Proposed changes to current label are found only in ingredient statement on front panel and are highlighted for ease of review.

Cytokin® Bioregulator Concentrate

A Plant Bioregulator to Increase Crop Production Efficiency

ACTIVE ingredients:	
Cytokinin, as kinetin, based on biological activity	0.01%
Includes:	
6-(4-hydroxy-3-methylbut-trans-2-enylamino)-purine	
N^6-methylaminopurine,	
N^6-dimethylaminopurine,	
N^6-isopentenylaminopurine	
INERT Ingredients	99.99%
Total	100.00%

KEEP OUT OF REACH OF CHILDREN

CAUTION

Harmful if swallowed or absorbed through the skin! Causes skin irritation! Do not breath vapor or spray mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling.

Statement of Practical Treatment

If swallowed: call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If on skin: Wash skin with soap and water

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

SEE INSIDE FOR ADDITIONAL PRECAUTIONARY STATEMENTS

Produced for P.B.T., Inc.
Corrales, NM 87048
EPA Registration Number 58199-1
EPA Establishment #3837-MO-1
Net contents: Lot No.:

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ACCEPTED
MAR 4 1998
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 58199-1

PRECAUTIONARY STATEMENTS
CAUTION

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Personal Protective Equipment

Applicators and other handlers must wear long-sleeved shirt and long pants and shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining personal protective equipment. If no such instructions for washables, use detergent and hot water. Keep and wash personal protective equipment separately from other laundry.

User Safety Recommendations:

Users should:

-Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
-Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
-Remove personal protective equipment immediately after handling this product. wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS:

Do not contaminate water when disposing of equipment wash water.

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean highwater mark.

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.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Chemigation system

Apply Cytokin only through the following types of systems: sprinkler, including center pivot, lateral move, end tow, 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 non uniform 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 about the chemigation systems 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 at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), back flow 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 favor drift beyond the area intended for treatment.

Supply pesticide tank agitation, especially if product is to sit in tank for over 6 hours.

Cytokin may be applied continuously for the duration of water application or with the first quarter to one-half of the watering period.

Mixing instructions: Fill supply tank to 1/4 to 1/2 full. Add Cytokin and complete filling.

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.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is coveralls, waterproof gloves and shoes plus socks.

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 hereon. The BUYER must assume all responsibility if not used in accordance with directions or established safe 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.

Cytokin® Bioregulator Concentrate
Recommendations for Use

Cytokin is a plant growth regulator product containing natural cytokinin plant hormone formulated to improve nutrient utilization, promote bud initiation and development, tillering, flower set and retention, improve fruit size, and increase efficiency of production.

Use Cytokin in combination with a well-balanced fertility program and good management practices. The Company recommends the use of soil and tissue testing, and additional nutrients and micronutrients as needed. For maximum benefit, add 0.1 to 0.25 lbs. Calcium to spray solution with a complete fertilizer, such as 20-20-20 or 12-48-8 along with chelated micronutrients.

APPLICATION INSTRUCTIONS - SHAKE WELL BEFORE USING

Good growing conditions are necessary for the maximum utilization of Cytokin. For maximum gain from the use of Cytokin, a well-balanced plant nutrient program should always be used. Cytokin, in any of its applications, is not intended to replace fertilizer or to supply nutrients that would normally be added in a conventional fertility program. Timing of the foliar spray application is very important. Always follow directions precisely. Do not apply when temperatures are above 95° F (36° C) or within eight hours of forecast rain.

For General Use, mix 1 oz. CYTOKIN with 4 gallons water and spray plant foliage to dampness, almost to runoff. For best results, CYTOKIN should be applied in the morning or late afternoon.

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 100 gallons water per acre for ground driven spray equipment. CYTOKIN may be used with a surfactant and can be applied as a 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 soil around each plant with a mixture of 1 oz. CYTOKIN in 4 gallons water or transplant solution. Spray seedlings with a solution of 1 oz. Cytokin in 4 gallons water or 1/2 to one pint per acre 2 to 4 weeks after transplanting and follow with subsequent sprays at recommended 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. Where practical, apply CYTOKIN through the drip system with the first 1/4 inch equivalent of water. In sprinkler systems, CYTOKIN may be applied over the watering cycle.

