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CYTOKIN[™]

Bioregulator Concentrate

A PLANT BIOREGULATOR to INCREASE CROP PRODUCTION EFFICIENCY

ACTIVE INGREDIENTS:

Cytokinin, as kinetin, based on biological activity.....0.01%
INERT INGREDIENTS.....99.99%

TOTAL.....100.00%

KEEP OUT OF REACH OF CHILDREN
CAUTION

See left panel for additional precautionary statements

Net Contents: 2.5 U.S. Gallons (9.5 Liters)

Distributed By:

pbt inc.

plant bioregulator technologies

CROP RECOMMENDATIONS (Continued)

Tomatoes, peppers, chilis, egg plant and okra: Spray 1 pint CYTOKIN per acre when the plants develop their 2nd to 8th leaf. Make subsequent spray applications of 0.5 to 1 pint per acre every two weeks until about 1 month before final harvest.

Cabbage, cauliflower, lettuce, spinach, celery, broccoli and other leaf or head vegetables: Spray CYTOKIN at 1 pint per acre when the seedlings have 5 leaves. Make a second spray application of 1 pint per acre two weeks later, and a third application two weeks after the second.

Onions: Spray fall seeded onions with 1 pint CYTOKIN per acre when winter dormancy is broken. Make additional CYTOKIN applications at 2 week intervals for a total of three applications. Spray spring seeded onions at 1 pint per acre when the seedlings have developed 4 blades. Repeat spray applications at 2 to 3 week intervals for a total of three applications.

Cucumbers, cantaloupes, muskmelons (etc), watermelons, winter squash, and summer squash: Spray CYTOKIN at 2 pints per acre when the seedlings have developed 4 to 8 leaves, follow with a second application of 2 pints per acre 2 weeks later. Make a third application 2 weeks after the second. CYTOKIN may continue to be applied at 2 week intervals as long as the vines continue to be productive, but applications made within 3-5 weeks of final harvest may not be as beneficial as were the earlier applications.

Beans: Fresh market. Spray CYTOKIN at 1/2 pint per acre application 1-3 weeks after emergence. Make a second 1/2 pint per acre application 2-3 weeks after the first. Dried beans: Spray CYTOKIN at 1/2 pint per acre at the 3rd to 7th trifoliate stage. Make a second application at the beginning of pod fill.

Grapes: Spray CYTOKIN at 1 pint per acre at any or each of the following growth stages: 1 Bud break, 2 Flowering, 3 Sizing, 4 Two to 4 weeks before harvest.

Sweet corn (multiple ear varieties) and popcorn: Spray CYTOKIN at 1/2 pints per acre first when the plants have developed 4 to 6 leaves and again at the 8 to 10 leaf stage.

Strawberries: See transplant instructions.

Cotton: To improve boll set and retention, apply as follows:

Early pinhead square application: Spray CYTOKIN at 4 ounces per acre beginning of pinhead square and spray again weekly for a total of 4 applications. If early season insect spray applications are being made, CYTOKIN at 4 ounces per acre should be included in each insect spray application.

Early Bloom Applications: Spray first CYTOKIN application at 1/2 pint per acre during period from one week before bloom to the first week of bloom and follow with the second application of 1/2 pint per acre 2 to 3 weeks later.

Rice: To promote tillering, spray foliage of the rice seedlings at the rate of 1 pint per acre during active tillering (the 3 to 7 leaf growth stage). To promote flowering and grain set, spray CYTOKIN at 1 pint per acre at the beginning of the jointing (panicle initiation) stage.

Soybeans: Spray CYTOKIN at 1 pint per acre at the beginning of bloom followed by 1 pint per acre at the beginning of pod fill.

Barghum: Spray CYTOKIN at 1/2 pint per acre to the seedling foliage once it has developed 3 leaves and up to the time it has developed 7 leaves.

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Corn: Spray CYTOKIN to corn foliage at the rate of 1 pint per acre when the corn plant has developed 8 to 10 leaves.

Wheat: Spring seeded grain: Spray CYTOKIN at 1 pint per acre when the plants have 4 to 7 true leaves emerged. Fall seeded grain: Spray CYTOKIN at 1 pint per acre in the spring when the plants break winter dormancy up to the time of jointing. The cut-off time for spray application is the time the growing point moves above ground - i.e., at the cutoff for phenoxo herbicide application.

Sugar beets: Make the first spray application of 2 pints per acre at the beginning of root enlargement followed by 1 pint per acre two to three weeks later. Make the final application of 2 pints per acre about 4 to eight weeks before harvest or selling fruit.

