

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (75-767)
WASHINGTON, DC 20460

EPA REGISTRATION

DATE OF ISSUANCE
FEB 21 1990

58199-3

TERM OF ISSUANCE

CONDITIONAL

NAME OF PESTICIDE PRODUCT

NOTICE OF PESTICIDE: REGISTRATION
 REREGISTRATION

(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)

N Zyme PGC

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

P.B.T., Inc.
4201 W. 99th Street
Overland Park, KS 66207

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an endorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
2. Make the labeling changes listed below before you release the product for shipment:
 - a. Add the phrase, "EPA Registration No. 58199-3."
 - b. In addition to the chemigation statements included on the label, you must add the statements in paragraph VII on page 8 of PP Notice 87-1 since not all applications would be made using public water systems.
 - c. You must address the "nonspecific required label statements" under paragraphs VI (B) or VII (B).
 - d. In the list of irrigation systems (1st paragraph under ~~chemigation systems~~) on the label, delete "drip trickle". This type of irrigation system does not appear to be appropriate for turf uses.

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

Robert J. Taylor

DATE

2/21/90

- c. Most dosage rates on the label are stated as "ounces". Change to "fluid ounces" for rates not already stated in this manner.
 - f. Precautionary Statements - Add the subheading "Hazards to Humans and Domestic Animals" below the Precautionary Statement heading.
 - g. Environmental Hazards - Remove the subheading "Re-entry". Labels of all outdoor agricultural use products which are applied to crops whose culture requires hand labor are required to bear the farmworker safety label statements. See 40 CFR 170.1 to see if these requirements are applicable.
3. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

N-Zyme PGS

**A NATURAL PLANT HORMONE TO INCREASE QUALITY, RESILIENCE
and DURABILITY OF ORNAMENTAL TURF**

ACTIVE INGREDIENT:

CYTOKININ (as kinetin, based on biological activity)..... ..0.005%
Inert ingredients:..... .. 99.995%
Total..... ..100.000%

KEEP OUT OF REACH OF CHILDREN

CAUTION

See side panel for additional precautionary statements.

ACCEPTED
with 100%
in EPA

Produced by: P. B. T., Inc.
4201 West 99th St.
Overland Park, KS 66207

Net Contents: 1.0 gallon (3.78 liters).

N-Zyme PGS is a plant growth stimulant containing natural cytokinin plant growth substance to promote deep root development, increase tiller, rhizome and stolon growth, and to provide vigor and stress tolerance to ornamental turf grass such as Bent grass, Bermuda grass, centepede, fescue, Kentucky Bluegrass, Perennial Ryegrass, St. Augustine grass and Zoysia.

N-Zyme PGS contains extracted amino acids, vitamins, proteins, carboxylic acids, carbohydrates, natural cytokinin plant growth stimulant, and sea minerals and nutrients derived from sea vegetables.

PRECAUTIONARY STATEMENTS:

CAUTION: Harmful if swallowed or absorbed through the skin! Causes skin irritation! Do not breathe vapor or spray mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling. **IN CASE OF CONTACT**, wash skin with soap and water; **FOR EYES**, flush with plenty of water. Get medical attention if irritation persists. **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.

ENVIRONMENTAL HAZARDS:

Do not contaminate water when disposing of equipment washwater.
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 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.

DIRECTIONS FOR USE:

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Before using N-Zyme PGS, read and follow the precautions appearing on the label. For best results N-Zyme PGS should be applied in the morning or after 3 P.M. in summer heat. Apply at any time in cool weather. Follow the specific use rates below. Apply with sufficient water to get thorough foliage coverage. N-Zyme PGS may be used with a surfactant and can be applied as mixture with most fungicides, herbicides, insecticides or liquid fertilizer. 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 application to a large area.

Chemigation system: Apply N-Zyme PGS 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 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 or being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment.

