

# Louisiana Agricultural Technology and Management Conference

February 8, 2024

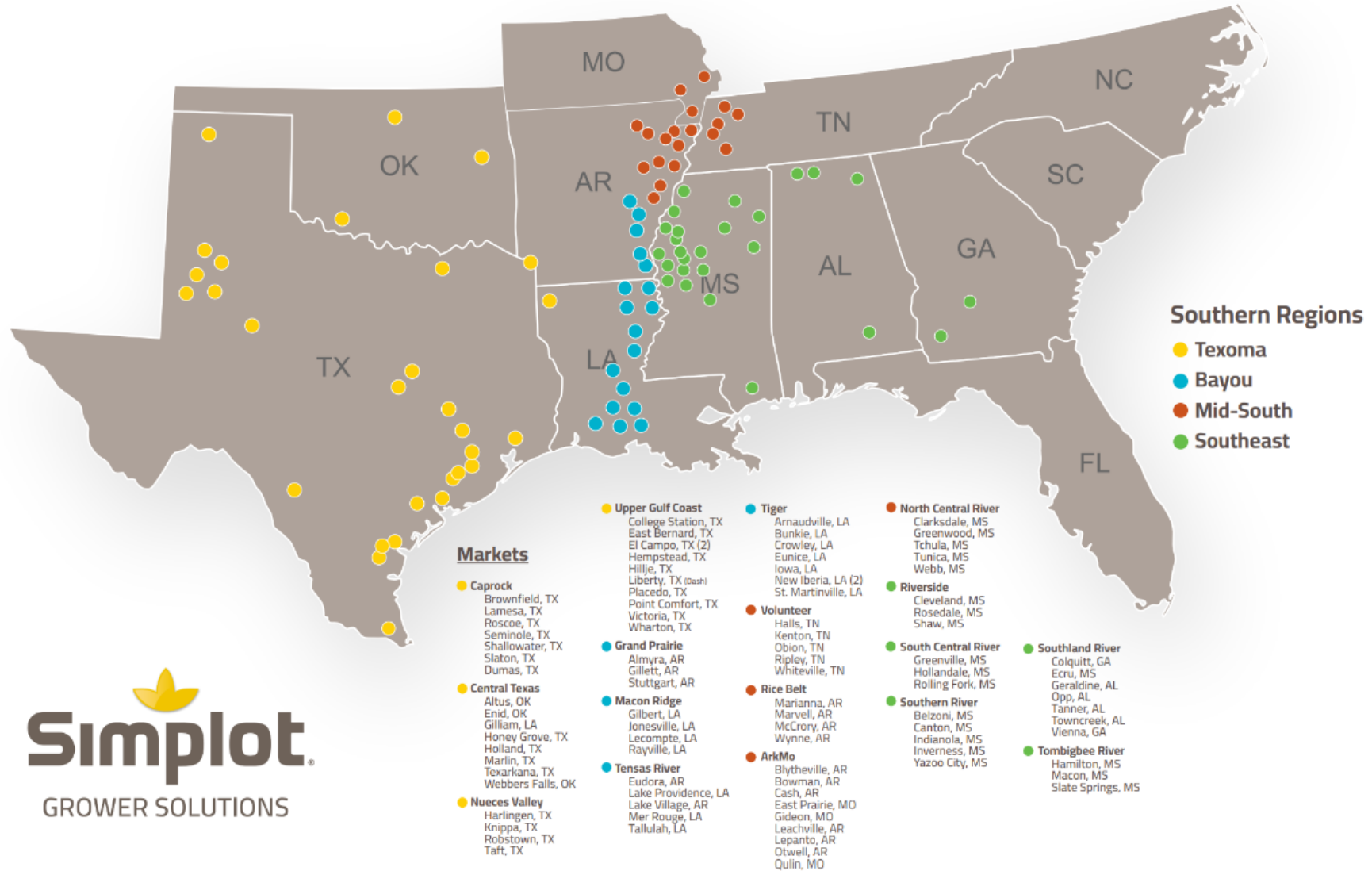
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# Agronomy Sales Enablement