CROP USE GUIDELINES

CROP	Broadcast Rate/Acre (each application)	TIMING AND FREQUENCY
Asparagus	16 oz.	Spray Cytokin to fern about 2 weeks after last harvest and repeat monthly during fern growth.
Beans -fresh: edible, green, etc. and peas	8 oz	First: apply at the 2 to 3 trifoliate leaf stage. Second: 7 to 15 days later.
Beans and peas - dry	8 oz	Apply when plants have developed 3 to 7 trifoliate leaves, again at early bloom, and again at the beginning of pod fill.
Bell Peppers, Chile peppers Eggplant	8 oz	Apply at the 6 to 8 leaf stage. Follow with applications at 7 to 14 day intervals for a total of and four to six applications.
Broccoli, Cabbage, Cauliflower Celery, Lettuce	8 oz	Make 4 to 6 applications at two week intervals beginning at the 3 leaf stage. Applications can be divided to provide weekly application of 2 to 4 oz/A applied with other spray mixtures of insecticides or foliar nutrients.
Carrot and other root crops	16 oz	Apply when the seedlings have 3 to 6 leaves. Cytokin can be applied with Lorox® (Linuron).
Corn (field)	8 oz	Apply to prolific (multiple ear) varieties only. Make first application at the 8 to 10 leaf stage. Follow with second application at tasseling.
Corn (sweet and popcorn)	8 oz	Apply at the 5 to 7 leaf stage. Follow with second application at tasseling.
Cotton	2 to 4 oz. OR 8 oz.	Pinhead square: Apply weekly for 4 weeks. Adjust for band width; OR First Bloom: Apply at first white flower and again two weeks later (mid bloom).
Cotton (stripper)	8 oz.	Make single application during first 2 to 3 weeks of bloom.
Cucumber	16 to 32 oz	Broadcast spray applications: To promote early female vigor and enhance yields, apply at the 3 to 6 leaf stage and continue at weekly to 14 day intervals for four applications. Banded rates at the 3 to 6 leaf stage should begin at the 4 to 6 oz rate for the first application.

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CROP USE GUIDELINES

CROP	Broadcast Rate/Acre (each application)	TIMING AND FREQUENCY
Grapes	16 oz	1st: apply at the 12-18 inch cane stage to increase bunch size and length, and to support the flowers on the cluster 2nd: apply during bloom to improve berry set. 3rd: apply during berry set to promote berry development. 4th: Apply 2 to 4 weeks before harvest to promote sugar accumulation and storage.
Melons (Cantaloupe, Muskmelon, Watermelon)	16 to 32 oz	Broadcast spray applications: To promote early le female vigor and enhance yields, apply at the 3 to 6 vigor and enhance yields, apply at the 3 to 6 leaf stage and continue at weekly to 14 day intervals for four applications. To promote sugar development l during cool growing conditions and enhance size of melons, apply Cytokin beginning at bloom and at weekly to 14 day intervals until 3 weeks before harvest. Banded rates at the 3 to 6 leaf stage should begin at the 4 oz rate for the first application.
Onions	8 oz	Spray fall seeded onions in spring at bulb initiation and at weekly to 2 week intervals for 3 to 4 applications. Transplants: see transplant instructions. Spray transplants at bulb initiation (2 to 4 new blades) and again weekly for up to 4 applications.
Peanuts	8 oz	Apply at the 3rd trifoliate. Repeat at 10 day intervals for four applications.
Potatoes	Seed Treatment	Dip potato pieces in a solution of 1 part Cytokin to 400 parts water for 20 to 60 seconds. Cytokin can be used with a fungicide treatment. Follow with foliar spray program.
	8 oz	Spray at tuber initiation (3-4 weeks after emergence) and again two weeks later.
Rice heads	8 oz	Spray at the 3 to 7 leaf stage to increase tillers and panicles or at the PI/PD stage to reduce straight and increase panicle size.
Sorghum (Milo)	8 oz	Apply single spray during the 4 to 7 leaf stage.
Soybeans	8 oz	Apply during the 3 to 5 trifoliate stage, and each of the R1 and R5 stages.
Spinach and Leafy Greens	8 oz	Make 4 to 6 applications at two week intervals beginning at the 3 leaf stage. Applications can be divided to provide weekly application of 4 oz/A applied with other spray mixtures of insecticides or foliar nutrients.

