# MAR 2 2 1994

Mr. Andy Eimanis
Makhteshim - Agan of North America Inc.
551 Fifth Avenue
Suite 1100
New York, New York 10176

Dear Mr. Eimanis:

Subject: Addition of Ornamentals, Worker Protection Labeling
Pyrinex 4EC
EPA Registration No. 66222-3
Your Submission Dated February 11, 1994

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), sec. 3(c)(7)(A), is acceptable 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 following labeling changes before you release the product for shipment bearing the amended labeling:
    - a. Under the Personal Protective Equipment (PPE) requirements, "shoes plus socks" <u>must</u> be changed to "chemical-resistant footwear plus socks." This change also must be made in the PPE required for early entry into treated areas. Additionally, change the PPE bodywear from "long-sleeved shirt and pants" to "long-sleeved shirt and long pants."
    - b. Add the following mixer/loader requirement to the PPE paragraph: "Chemical-resistant apron when cleaning equipment, mixing or loading."
    - c. The respirator requirements for the PPE <u>must</u> also include the following text: "For exposure outdoors, dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-14G)."

- d. The Environmental Hazards statement must be updated in accordance with PR Notice 93-3. The statement "Do not apply directly to water" must be amended to read: "Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark."
- e. In the Non-Agricultural Use Requirements box, add "sodfarms and grass grown for seed" to the end of the second sentence, ie. "...agricultural plants on farms, forests, nurseries, greenhouses, sodfarms, or grass grown for seed."
- f. Under the heading "Ornamentals (Soil Treatment),"

  delete the text regarding PPE ("...Wear chemically resistant gloves..."). Please note that the second half of this paragraph is repeated on the following page, the duplicate text must also be deleted.
- g. Correct the typographical errors in the following words: in the front panel Spanish warning, "algulen" should be "alguien;" page 9, "Catalpha sphinx" should be "Catalpa Sphinx;" page 13, "Florida was borer" should be "Florida wax borer."
- 3. Submit five (5) copies of your final printed labeling before you release the product for shipment.

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 bearing the amended labeling constitutes acceptance of these conditions.

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

Sincerely yours,

DHE

Dennis H. Edwards, Jr. Product Manager (19) Insecticide-Rodenticide Branch Registration Division (7505C) To Be Applied Only by or Under the Direct Supervision of Pest Control Operators Responsible for Insect Control Programs. Sale to or Use by Persons Owning or Occupying a Dwelling is Strictly Prohibited.

#### **PYRINEX 4EC**

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Chlorpyrifos: [0,0-diethyl 0-(3,5,6-trichloro-2-pyridyl) phosphorothioate] ... 44.9% INERT INGREDIENTS: (Contains xylene range aromatic solvent) ..... 55.1%

ACCEPTED
with COMMENTS
R EPA Letter Detail

Contains 4.0 pounds active ingredient per gallon.

MAR 2 2 1994

## **KEEP OUT GF REACH OF CHILDREN**

**WARNING - AVISO** 

Under the Federal Insecticide, Fungicide, and Redcuticide Act as amended, for the pesticide registered under EPA Reg. No.

Si usted no entiende la etiqueta, busque a algulen para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

#### STATEMENT OF PRACTICAL TREATMENT

#### **ORGANOPHOSPHATE**

IF SWALLOWED: Call a physician or Poison Control Center immediately. Do not induce vomiting. Contains an aromatic petroleum solvent. Do not give anything by mouth to an unconscious person. IF ON SKIN: Immediately wash with plenty of soap and water. Get medical attention if irritation persists.

IF IN EYES: Immediately flush with plenty of water. Get medical attention of irritation persists. IF INHALED: Remove victim to fresh air. If symptoms of cholinesterase inhibition appear (i.e., HEADACHE, DIZZINESS, WEAKNESS, INCOORDINATION, MUSCLE TWITCHING, TREMOR, NAUSEA, ABDOMINAL CRAMPS, DIARRHEA, OR SWEATING) get medical attention immediately.

NOTE TO PHYSICIAN: Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate significance of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early, however, use only in conjunction with atropine. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration.

See other pages for additional Precautionary Statements.