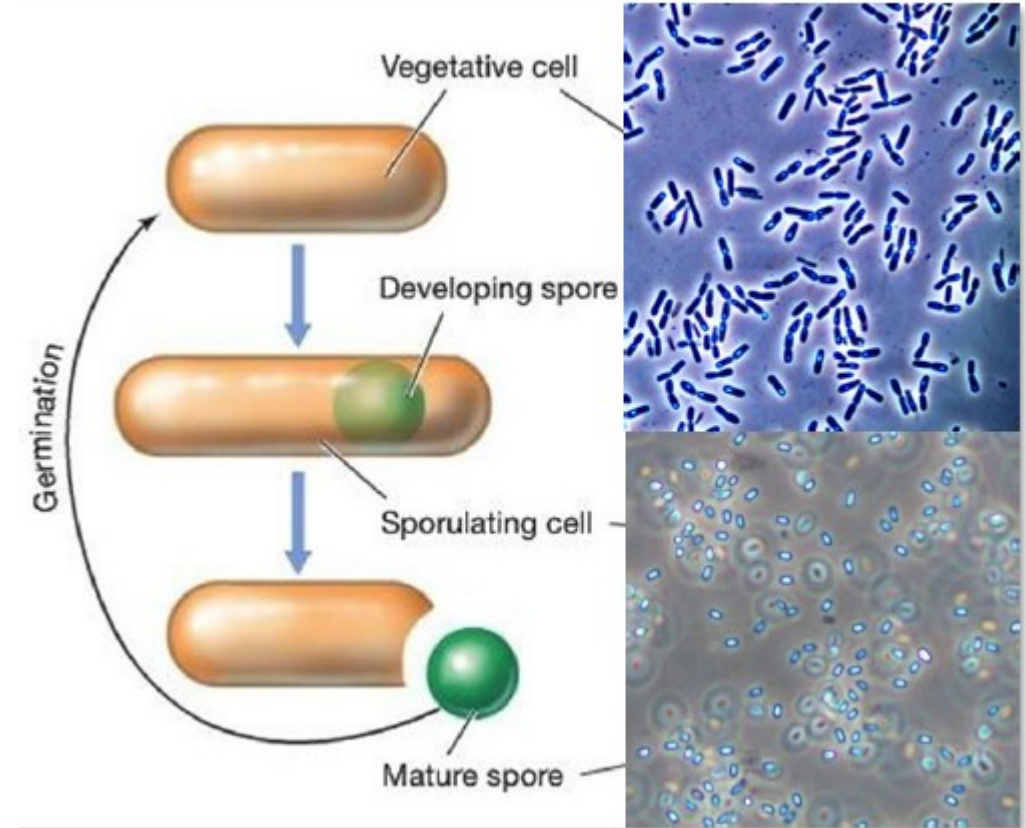
# Revv-UP™



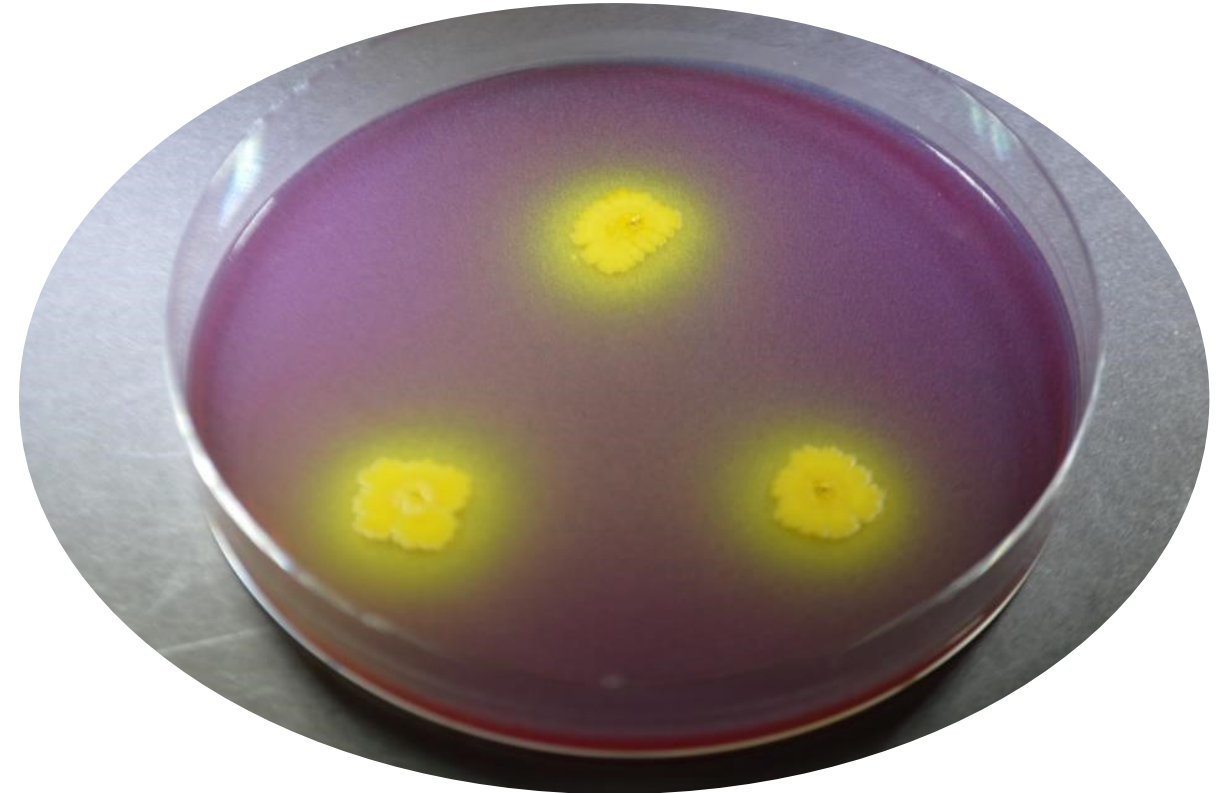


# What is Revv-up – PGPR

- PGPR - the active ingredient, Bacillus based products are beneficial bacteria known as plant growth promoting rhizobacteria (PGPR).
- Mechanisms of Action in Bacilli-PGPR:
  - Direct mechanisms: are those in which rhizobacteria increase the plant growth by producing plant growth regulators or solubilizing minerals.
  - Indirect mechanisms: relate to plant growth promotion as a result of decreasing deleterious effects of plant pathogens (Cattelan et al., 1999).
- Spore form gram-positive bacteria
  - Enables bacteria to survive under harsh conditions
  - Promotes great shelf life

