



## A Microbial Biostimulant for Regenerative Soil Health

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### USER INFORMATION GUIDE

#### What is Resilience?

Resilience is potent microbial biostimulant engineered to detoxify chemical residues, restore soil productivity, increase microbial diversity, and improve plant health and nutritional value. It delivers a proprietary blend of synergistic beneficial microbes along with organic stimulants that rebuild healthy soil function, enhance nutrient cycling, and improve soil resilience against chemical and environmental stressors.

#### Key Benefits

- ✔ Detoxifies glyphosate, atrazine, and other pesticide residues
- ✔ Enhances phosphorus, potassium, and micronutrient availability
- ✔ Promotes root growth and plant nutrient uptake
- ✔ Restores microbial diversity and soil biological function
- ✔ Accelerates composting and residue decomposition
- ✔ Supports regenerative, organic, and transitional systems

#### Core Ingredients

Resilience delivers a powerful dual-action system combining our proprietary MicroShield™-18 high potency matrix of beneficial microbes, with NutriCarrier™, a tailored complex of organic activators and plant-supporting compounds. These two synergistic platforms form the core of the product's performance. MicroShield-18 delivers a broad-spectrum blend of biologically active strains selected for their ability to improve nutrient cycling, stimulate soil vitality, and restore ecological balance. NutriCarrier provides complementary and targeted nutritional support—organic catalysts, carbon sources, and natural growth enhancers—that feed microbial communities and enhance plant vigor

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under diverse field conditions. A potent CFU count of 1.5 trillion ( $1 \times 10^{12}$ ) per 100 grams of powdered product, a minimum of 150 billion ( $1.5 \times 10^{11}$ ) CFU's per acre, ensures that Resilience continues to perform under even the most rigorous conditions.

## Uses

Resilience is suitable for use in a wide range of settings, including large scale agriculture, conventional row crops, forage, fruits, nuts, vegetables, hemp, and turf.

## Application Methods

Resilience is adaptable to most application methods, including as a soil drench (row crops, gardens, greenhouses), foliar spray (early morning or evening for best absorption), root dip, and soilless or hydroponic systems. The soluble powdered formulation improves ease of handling and mixing.

## General Application Rates

### Soil Drench

| Product Dose  | Water /Acre (Minimum) | Frequency                 | Coverage Notes                                    |
|---------------|-----------------------|---------------------------|---------------------------------------------------|
| 10 Grams/acre | 8–12 Gallons          | Pre-planting/Post Harvest | Light dose for maintenance or early growth stages |
| 15 Grams/acre | 12- 15 Gallons        | Pre-planting/Post Harvest | Standard field dose                               |
| 20 Grams/acre | 15 - 22 Gallons       | Pre-planting/Post Harvest | Intensive dose for stressed or degraded soils     |

### Foliar Spray

| Product Dose                 | Water/Acre (Minimum) | Frequency     | Timing                 | Notes                                          |
|------------------------------|----------------------|---------------|------------------------|------------------------------------------------|
| 10 grams (~0.4 oz) each acre | 10 Gallons           | Every 14 days | Morning/Late Afternoon | Spray evenly in cool conditions; avoid runoff. |

### Fertigation

| Product Dose                 | Water (Minimum) | Frequency        | Timing              | Notes                                                                                                                              |
|------------------------------|-----------------|------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 10 grams (~0.4 oz) each acre | 10 Gallons      | Every 14-21 Days | Early or late cycle | Inject during non-peak hours. Avoid chlorinated water. Flush lines before and after use. Best with drip or micro-sprinkler systems |



## Optional/Advanced Application Types

| Application Method             | Dose per Acre                                          | Water Volume                                                     | Notes                                                          |
|--------------------------------|--------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------|
| Soil Pre-Plant Conditioning    | 0.35–0.7 oz (10–20 g) per acre                         | 4–10 gallons per acre                                            | Apply as a soil drench 5–7 days before planting                |
| Root Dip / Transplant Solution | 0.05 oz (1.5 g) per gallon                             | Enough to submerge bare-root plants (e.g., 2–5 gallons per tray) | Mix fresh and dip roots immediately before transplanting.      |
| Hydroponics / Soilless Systems | 0.01–0.02 oz (0.3–0.6 g) per gallon of reservoir water | Based on system size; refresh weekly or with nutrient change     | Add directly to reservoir or inject slowly through dosing pump |

## Instructions for Use

### Mixing:

- ✔ Blend Resilience into clean, chlorine-free water (pH 6–7 ideal).
- ✔ Agitate gently if using spray systems or tanks.
- ✔ Use within 6–12 hours of mixing for best results.

