

# NutriValent™ Series

## Bifunctional Organic Acid-, Sugar-Based Complexing Agents

Supporting global sustainability goals with novel, green chemistry that improves plant nutrition delivery and efficiencies in farming.

Nutrient deficiency can have a significant impact on Agriculture, resulting in reduced crop yield or plant quality as well as a decline in overall biodiversity.

With Solugen’s NutriValent™ line of sugar-based, bifunctional complexing agents, growers can deliver micronutrients and certain macronutrients more effectively via foliar applications, unlocking crop yield potential and enabling more profitable farming, healthier plant growth and production of quality fruits and vegetables while reducing carbon footprint.

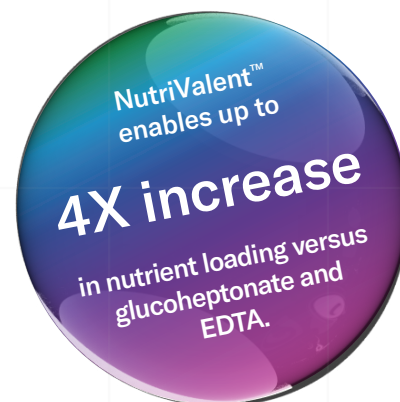
### Product Attributes

- Novel chemistry, first time introduced to Ag market
- Enables higher nutrition loading in formulation
- Complexes multiple nutrients in a single molecule
- Formulation flexibility with Boron
- Sugar-based metabolite enables efficient nutrient delivery and uptake inside plants
- Enables lower overall chemical usage, treatment costs, and GHG emissions
- Natural humectant
- Biodegradable
- Manufactured in the USA via carbon-negative, chemi enzymatic process



### Enable Higher Nutrient Loading vs. Incumbent Chemistries

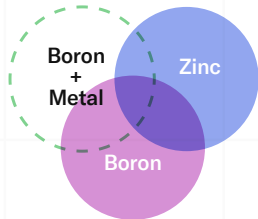
Product	% Nutrient				
	Ca	Mg	Zn	Fe	Mn
NutriValent™ X15	12	4	9	6.5	8
NutriValent™ M14	14	5	9.5	7	5.5
Glucosheptonate	10	4	7	6	5
EDTA	3	2.5	9	6	6





### Test Case 1: Corn Greenhouse Test

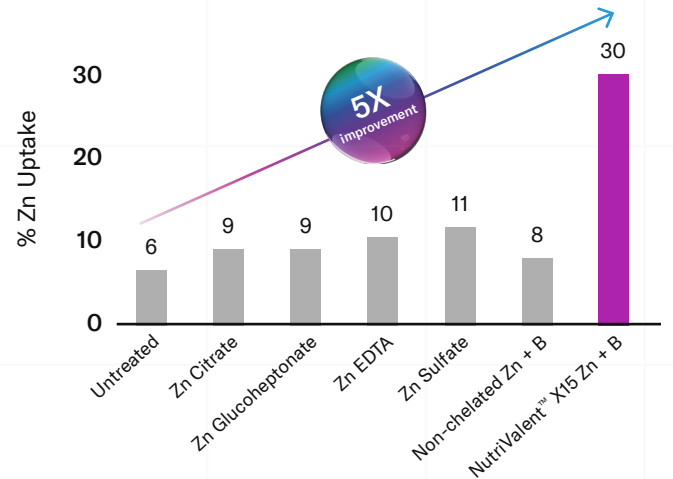
NutriValent™ X15 Complexed with Zn + B **Increased Zn Uptake by ~5X** in Corn



**Core nutrient**  
**Zinc**  
Supports healthy growth

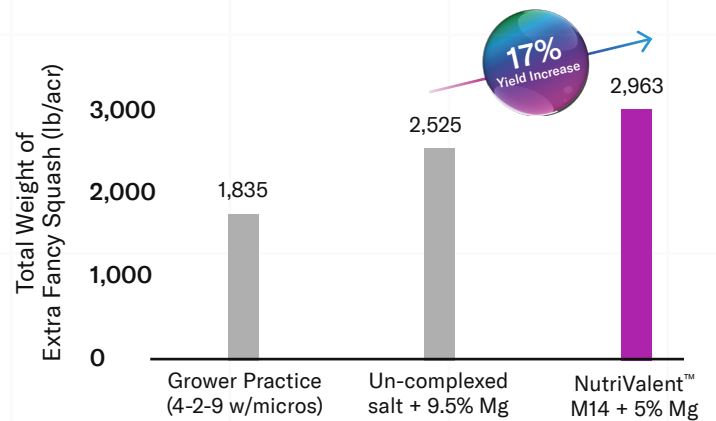
**Boron**  
Increases plant's ability to complex other metals

### Agriculture Solutions



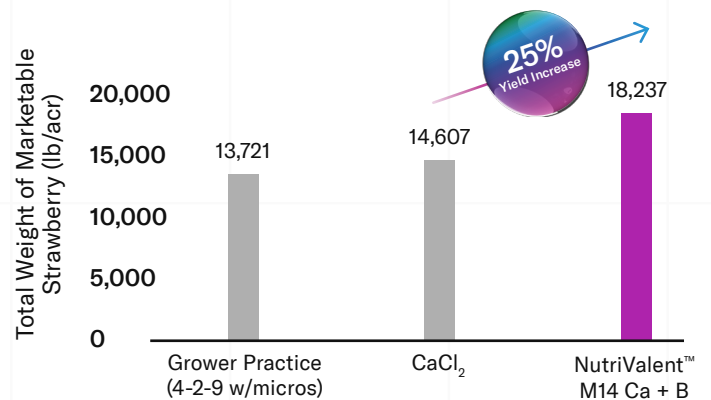
### Test Case 2: Squash Field Trial

NutriValent™ M14 Complexed with Mg **Increased Yield of Highly Marketable Grade of Extra Fancy Squash by 17%**



### Test Case 3: Strawberry Field Trial

NutriValent™ M14 Complexed with Ca + B **Increased Strawberry Yield by 25%**



### About Solugen

Solugen is a bio-based specialty chemicals manufacturer and supplier whose mission is to decarbonize the chemical industry by revolutionizing the way chemicals are made for use across a variety of markets and applications.