



Sprayers

Product Usage Guide

At AEA, we think differently about agriculture.

1. **We believe in empowering life instead of suppressing it.**
2. **We believe a healthy plant will be more resistant to insects and disease. To start thinking about agriculture differently, we need to use our equipment differently as well.**

AEA's regenerative products are unique formulations of naturally-derived minerals.

If not properly handled, these natural products may:

- ⊗ **Damage pumps and equipment**
- ⊗ **Clog sprayer nozzles**
- ⊗ **Be hard to clean**

Mixing Instructions

Read these instructions to avoid any problems when handling our products!

Make sure you agitate, filter, and clean.

1. Store between 40-80°F and out of direct sunlight.

2. Venting

- a. Containers may expand during shipping.
- b. Upon receipt, slowly unscrew lids to release pressure.
- c. Rinse the caps so they can self-vent.

NOTE: A biofilm often forms on the product's surface. This is normal. Skim it off before agitating. Skimming isn't practical on totes. To remove biofilm, filter with 1/8" mesh after agitating.

3. IMPORTANT: Agitate thoroughly before each use to mix material from the bottom

- a. **There are many ways** to agitate totes and barrels: Tote mixer, air wand (pneumatic mixer) (under 40 psi), paint-mixer electric drill attachment, transfer pump recirculation, or trolling motor.

b. We recommend to use an air wand in the corners, then a tote/drill mixer.

c. Use caution when agitating certain products:

- i. **Do not** use an air wand with Accelerate™, SeaShield™, or MacroPak™. If using a mechanical mixer, do so with caution. These products can sometimes foam and expand
- ii. Rebound Manganese™, HoloCal™ and HoloPhos™ may expand while mixing with air wand or drill mixer. Keep an eye on them.
- iii. Rejuvenate™ swells rapidly by ~25% when agitated. Remove 25% from its container to create room for expansion. Use equal parts from original and new container. Recombine for storage.

d. Avoid pumping undiluted products. They're abrasive and may damage pumps.

- i. Get products out of totes by raising tote and using gravity.

- 4. IMPORTANT: Mix and Filter before** products go into the application tank.
- Use a mix/nurse tank equipped with recirculation (if necessary, mix in your spray tank).
 - Fill nurse tank with water before adding in products.
 - Dilute with water to achieve a desired consistency.**
 - Shake/agitate/mix products prior to pouring.
 - Pour products into nurse tank through a 15 mesh screen. Make sure the tank is recirculating.
 - If using multiple products, add them one at a time while recirculating.
 - Run nurse tank for 10 to 15 minutes until product is suspended.
 - Once mixed well, clean out filter. Then pump into sprayer through a 30 mesh filter. AEA products should never be put through a screen finer than 40 mesh.

5. Dilute based on context (water to product):

- Airplanes and drone:** 1:1 minimum dilution
 - We recommend rotary atomizing nozzles.
- Ground Rigs:** 8:1 minimum dilution
 - Use 15 gallons per acre minimum
- On fruit trees:** 25:1 minimum dilution
 - Use minimum of 100 gallons per acre
 - 200 gallons per acre is deal when fruit is on tree to reduce the chances of marking

6. If pesticides are in your tank mix:

- Pesticides may burn leaves or cause problems when mixed with our products.
- Ensure the pH and EC lie within the range given on the pesticide label.
- Always do a jar/spray test** when using non-AEA materials.

- 7. Drain and clean agitation** equipment after each use and before it goes into other containers. This will prevent cross-contamination and clogs in your spray system.

Spraying Instructions

Ensure the product is agitated, filtered, and suspended in mixture before using.

1. Remove tip filters.

- Clogs in multiple spots are a risk if the spray rig has more than one filter.

- Larger droplet size is preferred. Use a #4 or #5 tip.
- We recommend high-volume, low-pressure nozzles like Floodjet™ with screens removed; or non-air inducted, even flat spray tips like TeeJet®.

2. Main Screen Filter Use a 35 mesh filter.

- If the screen clogs and disrupts product flow, go down to 30 mesh.
- Do not use a filter finer than 40 mesh.

3. When using inoculants, keep pressure under 40 psi to avoid damaging the microbes.

4. Keep the tank agitated to maintain suspension during application.

- When a spray mix is not agitated, the product may settle and clog equipment.

b. For nurse tanks:

- Transfer pumps should have the filter on the outlet side of the pump.
- The pumps can be used to recirculate mix, then transfer it into sprayer.

c. For ground rigs:

- Main filter (before pump): 30-35 mesh
- Remove nozzle filters
- Agitate if possible

d. For airblast sprayers, use larger mesh sizes to avoid clogging.

- Main Filter (before pump): 25-30 mesh protects pump from large particles.
- Suction Filter: 30-35 mesh allows thick materials to flow without clogs.
- Remove nozzle filters.

e. Most saddle tanks don't have a way to agitate while spraying.

- You either need to spray promptly or build a custom agitator on your tank.

5. Thoroughly rinse and flush equipment after application.

- Don't leave the mix in a tank overnight: it will settle and cause problems.



Questions?

Contact your account manager, agronomist, or our Customer Care Team:

✉ info@advancingecoag.com

☎ 800-495-6603



Product Combination Instructions

Mineral Nutrients

1. Fill the tank halfway with water and start agitation.
2. Add SeaShield™ first, if part of the application.
3. Continue agitating while adding the remaining liquid AEA products, then the rest of the water.
4. Save HoloCal™, Holo-K™, and HoloPhos™ as the last liquid ingredients.
 - a. Do not combine other calcium and phosphorus products in an AEA tank mix without prior jar testing or other assurance of safety and efficacy.

Inoculants

1. Add inoculants after all nutritional materials.
2. Make a slurry with Spectrum™ or other Tainio™ powders by mixing with water in a separate small container.
3. Agitate, allow to hydrate for a minimum of 15 minutes, then add to the tank through a filter.
4. BioCoat Gold™ should NEVER be added to a liquid solution.



Advancing Eco Agriculture