





Organically-Approved Input Information Sheet

EcoTea[™] Foliar HDI

Analysis: Eco-Tea[™] is a CFIA-approved bio-stimulant/amendment and is approved as an organic input by Pro-Cert



Product Notes:

A) Eco-Tea™ Foliar HDI "ARRAKIS BREW" option ("sprayer-ready") - MIN 500 GALLONS

- Eco-Tea[™] foliar "spray-ready" is a 2-part system:
 - 1. Liquid HDI Inoculum earthworm castings and plant-based composts brewed locally into a concentrated liquid with added microbial foods – humic, fulvic, and long-chain amino acids, kelp extract, simple and complex carbohydrates, and enzymes designed to feed the specific bacteria, fungi, and protozoa in the tea.
 - 2. Foliar Catalyst added to tank just prior to application, to activate the specific disease suppressive groups of microbes in EcoTeaTM. (Foliar catalyst also contains natural wetting agents and surfactants.) (Catalyst is customized to different end uses (e.g. foliar vs soil vs seed.))
- EcoTea™ Foliar concentrate is "brewed" locally in Overton's ARRAKIS bioreactor and shipped to the producer in 2 parts: Part 1 is a blended inoculum with microbial foods, aerated 24 hours prior to delivery. Part 2 is the catalyst. The producer adds the catalyst immediately, just prior to application, along with dechlorinated water, and tank mixes well.
- Greenhouse, high value agricultural crops, horticultural and viticultural operations with their own aerating equipment can also purchase the 3-part system and brew their own foliar product for regular applications. (Option B, below) (For a program that aids in disease mngt for high value crops, spray every 7-10 days.)
- EcoTeaTM Foliar is diluted with 3 parts dechlorinated water prior to application (e.g. 250 gal of concentrate + 750 gal dechlorinated water). It can be further diluted if more water needs to go out, specific to farm/crop needs/coverage, but the concentrated rate should always stay the same.
- EcoTeaTM Foliar is an active, aerobic product. <u>It should be continually aerated after delivery and used</u> within 24-48 hours of delivery. Provided it is stored out of direct sunlight and continually aerated, the product is good for up to 5 days. Once no longer aerating and the catalyst is added (tank mix) it must be used within 6-8 hours. Do not add catalyst until ready for application.
- Spray ONLY in the evening or on an overcast day.

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B) Eco-Tea™ Foliar HDI "Self Brew" option:

Eco-Tea[™] Foliar HDI "Self Brew" is a 3-part system: HDI + MF + Aerate + Foliar Catalyst

Eco-Tea[™] Foliar HDI "Self Brew" Instructions: (Aerate in tank for 24 hours)

- 1. Place HDI into a 200 gallon (750 L) or larger tank/tote/mixing unit with aeration hookup. Or use delivery tote as mixing unit.
- 2. Add EcoTea™ Microbial Foods at a rate of 4 kg for every 50 gallons of EcoTea HDI.
 - 2.1. Place 4 kg of Microbial Foods into a 5 gallon (20L) pail with dechlorinated water and mix well (until product is dissolved), pour 'slurry' into the mixing unit or spray tank, ideally while aerator is running. (Note: Remove all screens in sprayer and use proper nozzle setting, see specs below.)
 - 2.2. Allow 24 hours for the tank solution to aerate, maintaining approximately 80-120 L/min of aeration, (6 mg O2/L) throughout the process.
- 3. Add EcoTea[™] Foliar Catalyst at a rate of 4 L for every 50 gallons of aerated EcoTea[™]. Add Foliar Catalyst to sprayer, mixing vigorously.
 - (Note: Adding Foliar Catalyst will greatly decrease the shelf life of EcoTea, add it when you are ready to apply!)
- 4. Add dechlorinated water to EcoTea[™] with a minimum dilution of 1:3 (1 part EcoTea HDI mix : 3 parts dechlorinated water). You can dilute much more if need be (coverage etc), as long as the concentrated EcoTea rate, is maintained.
- 5. Apply EcoTea tank solution at a rate of 8-18 gal/Acre (diluted product) to achieve 70% or more coverage. Spray ONLY in the evening or on an overcast day.

