-4 tons per acre yield increases.

### Holganix Bio 800<sup>+</sup> First App:

Rate:	2 gal per acre
App Timing:	At planting
App Method:	Foliar
Other Products Used:	Standard Inputs

### Holganix Bio 800<sup>+</sup> Second & Third App:

Rate:	1 gal per acre
App Timing:	At 4 and 8 weeks after transplanting
App Method:	Foliar
Other Products Used:	Standard Inputs



Control

Holganix Bio 800<sup>+</sup>

# TOMATO, MASSACHUSETTS

## Unsolicited Customer Photo

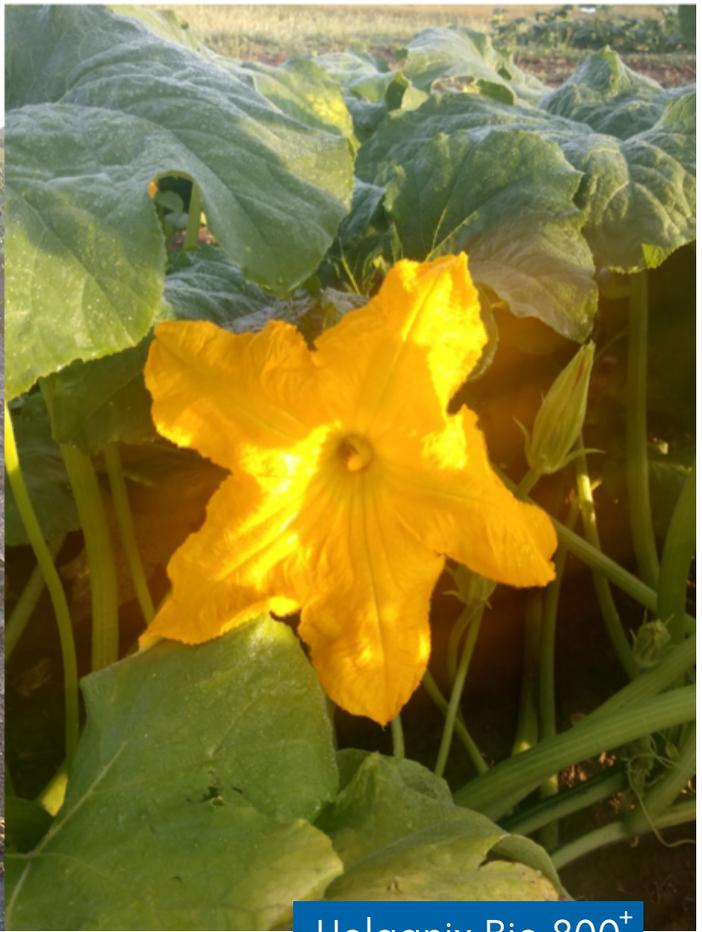
These tomatoes were grown in the ground in a greenhouse. The Holganix Bio 800<sup>+</sup> treated crops flowered two weeks earlier, the flowers were more profuse and they reached first fruit earlier than the control.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	2 oz per gallon of water
App Timing:	At transplanting
App Method:	Root dip
Other Products Used:	All other inputs were replicated in the control.



Holganix Bio 800<sup>+</sup>



Holganix Bio 800<sup>+</sup>

# PUMPKIN, NORTHERN ILLINOIS

## Unsolicited Customer Photo

According to the grower, "the Holganix Bio 800<sup>+</sup> pumpkins are very vigorous with very large blooms and very big plants."

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	1.25 gal per acre in 20 gal of water
App Timing:	Emergence, with two additional apps
App Method:	Foliar
Other Products Used:	Herbicides



Control

Holganix Bio 800<sup>+</sup>

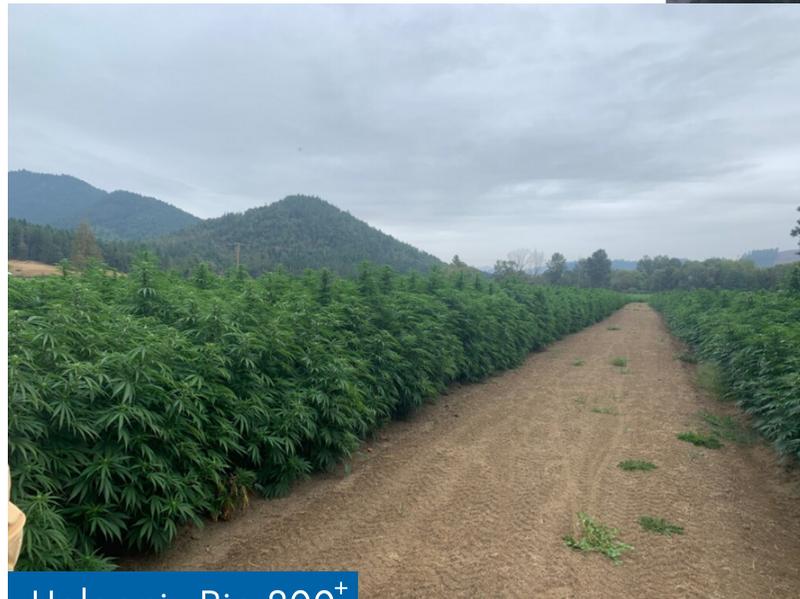
# CUCUMBER, KENTUCKY

## Unsolicited Customer Photo

The grower was able to harvest the Holganix Bio 800<sup>+</sup> crop earlier than the control, and the Bio 800<sup>+</sup> crop had a higher yield than the control.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	First application at 2 gal per acre, additional apps at 1 gal.
App Timing:	At planting, then apps at 4 & 8 weeks
App Method:	
Other Products Used:	