APPLICATION RATES:

Spring Application: Make an early application of N-Zyme PGS to promote tiller, rhizome stolon growth, to develop a deep root system, and to give the turf a rapid start once winter dormancy is broken and growth begins. Spring application is important to provide a deep root system which will condition the turf and reduce the stress of disease and of the heat of summer or low rainfall.

Fall Application: Two to three applications of N-Zyme PGS should be made in the fall beginning about six to eight weeks before the grass starts to become dormant to promote root growth and provide the grass with the vigor to better endure the stress of winter (reduce winter kill) and improve survival of a good healthy turf for the following spring.

Golf Greens: At the beginning of spring growth apply 2 fluid ounces per 2500 square feet (2 pint/acre) at the breaking of dormancy. Make successive maintenance applications of 1 to 2 fluid ounces per 2500 sq. ft. at 2 to 4 week intervals or as needed to maintain root growth, tillering, appearance and vigor throughout the growing season. Make three applications of 1 to 2 ounces per 2500 sq. ft. at 2 week intervals in the fall prior to winter weather to promote root growth and increase winter stamina to reduce winter kill.

Fairways: Apply 1 to 2 oz. per 2500 square feet (1 to 2 pint/acre) at the beginning of spring growth and follow with 1 ounce per 2500 ft. sq. monthly or as needed to maintain tillering vigor, root growth, and reduce the stress of traffic and heat on the fairways. (See Fall Application)

Football, Soccer, and Baseball Fields: Apply 1 to 2. oz. per 2500 square feet (1 to 2 pint/acre) weekly to the infield or playing field to maintain root structure and renew growth and vigor between games. In the off-season, apply once or twice monthly to develop good turf structure. Application of 2 oz per 2500 sq. ft. should be made to the outfield monthly or as needed to overcome stress of heavy use and to maintain appearance and vigor of the playing field.

Lawns or Playgrounds: Apply 2 ounce per 2500 square feet (2 pint/acre) at the beginning of spring growth to promote a deep root system and tillering to fill sparse areas. Apply at 1 to 2 ounces per 2500 square feet monthly to maintain health and vigor of the turf. Application can be made more frequently as needed to support the lawn during stress or under periods of heavy use.

Parks or Recreational Areas: Apply 2 ounce per 2500 square feet (2 pint/acre) at the beginning of spring growth to promote a deep root system and tillering to fill sparse areas. Apply at 1 to 2 ounces per 2500 square feet monthly to maintain health and vigor of the turf. Application can be made more frequently as needed to support the turf during stress or under periods of heavy use.

Sod: Spray N-Zyme PGS to newly laid sod at 2 oz per 2500 sq. ft. to promote rooting and increase the rate of sod establishment. Maintain growth and vigor with monthly applications of 1 to 2 ounces per 2500 square feet.

Sod Farming: Spray N-Zyme PGS to sod 1-4 days before harvesting to initiate new root growth and speed up reestablishment when it is laid. Spray N-Zyme PGS at 2 oz per 2500 sq. ft. to sod fields to promote root and tiller growth and to bring the crop to harvest more quickly. Maintain accelerated growth with N-Zyme PGS applications of 1 to 2 pint/acre at 2-4 week intervals or as needed.

Landscaped Roadways: Apply 2 ounce per 2500 square feet (2 pint/acre) at the beginning of spring growth to promote a deep root system and tillering to fill sparse areas. Apply at 1 to 2 ounces per 2500 square feet monthly to maintain health and vigor of the turf. Application can be made more frequently as needed to condition the turf for stress or for periods of heavy use.

Cemetaries: Apply 2 oz. per thousand square feet at the beginning of spring growth and follow with 1 ounce per 2500 ft. sq. monthly or as needed to maintain tillering vigor, root growth, and reduce stress.

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 manufacturers liability shall be limited to the replacement without charge, FOB warehouse, of all product shown to be otherwise than as warranted.

EPA Reg. No. 58199-?
EPA Est. No. 3837-MO-1