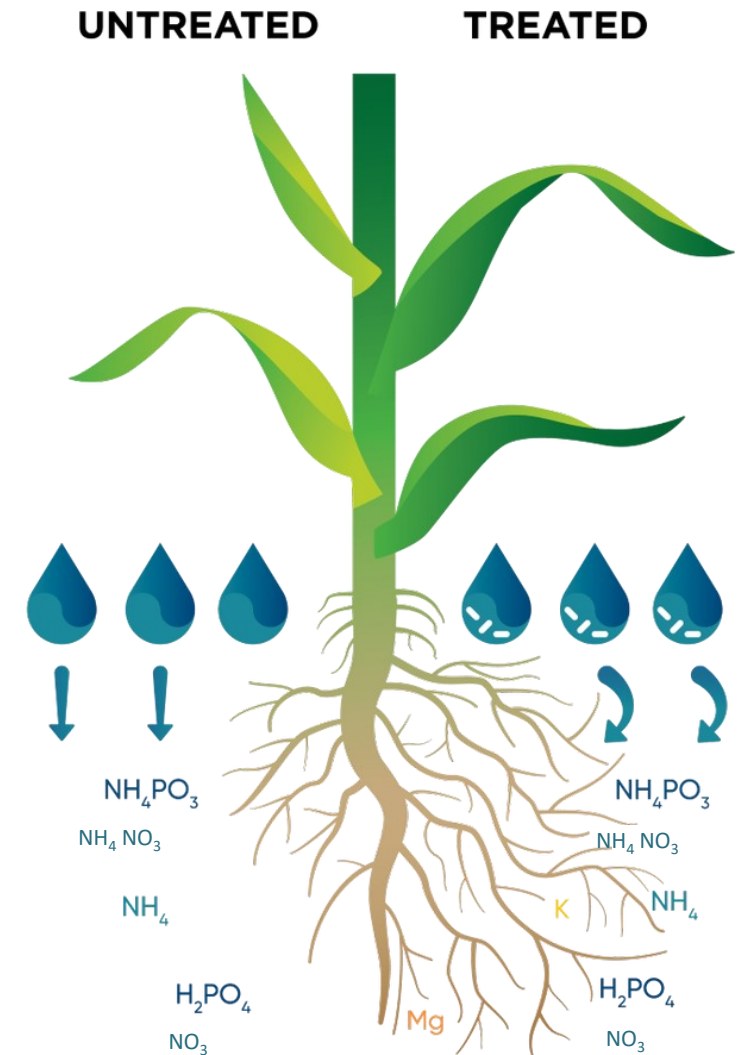


- Increases Phosphorus availability
  - Solubilizes P via organic acid production
  - Color change reaction shows P solubilization in agar (right photo)
- Enhances early season plant vigor
- Can improve production efficiencies



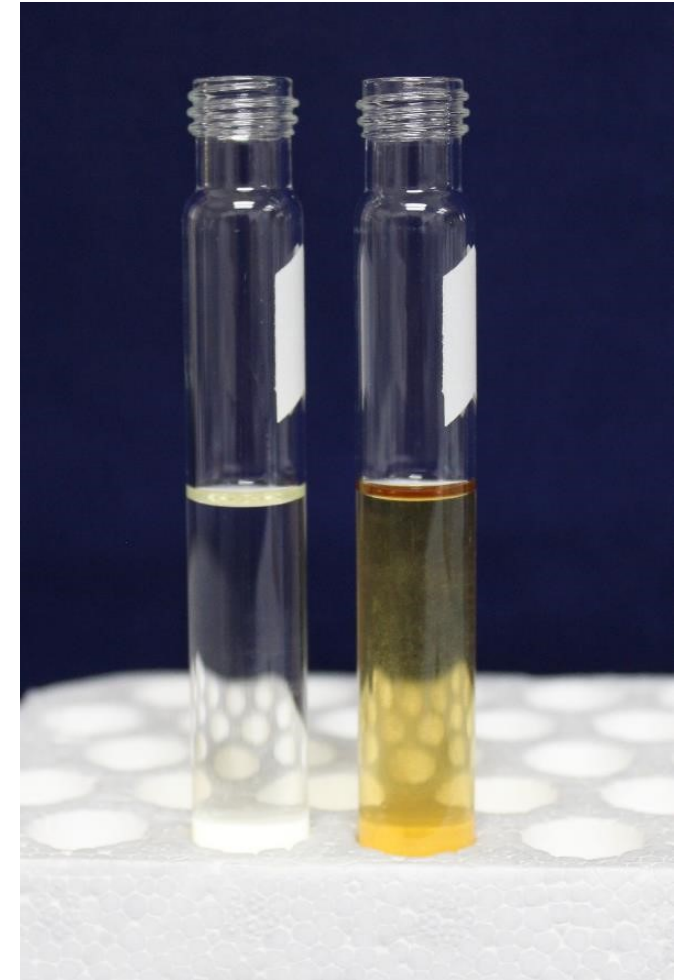
*The agar medium utilized is a modification of Pikovskaya medium consisted of 10 g glucose, 5 g tribasic phosphate ( $\text{Ca}_5 \text{HO}_{13}\text{P}_3$ ), 0.5 g  $(\text{NH}_4)_2 \text{SO}_4$ , 0.2 g KCl, 0.1 g  $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ , trace of  $\text{MnSO}_4$  and  $\text{FeSO}_4$ , 0.5 g yeast extract, and 15 g agar, in 1,000 ml distilled water. Bacterial culture is streaked on the surface of replicated agar plates. The presence of clearing zone around bacterial colonies after overnight incubation was used as indicator for positive P-solubilization.*

- Two bioactives as the AI
  - *Bacillus tequilensis* ( $5 \times 10^7$  cfu/ml)
  - *Bacillus velezensis* ( $5 \times 10^7$  cfu/ml)
  - produce organic acids and enzymes that transform insoluble P to soluble forms that are plant accessible.
  - Increase in bioavailable phosphorus can provide expanded root volume and improve nutrient uptake.