Holganix Bio 800<sup>+</sup>

Holganix Bio 800<sup>+</sup>

# HEMP, OREGON

## Unsolicited Customer Photo

All crops were treated with Bio 800<sup>+</sup>. The grower saw 3.2 - 4.1 lbs of flower per plant compared to neighboring fields that saw 2.2 pounds. The grower also saw an 18-21% oil yield and he saw a 0.01% loss after transplant. Please note that this is higher than our standard rate. For this grower, his ROI on yield, far outweighed the cost of the product.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	2.25 gallons per acre
App Timing:	Weekly
App Method:	Injection/drip tape
Other Products Used:	15-15-15 Fertilizer



Control

Holganix Bio 800<sup>+</sup>

# GUAVA, FLORIDA

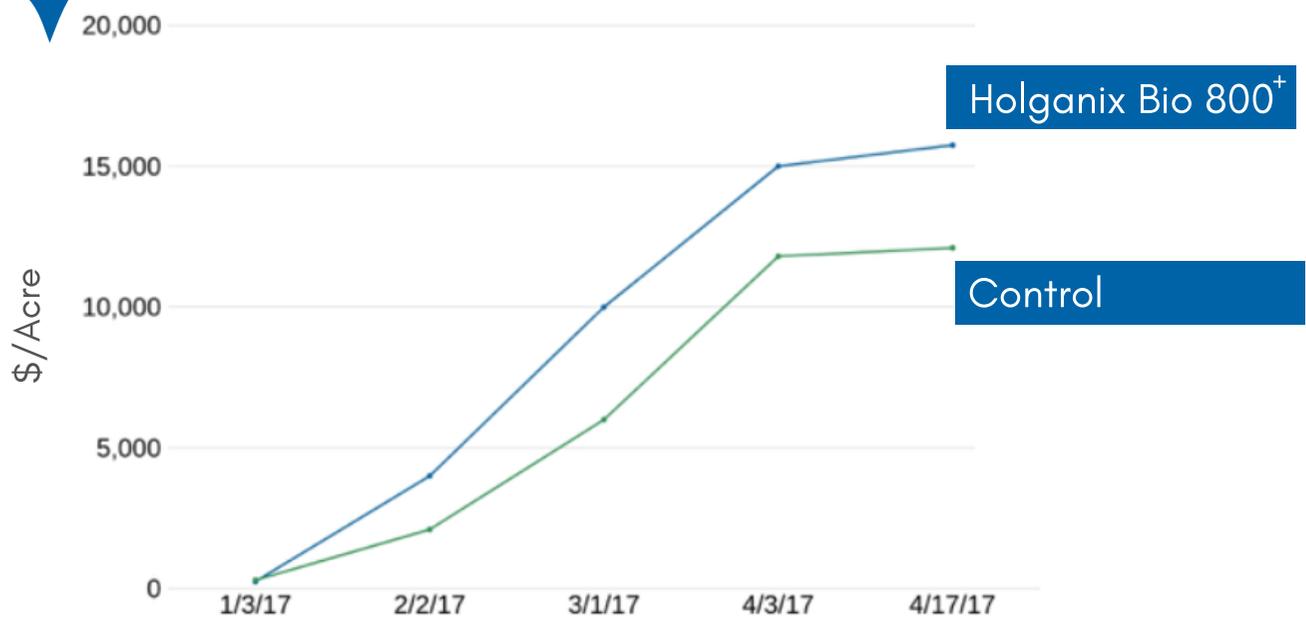
## Unsolicited Customer Photo

This grower has sandy and rocky soils. Notice the steep drop off in color between the Holganix Bio 800<sup>+</sup>-treated crop and the control.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	2.25 gal per 100 gal of water
App Timing:	1 application every 3 months
App Method:	Soil drench
Other Products Used:	All other inputs were replicated in the control.

**\$3,000 per  
acre yield  
gain**



# STRAWBERRIES, CALIFORNIA

## Research Grower Data

In Ventura County, California, a researcher used Holganix Bio 800<sup>+</sup> on a commercial field. He achieved a \$3,000 per acre higher yield in the strawberries and was able to harvest earlier than other growers.

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	2.4 gal per acre
App Timing:	1 application every month
App Method:	Drip
Other Products Used:	All other inputs were replicated in the control.



Holganix Bio 800<sup>+</sup>

# WINE, MASSACHUSETTS

## Research Grower Data

Alfalfa Farm Winery reports a 55% average increase in yield in their Sevyal Blanc, Leon Millot and Marechal Foch. In addition, they report that their brix index has increased by an average of 26% compared to the control. According to the grower, "we are very excited to see how Holganix continues to promote the health of our grapes."

### Holganix Bio 800<sup>+</sup> Treatment:

Rate:	0.5 gal per acre
App Timing:	Weekly from greening to harvest
App Method:	Mister sprayed to runoff
Other Products Used:	Insecticides



Control

Holgenix Bio 800<sup>+</sup>

Control

# TREE NURSERY, NEW YORK

## Unsolicited Customer Photo

The picture was taken in 2018 in late summer when temperatures were both hot and dry. The red maple trees were bare root planted in the spring of 2018. The trees that were treated with Bio 800<sup>+</sup> are a foot larger in growth and a 30% larger caliber.

### Holgenix Bio 800<sup>+</sup> Treatment:

Rate:	3.5 ounces per tree
App Timing:	At planting
App Method:	Soil drench
Other Products Used:	



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