Uses:

- EcoTeaTM Foliar is ecologically engineered to reduce and suppress pest and disease pressure, fungal and bacterial pathogen pressure and some insects
- Certain microbes consume pathogens, others produce small amounts of antibiotics in the presence of pathogens
- Beneficial microorganisms in EcoTea[™] Foliar, colonize the leaf surface, decreasing plant stress and outcompeting pathogens for space and resources (competitive exclusion)
- EcoTea[™] Foliar is biologically engineered to provide specific beneficial disease suppressing microbes to the food web/biome.
- EcoTeaTM Foliar is bacteria-focused to colonize leaf surfaces in 20 minutes.

Application Rates and Timing:

- Timing is similar to conventional fungicide applications; Evening is most ideal, early morning or very overcast is okay never spray in full sunlight.
- EcoTeaTM Foliar works best if the beneficial microorganisms are present just before the pathogen has a chance to attack: Spray as a preventative treatment.

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- Cash Crops: apply at 2 gal/ac; a 250 gal tote of concentrate will cover ~125 acres:
 - o Wheat: at heading (T3)
 - o Corn: 6-7 leaf stage and/or at tasseling
 - o Soybean: just before or at flowering
 - o Oats: at heading
 - o Alfalfa & Hay: after first cut
 - o Ginseng: 21 day program, starting early June to Sept
 - o Cranberry/Blueberry/Strawberry: 5 apps, mid-May to mid-Sept
 - o Sunflowers: at flower, (late July/early Aug), could warrant 2 applications
- High Value Crops: apply at 6-10 gal/ac; a 250 gal tote will cover 25-50 ac
 - o Spray every 7-10 days to aid in disease management program, based on weather and disease pressure, from mid-June to early September
 - o All new foliage needs to get covered every 7-14 days

IMPORTANT:

- Apply with coarse nozzles only, *maximum screen size of 300 micron (50 mesh)*
 - o 50 psi or lower
 - o TeeJet Nozzle/Floodjet 0.08 (white) or larger
 - o Boomless Nozzle 0.10 or larger
 - o Greenhouse; conventional track systems, spray emitters, hanging basket emitters, dosatrons, backpack sprayers etc. double screen MF
 - o For berries with foliar applications high pressure (blast sprayers) is not recommended, can also have the option of using catalyst as a biostimulant
- All of these rates are in concentrated tea (pre-dilution)
- DILUTE EcoTea[™] HDI 1:3 or more with DE-CHLORINATED water
- We recommend to keep EcoTea agitating and/or aerating in tank during application
- Use dechlorinated Water ONLY when tank mixing with EcoTea[™]
 - o Chlorine water (municipal) needs to be aerated for 1 hour or sit for 24 hours
 - o Chloraminated water needs to aerated for a minimum of 48 hours

Clean Up:

- Make sure to wash out equipment with clean water, take nozzles off and let flow! Citric acid, acetic acid, or ammonium solutions are best as cleaning agents.
- DO NOT let EcoTea™ sit in liquid kit and/or sprayer after application, clean immediately unless kept aerating.

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- *Once Catalyst is added to mix you have 6-8 hours to use the product.
- *NOTE: We recommend removing inline screens & filters that are finer than 50 mesh/300 microns. Filter end product with secondary 300 micron/50 mesh screening bag if using conventional equipment or drip tape.

Comments:

- EcoTeaTM "Foliar" is a relatively coarse product; some equipment modifications are necessary to maintain the integrity of the microbiology during application (nozzle setting, psi, and taking out screens are vital to maintain integrity)
- Remove all filters from the sprayer as precaution (300 micron/50 mesh)
- Clean the sprayer thoroughly before and after use
- Overton Environmental stocks nozzles and other specialized application accessories and can ship to producers who cannot source parts locally
- EcoTeaTM "Foliar" pricing is dependent on the volume ordered and shipping
- EcoTeaTM products are approved for organic production by Pro-Cert
- EcoTeaTM Foliar is biologically engineered to stimulate or 'wake up' specific functional groups of microorganisms that aid in disease suppressive through the 24 hours aeration process and when the foliar blend of catalyst is added.
- The foliar blend of catalyst contains Yucca (spreading action, 'non-toxic' soap) as a surfactant, but contains no molasses.
- In conventional systems EcoTea™ must have a 5-7 day window between fungicide applications (before and/or after EcoTeaTM use)

Contact Us

Thompsons has staff trained to meet the needs of organic farmers at locations across Ontario. Please contact your nearest branch to learn more!

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