- Shelf-Life Viability
  - 24-month normal storage in Jug
  - 18 month viable in UAN
  - 12 month viable in Volterra

Sample ID	Concentration of Spore Forming Bacteria (Spores/ml)			
	Initial	6 months	12 months	18 months
UAN 32%+ Revv-Up 1%	2.50E+06	2.50E+06	1.80E+06	1.40E+06
UAN 32%+ Revv-Up 0.5%	1.40E+06	1.30E+06	1.20E+06	1.40E+06





# Revv-UP™



**INNIVID BIOSCIENCE  
PLANT HEALTH TECHNOLOGIES**

**Guaranteed Analysis**

ACTIVE INGREDIENTS	<1%
Bacillus tequilensis	5x10 <sup>7</sup> cfu/mL
Bacillus velezensis	5x10 <sup>7</sup> cfu/mL
TOTAL OTHER INGREDIENTS	
Water based Culture Medium	99%

F3013

**CAUTION**  
KEEP OUT OF REACH OF CHILDREN

**HAZARD STATEMENTS**

Moderately irritating to eyes.

**PRECAUTIONARY STATEMENTS**

If medical advice is needed, have product container or label on hand.  
Keep out of reach of children.  
Read label before use

**PREVENTION:**

Wash hands, face, and other affected areas thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Take off contaminated clothing and wash before reuse.

**RESPONSE:**

Call a POISON CENTER or doctor/physician if you feel unwell.

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**IF ON SKIN:** Wash with plenty of water. If skin irritation occurs get medical advice/attention.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

In case of emergency call CHEMTREC 1-800-424-9300

**NET CONTENTS:** 2.5 Gal (9.46 L)  
**NET WEIGHT:** 24.83 lb (11.26 kg)  
**DENSITY:** 9.93 lb/gal @ 68 °F  
**LOT #:** \_\_\_\_\_  
**Expiration Date:** \_\_\_\_\_

**INNIVID BIOSCIENCE**  
PLANT HEALTH TECHNOLOGIES  
P.O. Box 9296, Boise, ID 83707  
855-466-8428

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# Revv-UP™ G

PEEL BACK BOOK HERE ▲



**INNIVID BIOSCIENCE  
PLANT HEALTH TECHNOLOGIES**

**CONTAINS NON-PLANT FOOD INGREDIENT(S):**

**ACTIVE INGREDIENTS:**

**1% Microbial ingredients:**

Bacillus tequilensis	5 x 10 <sup>7</sup> cfu/mL
Bacillus velezensis	5 x 10 <sup>7</sup> cfu/mL

**INACTIVE INGREDIENTS:**

99% Oil based culture medium

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

**HAZARD STATEMENTS**

Moderately irritating to eyes.

**PRECAUTIONARY STATEMENTS**

If medical advice is needed, have product container or label on hand.  
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**Response:**

Call a POISON CENTER or doctor/physician if you feel unwell.

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing.

**IF ON SKIN:** Wash with plenty of water. If skin irritation occurs get medical advice/attention.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**IF SWALLOWED:** Drink plenty of water. Contact a physician.

In case of emergency call CHEMTREC 1-800-424-9300



**NET CONTENTS:** 2.5 Gal (9.46 L)  
**NET WEIGHT:** 19.8 lb (8.98 kg)  
**DENSITY:** 7.92 lb/gal @ 68°F

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PLANT HEALTH TECHNOLOGIES  
P.O. Box 9296, Boise, ID 83707  
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# Questions

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Bayou Region

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