### Timing:

- ✔ Apply during early morning or late afternoon.
- ✔ Avoid high heat, UV exposure, or application before rainfall.

### Storage:

- ✔ Store in a cool, dry place away from direct sunlight.
- ✔ Keep the bag sealed. Shelf life: 12–18 months.
- ✔ Do not expose mixed product to direct sunlight or extreme temperatures.
- ✔ Do not store mixed solution overnight.
- ✔ Avoid application just before rainfall or irrigation that may cause leaching.
- ✔ Always test compatibility before mixing with other liquid fertilizers or biological products.

By following these best practices, users can fully harness the synergistic effects of Resilience to regenerate soils, support healthy crops, and build long-term agricultural resilience.

## Product Compatibility

- ✔ Safe for organic systems
- ✔ Tank-mix compatible with compost teas and molasses
- ✔ Avoid chlorinated water or synthetic biocides during application

## Safety Notes

**Non-toxic and safe when used as directed.** Resilience is composed of naturally occurring microbial and organic components that are generally recognized as safe for use in agricultural and horticultural settings.

**Use personal protective equipment (PPE)** such as gloves and a dust mask when handling the dry product, especially in enclosed or poorly ventilated areas, to avoid respiratory or skin irritation due to dust.



**Avoid contact with eyes and open wounds.** In case of contact, rinse thoroughly with clean water. If irritation persists, seek medical advice.

**Keep out of reach of children and pets.** While non-hazardous, the concentrated microbial content should not be ingested or inhaled unnecessarily.

**For external use only. Do not ingest.** This product is not intended for human or animal consumption.

**Wash hands thoroughly** after handling the product or application equipment.

**Store in original packaging** in a cool, dry location away from direct sunlight, moisture, or volatile chemicals.

**Dispose of unused or expired product** in accordance with local agricultural or organic waste guidelines.

## Frequently Asked Questions (FAQs)

**Q: Is Resilience safe for all crops?\***

A: Yes! Resilience is broad-spectrum and safe for fruits, vegetables, grains, ornamentals, and more.

**Q: Can I use it indoors or in hydroponics?\***

A: Yes, Resilience supports soilless systems; apply at lower rates and monitor biofilm or buildup.

**Q: Does it have an odor?\***

A: Slight natural fermentation scent due to microbial activity, but not offensive or harmful.

**Q: Can I apply it with fertilizers?\***

A: Absolutely. Resilience complements both organic and low-salt chemical fertilizers.

**Q: Can I combine Resilience with fertilizers or other biologicals?**

A: Yes. Resilience is compatible with most organic and low-salt fertilizers, as well as compost teas and microbial blends. Always jar-test or apply separately when combining with unknown inputs.

**Q: Will Resilience clog my sprayer or drip line?**

A: No, when properly mixed. Use clean, dechlorinated water and fine mesh filters ( $\geq 200$  micron). Always agitate gently and flush lines after application.

**Q: Is Resilience safe for organic farming?**

A: Yes. Resilience contains naturally derived microbes and carriers and is suitable for use in organic systems. Please check for certification compliance in your region.

**Q: What if I apply too much?**

A: Over-application may temporarily cause microbial competition or waste of product, but it is not harmful to plants or soil. Stick to recommended rates for optimal results.

**Does Resilience require refrigeration?**

A: No. Store in a cool, dry place out of sunlight. Avoid exposure to heat, moisture, or volatile chemicals to preserve microbial viability.

**Can I apply Resilience during rain or irrigation?**

A: Avoid applying just before heavy rainfall or deep irrigation, as it may wash microbes below the active root zone. Apply during stable weather or time irrigation carefully.

## Contact & Support

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