



EARTHGEN215, LLC

July 2024 Newsletter!

Tips To Turn the Biological Products EarthGen215 Represents into Versatile Tools!!

From time to time, situations present opportunities to explore functional uses of these Biological Products in addition to applying them for crop production purposes. The Bio-Stim — Options to Consider: **Rescue spray to counter chemicals inadvertently drifted or over-dosed**. We have seen excellent results when there is some life remaining in plants exposed to toxic doses of herbicides or other unintended chemical barrages. A rescue mixture of the Bio-Stim that is diluted with enough **chlorine – free water** to apply about 10 gal/ac total produces restorative results. Contact Tom for application protocols. The sooner the Bio-Stim rescue spray is made after an inadvertent chemical spray-drift or over-dose, the better the chances of the rescue succeeding. Enzymes in the Bio -Stim trigger auxin (growth) hormones that are naturally in living parts of the damaged plants. When triggered, these growth hormones signal the plants to put on new growth, thereby making it more likely for the damaged plants to outgrow harm from the chemical drifts or sprays. Including small amounts of Harvest E in some rescue sprays is beneficial as well.

Mitigate fairy-ring and other fungal-type diseases in grasses. Soil that for any number of reasons may be oxygen deficient is more susceptible to various root-borne diseases, and its crop becomes more vulnerable to destruction by aphids, mites, and other destructive insects, as well as destruction by a variety of parasitic pests in the soil. **Any situation resulting from oxygen deficiency in soil usually benefits from applying the Bio-Stim at rates higher than customary until the soil's oxygen deficit is corrected.** An example of such situations includes seriously compacted soil that restricts the uptake of moisture and soil-essential nutrients by root hairs of the growing hay or crop. Another example is fairy ring disease which can develop in any, and all varieties of grass. This disease is most apt to develop where there is excess moisture combined with poorly draining soil. The appearance of fairy rings in grassy areas is due to growth of mushrooms that are in the Basidiomycetes family. These mushrooms grow in circular or semi-circular patterns. Mushrooms are fungi. The fairy ring fungi do not kill the grass-host directly, rather the mushrooms decompose the organic matter in the soil. As the organic matter is broken down, nitrogen is released resulting in dark green, thick grass that grows more rapidly than surrounding grass, in the shape of rings and semi-rings. Some strains of fairy ring fungi cause the soil to not absorb water as readily as it did prior to infestation. The appearance of brown, dead areas where fairy rings have infested can be due to the mushrooms dominating the brown-looking areas, or the grass dying back because its soil cannot absorb adequate water, or both.



Applying the Bio-Stim as recommended infuses oxygen into soil. It also facilitates soil becoming loamier, which allows excess water to drain out of the soil. **Soil that drains in a healthy manner and that contains adequate oxygen creates conditions that make it difficult for the mushroom fairy-ring fungi to thrive and spread.** When fungi are so managed, it cannot promote fairy rings.

Seed germination and transplanting starter plants. A standard application protocol for the products EarthGen215 represents is to apply them on-seed at planting. This method of application in a field includes Bio-Stim, Harvest E, and often some Fulvic E. Some producers soak their larger seeds (i.e., soybeans, and other comparably large seeds) in a mild solution of **chlorine-free water** and Harvest E, and Bio-Stim. Taking off from those protocols and ideas: Garden produce started in greenhouses germinates with incredible

vigor when the seeds are lightly misted with the product that EarthGen215 represents (Bio-Stim diluted in **chlorine-free water**) shortly after being planted. Seedlings mature with more strength and production potential when misted with the same diluted product once each week, or every-other-week. A little extra diluted Bio-Stim applied on soil into which young plants are transplanted helps the roots acclimate to their new surroundings with little to no shock reactions.

Odor mitigation. Given its function to infuse oxygen into any environment where it is applied, about 2 tablespoons of Bio-Stim in **one-quart of chlorine-free water** mitigates rank, unwanted odors from indoor and outdoor areas. Odors that can be reduced or eliminated include those from animals, smoke, mold, or other sources. The Bio-Stim/chlorine-free water mixture needs to be misted lightly into the smelly area. After about 30 to 60 minutes, the unpleasant odor is/odors are tolerable or gone. Please contact Tom for more details.

Another 2 products EarthGen215 represents are a Fulvic product and a plant Energy product—Options to Consider: **Burn-Down of Cover Crops.** Customers using these Biological Products are working with EarthGen215 to strengthen protocols for using the Fulvic, instead of any chemical herbicide, to “burn-down” cover crops where primary crops have been or will be planted for the season. Timing of the applications for any such use is pivotal to the application’s efficacy. Please contact Tom for details. Benefits of applying the Fulvic in lieu of a herbicide include: (1) avoiding chemicals’ damage to soil structure, and its beneficial organisms, as well as to non-target plants, and non-target, beneficial insects; (2) a mineral package is delivered to the soil by applying Fulvic (calcium, iron, sulfur, manganese, zinc); and (3) applicators’ safety—**no personal protective equipment is necessary when applying any of the products.**

Counter Attacks from Destructive Insects. The Biological Products EarthGen215 represents can be used to deter infestations of aphids, mites, and other such destructive insects, in lieu of applying insecticides. When using these products, the threshold of unwanted insects populating target-crops is fewer per plant than that for deciding whether to apply an insecticide. As mentioned before, foliar applications of the Bio-Stim supply enzymes that trigger work by auxin growth hormones, and foliar applications of the Fulvic and Energy supply minerals and carbon. Insect-deterrence is most effective where these products are also being applied as recommended to improve soil structure. Full-program applications of the products EarthGen215 represents are designed to strengthen crops’ reactions to stress-causing events related to weather, thereby making destructive insect infestations less likely. To avoid interference with essential pollination processes, we generally recommend not making any spray application during pollination periods of development.



Please contact Tom, Jeff or Skeeter to design application recommendations for the fall months of 2024

We look forward to speaking with you, and remember We Ship Nationally and Internationally!!

Tom

Tom Golden
Managing Member
EarthGen215, LLC
www.EarthGen215.com
719-465-6234