Trees, Fruits, Flowering Plants, Shrubs and Woody Ornamentals: To reduce transplant shock and to promote growth and vigor and reduce stress in actively growing fruit trees such as apple, peach, evergreen trees such as spruce, fir, pine, deciduous trees such as birch, elm, maple, flowering plants and shrubs such as pansy, rose, azalea, rhododendron, clematis, and for other flowering and non flowering shrub. Transplant drench: See transplant instructions. Faller spray: Spray seedlings at 1 pint per acre, or with a solution of 1 part CYTOKIN in 500 parts water 2 to 4 weeks after transplant and follow with subsequent sprays at 2 to 4 week intervals during the active growing season.

Chemigation: Dilution CYTOKIN at 1 part of 1000 parts water for application through drip or sprinkler irrigation system at 2 to 4 week intervals. **Established Tree and Shrubs:** Spray 2 pints per acre, or a mixture of 1 part CYTOKIN to 500 parts water to thoroughly wet the foliage at any or all of the following growth stages: 1 early spring to promote root initiation, 2 at bud break, 3 at terminal calyx, 4 Early to mid fall.

Fruit Trees: Apple, Orange, Banana, Peach. Transplants: Follow general transplant instructions. Fruit trees in production: Spray fruit trees at 2 pints per acre or with a solution of 1 part CYTOKIN to 500 parts water at the following growth stages: 1 At bud break to increase pollination efficiency (CYTOKIN will not harm bees or pollinating insects), 2 At 1 week after petal fall to promote fruit retention, 3 At 1 to 2 weeks before usual spring fruit drop to reduce physiological stress and reduce fruit drop, 4 Monthly during fruit growth and development to promote nutrient translocation to produce larger and better quality fruit, 5 Spray at one month post-harvest to promote new root development and initiate fruit buds for the next crop.

Warranty: The manufacturer warrants that this product shall be of its standard quality and shall conform to the label thereon. Recommendations for use of the product are based on tests believed to be reliable. The use of the product being beyond the control of the manufacturer, no guarantee expressed or implied is made as to the effects of such or the results to be obtained, except as expressly set forth on the label thereon. The BUYER must assume all responsibility if not used in accordance with directions or established sale practices, including injury or damage resulting from its misuse as such or in combination with other materials. The manufacturer's liability shall be limited to the replacement without charge, FOB warehouse, of all product shown to be otherwise than as warranted.

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Overland Park, Ks. 66207

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Chemigation system: Apply CYTOKIN only through the following types of systems: sprinkler, including center pivot, lateral move, and low, side roll, traveler big gun, solid set, or hand move, or drip (trickle) irrigation systems. Do not apply this product through any other type of system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment.

irradiation. Carrying and spraying have one
Storage and Disposal: **STORAGE:** Store in a cool place and out of direct sunlight. Keep from freezing. Do not contaminate water, food, or feed by storage or disposal. **DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or incineration, or, if allowed by state and local authorities, by burning. If burned stay out of smoke.

APPLICATION INSTRUCTIONS - SHAKE WELL BEFORE USING

For general use, mix 1 part CYTOKIN with 400 parts water and spray plant foliage to dampness, almost to runoff. For best results CYTOKIN should be applied in the morning or after 4 P.M.

For larger areas where aircraft or power driven sprayers are used to apply the spray, follow the specific crop use rates below. Apply with sufficient water to get thorough foliage coverage, 3 to 10 gallons water per acre for aircraft sprayers and 10 to 50 gallons water per acre for ground driven spray equipment.

CYTOKIN may be used with a surfactant and can be applied as mixture with most pesticides. To be safe, run a "jar compatibility test" and treat a small area with any new mixture to test the chemical and crop reaction before large field application.

For transplanting: Drench the soil around each plant with a mixture of 1 part CYTOKIN in 500 parts water or transplant solution. Spray seedlings with a solution of 1 part to 500 parts water or 1 pint per acre 2 to 4 weeks after transplanting and follow with subsequent sprays at 2 to 4 week intervals throughout the growing season.

Chemigation application: Dilute 1 part CYTOKIN with at least 5 parts water before adding to the supply tank. Continuous agitation of supply tank is recommended during application or injection into the chemigation system. When practical apply CYTOKIN through the drip system with the first 1/4 acre inch equivalent of water. In sprinkler systems CYTOKIN may be applied over the watering cycle.

CROP RECOMMENDATIONS.