BEST AVAILABLE COPY

Net Contents: Gallons

Makhteshim-Agan of North America Inc. 551 Fifth Avenue, Suite 1100 New York, N.Y. 10176

EPA Registration No. 66222-3 EPA Est. No.

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## PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### WARNING

May be fatal if swallowed. May cause eye and skin irritation. Harmful if inhaled or if absorbed through the skin. Avoid contact with eyes, skin or clothing. Avoid breathing vapors or spray mist. Handle concentrate in a ventilated area.

# PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category G on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear: long sleeved shirt and pants, chemical resistant gloves such as barrier laminate or Viton ( $\geq$  14 mils), shoes plus socks, protective eyewear, and, for exposures in enclosed areas, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statement: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **USER SAFETY RECOMMENDATIONS**

## Users should:

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

## PHYSICAL AND CHEMICAL HAZARDS

COMBUSTIBLE - Do not store or use near heat or open flame.

## **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to birds and wildlife, and extremely toxic to fish and aquatic organisms. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. Cover or incorporate spills. Do not contaminate water by disposal of equipment washwaters.



#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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.

Do not apply this product through any type of irrigation system. Do not formulate this product into other end-use products.

Attention: Keep out of fishpools and other bodies of water. Do not treat vegetable gardens. Do not allow livestock to graze in treated areas. Do not feed treated grass cuttings (hay) or seed screenings to livestock nor use hay for livestock bedding. Do not use in poultry houses.

## 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) 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 12 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, chemical-resistant gloves such as barrier laminate or Viton (> 14 mils), shoes plus socks, and protective eyewear.

#### **NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

For pest control indoors: Do not allow children or pets to contact treated surfaces until sprays have dried.

For turf and other non-agricultural outdoor uses: Do not allow public use of treated areas during application or until spray has dried.



## **PEST CONTROL INDOORS**

Use PYRINEX 4EC Insecticide to control pests listed in the following table by applying at the recommended dosages. Use a 0.25% spray to control light infestations and a 0.5% spray to quickly reduce heavy infestations or as directed. To prepare the spray, dilute PYRINEX 4EC Insecticide with water or with a suitable base oil. Use only deodorized kerosene for oil-based sprays.

Applications may be made within residential buildings, including homes and apartment buildings. Applications may also be made within mausoleums and nonfood areas of industrial, institutional, and commercial buildings, including hospitals, stores, manufacturing plants, and warehouses.

Applications may be made within food-handling establishments. This includes, but is not limited to, restaurants, grovery stores, bakeries, bottling plants, canneries, and grain mills.

In food handling establishments use only as a spot treatment. Spot treatment may encompass crack and crevice treatments by applying small amounts of material directly into openings leading to voids and hollow spaces walls, equipment legs and bases, or which occur at points between different elements of construction, or between equipment and floor. Equipment capable of delivering a pinstream of spray should be used. Repeat treatment as needed, but not more often than once every 7 days in restaurants and similar food service establishments. In case of emergency (call-back), PYRINEX 4EC may be applied after 2 days from last treatment, but emergency use should be limited to once per month. Applications of this product in food handling establishments other than as a spot and/or crack and crevice treatment are not permitted.

Apply as a coarse, low pressure spray (20 psi or less) or with a paint brush to localized areas and nonfood areas. Treat where insects are found or normally occur, including dark corners of rooms and closets; floor drains; cracks and crevices in walls; along and behind baseboards; beneath and behind sinks, stoves, refrigerators, refrigerator units, and cabinets; and around plumbing and other utility installations.

NOTE: Where quick 'knockdown' and/or 'flushing action' is desired, pyrethrins may be added to the spray mixture containing PYRINEX 4EC insecticide. For best results, use pyrethrins at 0.25% in water-based sprays and 0.05% in oil based sprays. Consult labeling for pyrethrin products used to determine the amount needed to give the desired spray concentration. Also read and observe all use and handling precautions for these products. Mixtures of PYRINEX 4EC insecticide and pyrethrins should not be sprayed on carpets. Do not apply water-based sprays of this product in conduits, motor housings, junction and switch boxes, or other electrical equipment because of possible shock hazard. If there is need to treat such areas, use only oil-based sprays. Prior to application, de-energize electrical equipment. After application allow time for oil to evaporate before starting motors or placing switches in the 'on' position.