CROP USE GUIDELINES

CROP	Broadcast Rate/Acre (each application)	TIMING AND FREQUENCY
Squash: Summer, Winter zucchini	16 to 32 oz	Broadcast spray applications: To promote early female vigor and enhance yields, apply at the 3 to 6 leaf stage and continue at weekly to 14 day intervals until 2 weeks before final harvest. Banded rates at the 3 to 6 leaf stage should begin at the 4 oz rate for the first application.
Strawberries	8 to 16 oz	Transplants: See transplant instructions. Begin spray applications at 1 to 2 weeks after transplanting and continue at 7 to 14 day intervals throughout the production season.
Beets, Sugar	8 to 16 oz	First application: Apply at the beginning of root enlargement.
	16 oz	Second: Apply at the beginning of sugar accumulation
	16 oz	Final; Apply 4 to 6 weeks before harvest.
Sugarcane	16 oz.	First: At beginning of ratoon bud extension. Second: One month after ratoon growth begins.
	32 oz.	Final: 4 to 6 weeks before harvest.
Tomatoes (Fresh market) Okra	8 oz	Spray Cytokin at the 6 to 8 leaf stage. Follow with 7 to 14 day applications to promote set and continue production. Make final application about 3 to 4 weeks before final harvest.
Tomatoes (processing)	8 oz.	Apply Cytokin at the beginning of bloom. Make subsequent applications at 2 to 4 week intervals until 3-4 weeks before harvest.
Spring Wheat, Barley, Rye and Oats	8 oz	Apply when plants have 3 to 5 true leaves emerged.
Winter Wheat, Barley, and Rye	8 oz	Spray in the spring after the plants break dormancy but before jointing.

Fruit Trees: Apple, Orange, Banana, Peach

Transplants: Follow general transplant instructions.

Fruit trees in production: Spray fruit trees with a solution of 1 oz Cytokin in 4 gallons water (or 1 to 2 pints/A) 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 cell division;
3. At 1 to 2 weeks before fruit drop to reduce physiological stress and reduce fruit drop;
3. At 20 to 30 days after petal fall to increase fruit size;
4. Monthly during fruit growth and development to promote nutrient translocation to produce larger and better quality fruit.

For best results apply Cytokin with foliar nutrients, micronutrients or secondary nutrient sprays such as calcium, iron, and zinc.

Non-Bearing Use for TREES, FRUITS, NUTS, BERRIES, SHRUBS AND WOODY ORNAMENTALS: To aid in propagation of trees, fruits, berries, soft wood cuttings, shrubs and woody ornamentals and to reduce transplant shock, to promote growth and vigor and reduce stress in non-bearing fruit trees such as apple, peach; berry and vine crops such as cranberries; evergreen trees such as spruce, fir, pine; deciduous trees such as birch, elm, maple; flowering plants and shrubs such as poinsettia, rose, azalea, rhododendron, crepe myrtle; and for other flowering and non-flowering shrubs.

New cuttings: Spray Cytokin at 1 to 2 pints per acre on the stems, branches, vines or canes to be propagated from 1 to 7 days before cutting. After planting, spray Cytokin at 1/2 to 1 pint or apply through the irrigation system at weekly intervals until the plants are established.

Replant areas: Spray the plants before cutting. Then spray Cytokin weekly at 1/2 to 1 ounce per 1500 square feet and irrigate in. Continue weekly to biweekly applications until the plants are established.

Established Trees and Shrubs: Spray 1 to 2 pints per acre, or a mixture of 1 oz CYTOKIN to 4 gallons water to thoroughly wet the foliage at any or all of the following growth stages:

1. Early spring to promote bud initiation;
2. At bud break;
3. At terminal calyx;
4. Early to mid fall.

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