Potatoes: Spray potatoes at 1 pint per acre at tuber initiation (tuber set) which occurs 4 to 6 weeks after emergence, and again two to three weeks later. The last spray should occur at the beginning of bloom in those varieties that flower.

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CYTOKIN is a plant regulator product containing natural cytokinin plant hormone bioregulator specially formulated to promote bud initiation and development, rooting, tillering, flower set and retention, improve fruit size and increases efficiency of production.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Before using CYTOKIN read and follow the precautions appearing on the label.

Re-Entry: Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be evacuated by unprotected persons. Do not enter treated areas without protective clothing until sprays have dried.

Storage and Disposal: **STORAGE:** Store in a cool place and direct sunlight. Keep from freezing. Do not contaminate water, food, or feed by storage or disposal. **DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

APPLICATION INSTRUCTIONS—SHAKE WELL BEFORE USING

For general use, mix 1 part CYTOKIN with 400 parts water and spray plant foliage to dampness, almost to runoff. For best results CYTOKIN should be applied in the morning or after 4 P.M.

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For transplanting: Drench the soil around each plant with a mixture of 1 part CYTOKIN in 500 parts water or transplant solution. Spray seedlings with a solution of 1 part to 500 parts water or 1 pint per acre 2 to 4 weeks after transplanting and follow with subsequent sprays at 2 to 4 week intervals throughout the growing season.

Chemigation application: Dilute 1 part CYTOKIN with at least 5 parts water before adding to the supply tank. Continuous agitation of supply tank is recommended during application or injection into the chemical system. When practical apply CYTOKIN through the drip system with the rate of 1.4 acre inch equivalent of water. In sprinkler systems CYTOKIN may be applied over the watering cycle.

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TOTAL.....100.00%

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Overland Park, Ks.

CROP RECOMMENDATIONS.

Potatoes: Spray potatoes at 1 pint per acre at tuber which occurs 4 to 6 weeks after emergence, and again later. The last spray should occur at the beginning of the flowering stage.

Tomatoes, peppers, chilis, egg plant andokra: Spray acre when the plants develop their 6th to 8th leaf. Make applications of 0.5 to 1 pint per acre every two weeks before final harvest.

Cabbage, cauliflower, lettuce, spinach, celery, broccoli and head vegetables: Spray CYTOKIN at 1 pint per acre when plants have 5 leaves. Make a second spray application of 1 pint later, and a third application two weeks after the second.

Onions: Spray fall seeded onions with 1 pint CYTOKIN (bulb initiation). Make additional CYTOKIN applications for a total of three applications. Spray spring planted acre at bulb initiation (when the plants have 3-4 blades) and at 2 to 3 week intervals for a total of three applications.

Cucumbers, cantaloupes, muskmelons (all), watermelon, and summer squash: Spray CYTOKIN at 2 pints per acre when seedlings have developed 4 to 8 leaves, follow with a second application 2 weeks later. Make a third application 2 weeks after the second. CYTOKIN may continue to be applied at 2 week intervals as long as the vines continue to be productive, but applications made after the vines begin to senesce are not beneficial.

Beans: Fresh market. Spray CYTOKIN at 1/2 pint per acre when seedlings have developed 4 to 8 leaves, follow with a second application 2 weeks after the first. Dried beans. Spray CYTOKIN at 1/2 pint per acre when the plants have 3 to 4 leaves, follow with a second application at the 7th trifoliate stage. Make a third application at the 10th trifoliate stage.

Grapes: Spray CYTOKIN at 1 pint per acre at any or all of the following growth stages: 1. Bud break, 2. Flowering, 3. Sizing, 4. Harvest.

Sweet corn (multiple ear varieties) and popcorn: Spray CYTOKIN at 1 pint per acre first when the plants have developed 4 to 6 leaves, and again at the 8 to 10 leaf stage.

Strawberries: See transplant instructions.

Cotton: To improve boll set and retention, apply as follows: **Early pinhead square application:** Spray CYTOKIN at beginning of pinhead square and spray again weekly for 2-4 weeks. If early season insect spray applications are being made, 2-4 ounces per acre should be included in each insecticide application.

Early Bloom Applications: Spray first CYTOKIN application during period from one week before bloom to the end of bloom. Follow with the second application of 1/2 pint per acre 2 to 4 weeks after the first. **Rice:** To promote tillering, spray foliage of the rice seedlings at 1 pint per acre during active tillering (the 3 to 7 leaf growth stage). To promote flowering and grain set, spray CYTOKIN at 1 pint per acre at the beginning of the panicle initiation stage.

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