

Arborist, Greenhouse & Landscape Application Guidelines

IMPORTANT GENERAL INFORMATION AND SPECIAL APPLICATION GUIDELINES . . . *Important soil considerations.*

In sandy soils, or where leaching is a critical consideration, utilize the lower recommended rates of water, combined with the higher rates of "Bio-Plex Technical Transplant Concentrate" to minimize and offset inefficient porous soil characteristics. *Important moisture considerations.* (1) In times of high or frequent rainfall or saturated soil conditions, when plant tissues are quite turgid and highly saturated with moisture, you can successfully treat plants under these conditions; however, you must allow an additional 2-4 days (24-96 hrs) after last rainfall before attempting to harvest plants. (2) It is advisable to apply "Bio-Plex Technical Transplant Concentrate" prior to hydrating plants, while the plant is at its highest point of de-hydration and threshold of "thirst" is greatest. You will result in higher levels of "AI" translocating into the plant - quicker. *Higher label rate recommendations are intended to be utilized to offset more extreme, elevated levels of environmental or physical stress. Higher label rate recommendations can also help offset the traditionally more difficult transplant nature of some plant specimens. As a general rule, use lower label rates in lower stress periods, or, for traditionally easier to transplant ornamentals. Note: Method of root-drench can and will vary widely; however, a thorough, deliberate root-saturation is imperative for optimum results. Anything "Summer Dug" in the Cherry, Pear, Crabapple, Ash, family, or "multiple or branched trunk specimens" as in Clump River Birch, or "grafted specimens" - increase label recommended rates to 3.0 - 4.0 fl. oz of "Bio-Plex Technical Transplant Concentrate" per each caliper inch trunk diameter, per 5-10 gallon water per each 1" caliper trunk diameter and complete a foliar and root drench pursuant to label guidelines below. With these specimens, allow a minimum of 72-96 hrs prior to digging or transplanting for these more difficult varieties. Refer specific "Summer-Dig" questions to technical support @ 1-800-441-3573

Summer Digging Deciduous Plants . . . To reduce transplant shock, plant decline, defoliation or potential plant loss - apply "Bio-Plex Technical Transplant Concentrate" to plants 48-96 hrs prior to digging, transporting or transplanting. For superior results under the most extreme adverse conditions, "Bio-Plex Technical Transplant Concentrate" should be applied in two ways, at identical dilutions. *Prepare Tank-Mix @* *1.0 to 3.0 fl.oz. of Bio-Plex Technical Concentrate per each caliper inch trunk diameter, into 5-10 gallon water for each 1" caliper trunk diameter. From that total tank-mix, apply approximately 1/5 to 1/4 total tank-mix as a thorough foliar drench, the remainder apply as a root drench (slow-drip method is preferred, other root-drench methods can prove equally successful).

(Step #1) Foliar Application. Apply tank-mix to foliage until run-off. Question - is foliar application always required? Generally, the foliar application is only 'skipped' when time or equipment limitations do not permit. The foliar application allows for an ideal secondary entry point for the active ingredients of "Bio-Plex" to penetrate and more completely translocate throughout the plants vascular system. Foliar applications allow for larger amounts of "AI" to saturate the plant tissues more rapidly. For optimum "stress reduction" under high stress thresholds, we highly recommend you DO NOT "skip" the foliar application. If foliar application is omitted, please allow an additional 1-2 days for supplemental root adsorption from the root drench procedure. results. CAUTION, Foliar Application Only - Note that Sycamore and some Maples (*at new leaf only*) exhibit some adverse sensitivity (TIP-BURN) to foliar spraying. Reduce foliar rates to 1.0 fl. oz. per caliper inch trunk diameter per 5-10 gallon water, or skip foliar altogether and "root drench only" at standard label recommended rates.

(Step #2) Mandatory Root Drench - After foliar spray, apply remainder of tank-mix at a proportionate rate so as to deliver the appropriate amount (1-3 fl.oz. Bio-Plex "AI" per each 1" caliper trunk diameter) to each ornamental to be treated from tank-mix. Root drenching serves as the "primary" vehicle for the translocation of "Bio-Plex" active ingredients and should be completed in slow-drip format for best

Summer Digging Conifers . . . Apply "Bio-Plex Technical Transplant Concentrate" to plants 24-96 hrs prior to digging or transplanting. For best results harvesting Conifers, "Bio-Plex Technical Transplant Concentrate" can be applied successfully in one of two ways . . .

(Method #1) Tank-Mix 1.0 to 3.0 fl.oz. of "Bio-Plex Technical Transplant Concentrate" per caliper inch trunk diameter, into 5-7 gallon water per each one inch caliper trunk diameter. From that total tank-mix apply approximately 1/5 - 1/4 tank-mix as a thorough foliar drench, the remainder apply as a root drench (slow-drip preferred). **OR**

(Method #2) Tank-mix 7.0 - 10.0 fl.oz. of Bio-Plex Technical Concentrate per 10 gallon water. Apply to plant as a liberal foliar drench to the point of needle saturation and drip. To deliver the remainder of tank-mix material to soil and roots, adjust spraygun pattern to a coarse high volume stream and generously spray conifer at base of plant (where soil and trunk meet) to the point of puddling or pooling. As a general guideline, spray at base of plant approximately 10-25 seconds per each 1" caliper trunk diameter (pause as required to prevent tank-mix from migrating from base of tree) depending on "PSI", etc. Allow 48-96 hours for material to translocate before harvesting.

