



## Directions for Use

### Bio-Soil® Liquid Concentrate (foliar or soil use)

**Suggested Uses:** For use with a wide array of crops including bedding plants, fruits, row crops, vegetables, turf, hydroponic and ornamental crops.

**Mixing instructions:** Bio-Soil Liquid concentrate must be diluted with water. Partially fill the spray tank with clean water and begin agitation. Add the specific amount of Bio-Soil to the tank. Finish filling the tank to the necessary volume to obtain proper concentration. Continue to agitate during mixing to assure a uniform application. Do not allow the spray to stand overnight or for prolonged periods of time. Maintain suspension pH between 4.5-8.5. Bio-Soil® Concentrate can be used alone or combined with a plant health and nutritional program.

Apply Bio-Soil® Liquid Concentrate through low pressure watering nozzles such as fan nozzles, or other drench watering systems. Constant agitation is required to maintain Bio-Soil® Liquid Concentrate in suspension. Bio-Soil® Liquid Concentrate can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides, and biological control products registered for use on greenhouse/ornamental plants. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in the mixtures. Consult the tank mix compatibility chart below or the company for more information.

**Soil/Foliar Applications:** Use as a soil or foliar spray application 2-6 oz. per acre. Apply using Ground, Aerial or Chemigation application.

- By drip or overhead irrigation system: Use 2-6 oz. per acre prior to or immediately after sowing or transplanting; repeat every 3-4 weeks during growing season. For best results, apply when soil temp is above 45°F.
- In-furrow application at the time of planting: Mix 2-6 oz. in 10-15 gallons of water per acre. Apply at planting directly over or behind the seed prior to covering.
- As a field soil drench prior to or after crop establishment: Mix 0.5-1.0 oz. per 100 gallons of water. Thoroughly drench the solution into the root zone.



### Hydroponic System Applications:

- Add [Bio-Soil® Liquid Concentrate](#) at a rate of 0.6-1.0 oz per 100 gallons of nutrient tank water when transplants are first placed in the trays. Run the solution through the system for thorough mixing.
- Repeat applications every time fresh water is added to the system or once every 7-20 days using 0.1-0.2 oz. per 100 gallons of nutrient tank water.
- If transplant roots are already dipped in the solution prior to placement in the trays, wait 7-20 days before making the first application of Bio-Soil Liquid Concentrate in the nutrient tank.

**Seed Treatment:** Inoculate seed prior to planting using a rate of 0.3-0.5 oz. per 1,000 lbs. of seed. Make a suspension of [Bio-Soil® Liquid Concentrate](#) in cool, clear water. Suspension needs to be used on the seed within 24 hours of mixture.

**Cutting and Root Applications:** Pour 0.6-1.0 oz. of [Bio-Soil® Liquid Concentrate](#) per 100 gallons of water. Dip basal end of cuttings or bare roots into the solution for 10-20 seconds immediately before planting.

**Greenhouse Drench:** Suspend 1.0 – 3.0 ounces of [Bio-Soil® Liquid Concentrate](#) in 100 gallons of water with agitation and apply as a drench to greenhouse planting mixes. For seeding flats or shallow (up to 4-inch depth) beds or pots, apply at a rate of 50 gallons per 800 square feet. For deeper beds or pots, apply at a rate of 100 gallons per 800 square feet.

[Bio-Soil® Liquid Concentrate](#) formulation is as follows.

#### Microbial Inoculants – 1.0 E+10 cfu/ml

*Bacillus licheniformis* – 2.0 E+9 cfu/ml  
*Bacillus methylotrophicus* – 4.0 E+9 cfu/ml  
*Bacillus subtilis* – 4.0 E+9 cfu/ml

**Storage:** Best stored in a refrigerator or a cool, dry area. Keep container tightly closed when not in use. Avoid prolonged exposure to direct sunlight. [Bio-Soil Liquid Concentrate](#) is a live organism- do not mix with Jet-Ag (PAA) for more than one hour in a tank mix. For best case, test materials (pesticides, fertilizers, adjuvants, and surfactants) with [Bio-Soil Liquid Concentrate](#) to see if compatible.