Follow-up Applications to Summer-Digging or General Ornamental Plant Enhancement to Ornamental Landscape Installations or Transplants, . . .

Re-apply "Bio-Plex Technical Transplant Concentrate" at 15-30 day intervals or sooner if plant symptom and/ or extreme environmental stress requires (Excess Heat, Cold, Drought, etc.). Re-applications can be made as root drench alone at a rate of 2.0-3.0 fl. oz. per cal. in. trunk diameter per 3-7 gallon water per each 1" caliper trunk diameter or gallon size container. Subsequent applications can be effectively spaced at 30-45 day intervals for as long as is required to stabilize plant. For future plant nutritional considerations, use Bio-Plex Organics, liquid **12-4-6 or 5-10-5 Turf - Tree, Flower and Shrub** formulation.

B&B, Containerized Plants at Installation . . . Tank-mix "Bio-Plex Technical Transplant Concentrate" at 3.0-5.0 fl. oz. per 10 gallon water and deliver in sufficient quantity to thoroughly saturate entire root zone of plant. Healed-in plants in inventory can be effectively treated every 30-90 days to keep in prime marketable condition. Optional container pre-planting preparation - Full water immersion method. Mix 2-3 fl.oz. per 10-15 gallon water in large tub. submerge plants until bubbles stop rising from container soils. Remove, drain, and stage for planting within 30 days.

New & Established Landscape Plantings, Annuals, Perennials, Planters, Hanging Baskets . . . Tank-mix 2.0 fl.oz. per 10 gallon water and generously drench "pre or post" planting. Re-apply monthly (21-30 day intervals) when used as plant enhancer in conjunction with a sound fertility program.

Greenhouse Plant Enhancement Applications . . . New Bedding Plants, Rooted Cuttings, Pots, Tray Containers . . . Mix 30 fl. oz. in 5 gallon water and apply with a Dosatron or Dosamatic injector system. Irrigate at a ratio of 75:1 or 100:1. Re-apply 14-28 day intervals. As a liquid fertigation supplement, Mix 20 fl.oz. (@ 30 day cycle), 10 fl.oz. (@ 7-10 day cycle), in 5 gallon water and apply thru a Dosatron or Dosamatic injector system at a rate of 75:1 or 100:1. Reduction of soluble fertilizers possible to 25%. Rates used with a "syphonex system" - mix nurse tank source at 1:1 (1 fl.oz. Bio-Plex to 1 fl.oz. water).

Arborist, Plant & Root Enhancer - Deep-Root Feeding . . . (Compatible with Liquid NPK fertilizers) Applied by a portable pressurized injection system delivering thru a standard geometric grid pattern (2' spaced injection sites), within and extending to, or beyond the drip-line. Tank-Mix 0.25 to 0.75 fl. oz. Bio-Plex Technical Transplant Concentrate per 1" caliper trunk diameter. As a general guideline tank-mix as a supplement to fertilizers @ 1/2 to 1.0 Qt. per 100 gallons water. Two applications, Spring and Fall are ideal. Request **BIO-PLEX DEEP ROOT FEEDING PROGRAM @ 1-800-441-3573.**

KLORITZ Needle Probe Soil Injector . . . B&B - Applied per ball diameter. Dispense (50% solution) at a rate of 0.5 fl.oz. per 1.0 foot ball diameter (3strokes) thru burlap directly into ball at 2" depth. Applied per 1" caliper trunk diameter. Dispense (50% solution) at a rate of 1.0 fl.oz. per 1.0 inch caliper trunk diameter (6 strokes) thru burlap directly into ball at 2" depth along top, outside perimeter of "ball". Applied per "GALLON" size container, 1-5 Gallon Size. Dispense (50% solution) at a rate of 1/3 fl.oz. per each 1.0 gallon size container (2 strokes). 5 to 60 Gallon Size Containers. Dispense (undiluted concentrate) at a rate of 0.5 fl.oz. per each "5 Gallon Size" container (3 strokes), or 1.0 fl.oz per each 1.0" caliper trunk diameter, (6 strokes) NOTE-Applied "B&B, or Container" distribute probe injections randomly away from base of plant, and thoroughly water immediately afterwards to initiate plant uptake.

Bare Root Liners . . . Field planting tank-mix guidelines - Tank-mix "Bio-Plex" at 3.0-5.0 fl. oz.per per 10 gallon water and deliver mechanically to individual plant at field planting or as a container transplanting soil drench. Bareroot Bundle Soak - Mix 1.0 -2.0 fl.oz. per 3 gallon water in a bucket or other container and soak root bundles for 5 minutes. Plants should be transplanted within 7-10 days for best results.

Pre-Plant "Gel-Dip" . . . Mix Bio-Plex Technical Transplant Concentrate at 1.0-2.0 fl.oz.per 5 gallon water. Do not store for reuse for more than 48 hours without supplementing tank-mix by 25-50%.

Rooting Agent Dip & Soak Guidelines . . . General guidelines as follows . . . **DIP- Standard Cuttings @ 5 to 10 seconds at a 25% solution. DIP - Holly and Difficult Cuttings** - 50% solution @ 5-10 seconds. **As a SOAK** - Dilute 3-5 fl.oz. Bio-Plex Concentrate per 5 gallon water and soak for 5 minutes.

TURFGRASS GUIDELINES & RATES OF APPLICATION

Directions For Use: For best results, begin applications when soil temperatures consistently exceed 52° F. Tank-mix with sufficient water to evenly apply - 0.75 to 3.0 gallon of water per 1,000 sq. ft. "Bio-Plex Technical Transplant Concentrate" can be effectively tank mixed with other liquid fertilizers, herbicides, insecticides and fungicides - ONCE TANK-MIXED, use within 48 hrs. for best results. "Bio-Plex" is best utilized in conjunction with a good soil test and or as a supplement to your present fertility program. As always, conduct a compatibility test prior to tank mixing with other liquid fertilizers (especially high phosphorous formulations), chemicals, and other pesticides.

Golf Course - Greens , Tee - Apply 3.0 (Maintenance) to 5.0 fl. oz. (Curative) per 1,000 sq. ft. at 3 to 6 week intervals during active growing season on high maintenance warm season grasses. Can be effectively applied while tank-mixed with other pesticides.

Golf Course - Fairway Application - Apply at 0.5 gallon (Maintenance) to 1.0 gallon (Curative) per acre on warm or cool season cultivars. Continue spraying at 4-8 week cycles or sooner if required from early Spring thru late Summer. For optimum results deliver at 60 to 120 gallons of water per acre as a carrier.

Commercial Turf Maintenance - Apply 0.5 to 1.5 fl. oz. per 1,000 sq. ft. in conjunction with a balanced "N-P-K" nutrient management program. Higher rates (1.5 - 2.0 fl oz) would be applicable where more extreme stress, heat, cold, moisture deprivation currently exists. Tank-mix and spray at 60-120 gallons of water per acre.

Sod Production - New Seeding Program - apply 0.5 gallon "Bio-Plex Technical Concentrate" per acre - 30-45 days post new seed germination. Second follow-up application in 60-120 days at 1.0 gallon per acre. Tank-mix and spray at 60-120 gallons water per acre.

Turfgrass Overseeding - **Apply 21-30 days post seed germination** as a foliar spray at 0.5 to 1.0 gallon Bio-Plex Technical Concentrate per acre. Tank-mix and spray at 60-120 gallons per acre.

Sod Installation - Apply foliar 3.0 fl.oz. per gallon of water per 1,000 sq. ft. Where poor soil conditions or lack of proper moisture levels are available, 1 or 2 follow-up applications may be required at 14-28 day intervals at 1.5 to 2.0 fl. oz. per gallon per 1,000 sq. ft.

General Information: Bio-Plex® Technical Transplant Concentrate, is a concentrated liquid complex of seaweed extract, humic acid extract, and a "new generation" non-ionic wetting agent. This unique concentrated bio-stimulant complex has multiple, and diverse beneficial uses. Bio-Plex® Technical Transplant Concentrate, when applied according to label directions to turf and ornamental plants, has shown to effectively reduce transplant stress, increase fibrous root mass, increase moisture retention, delay senescence, increase photosynthetic capacity and anti-oxidants, as well as, speeding plant establishment and maturity.

Caution: May cause irritation of skin and eyes. If spilled on skin, rinse with water immediately. In case of contact with eyes, flush with water for at least 15 minutes. If symptoms persist, consult your physician.

Conditions of Sale: Manufacturer makes no guarantees regarding use of its products. Manufacturer's and seller's obligation and liability shall be limited to replacement for the quantity of defective material only. Neither seller or manufacturer shall be liable for any direct or collateral damages arising from the use, or misuse, of Bio-Plex Organics products. Herein, the buyer assumes all responsibilities and liabilities other than stated label guarantees.

• DO NOT STORE IN INTENSE, DIRECT, FULL-TIME SUNLIGHT WHERE HIGH, SUSTAINED HEAT PREVAILS ON A DAILY BASIS
• PROTECT FROM FREEZING • KEEP OUT OF THE REACH OF CHILDREN • FOR NON-FOOD CROPS ONLY

Manufactured by . . . Bio-Plex Organics, a division of Turf Chemicals Plus, Inc., 2213 Huber Dr., Manheim, PA 17545 • 1-800-441-3573, Fax (717) 653-0816 • Bio-Plex® a 1994 Registered Trademark of TCP, Inc.