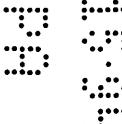
Do not allow spray to contact food, feedstuffs, or water supplies. Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product. Remove pets and cover fish bowls (tanks) before spraying. Do not introduce the sgray into the air or allow the spray to contact food or food-contacting surfaces.

## Pests Controlled, Mixing Directions and Special Notes:

PYRINEX 4EC 0.25% or the 0.5% spray can be used for all pests listed below

- . Ants /1
- . Cockroaches
- . Confused Flour Beetle
- . Crickets





- . Earwigs
- . Firebrats
- . Indian Meal Moth
- . Mediterranean Flour Moth
- . Millipedes
- . Red Flour Beetles
- . Rice Weevils
- . Saw-toothed Grain Beetles
- . Silverfish
- . Spiders

Use only PYRINEX 4EC 0.5% Spray for the following:

- . Brown Dog Ticks /2
- . Carpet Beetles /3
- . Clover Mites

Notes: General - Use the 0.25% rate to control light infestations and the 0.5% to quickly reduce heavy infestations or for extended residual control.

- /1. For ants apply to ant trails and around doors and windows and wherever else the pest may find entrance.
- /2. For the control of Brown Dog Ticks, thoroughly apply the spray as a spot treatment to infested areas, such a pet beds and resting quarters; nearby cracks and crevices; along baseboards, windows and door frames, and localized areas of floor and floor coverings where these pests may be present. Old bedding should be removed and replaced with clean, fresh bedding after treatment. Do not treat pets with this product.
- /3. For control of carpet beetles, thoroughly apply the spray as a spot treatment along baseboards and edges of carpeting, rugs and furniture, in closets and on shelving, and wherever else these insects are seen or suspected.

## **Mixing Directions:**

# Water-based Spray

- . For 0.25% Spray Mix 2/3 fluid ounce or 20 ml of PYRINEX 4EC per gallon.
- . For 0.5% Spray Mix 1 1/3 fluid ounce or 40 ml of PYRINEX 4EC per gallon.

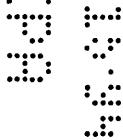
#### Oil-based Spray

- For 0.25% Spray Mix 1/2 fluid ounce or 15 ml of PYRINEX 4EC per gallon.
- For 0.5% Spray Mix 1.0 fluid ounce or 30 ml of PYRINEX 4EC per gallon.

# TURF and OTHER OUTDOOR USES

Use PYRINEX 4EC to control the pests listed in the following table by applying at the recommended dosages and in accordance with the directions given below. Dilute PYRINEX 4EC in water and apply as a coarse, low-pressure spray using suitable application equipment. Thoroughly water, immediately after treatment to wash the insecticide into the turf, except as noted, of the lawn should be moist at time of treatment. Spray when pests first appears refrect as needed.





Peets*		NEX 4EC in Water fake:	Specific Directions	
	1 gel.	100 gals.		
Ticks (Such as: American dog, Cattle fever, 3ulf coast, Ione stari (1)	1/4 ft. az.	1 1/2 pt.	1. For control of ticks infesting corrals, stockyards, holding pens and other outdoor livestock areas. Treat soil in correls and pens, especially in corners, under and around fences, grassy areas, protected areas under feeders and shelters and other areas likely to serve as herborage sites for ticks that have removed themselves from their host. Spray surfaces to be treated until wet, but do not create excessive runoff.  NOTE: This application is intended as a premise apray only. Do not use as a direct spray on livestock. Take care to avoid creating mist or drift which may come into contact with feed, water or livestock. Livestock should not be allowed in treated areas until apray deposits have dried.	
	Amount of PY	RINEX 4EC per		
Pest*	1000 sq. ft.	acre	Specific Directions	
Ants (including foraging fireants) Armyworms ( Such as Beet, Fall, Yellowstriped) Centipedes Chiggers (1) Chinch bugs Clover mites Cutworms Crickets Earwigs Fiery Skipper Fireants (mounds) (2) Fleas Grasshoppers Greenbugs June beetles Leefhoppers Lucerne moths Millipedes Wites (Such es: Clover, Formula grass, Winter grain) Sod webworms (4) (lawn moths) Sowbugs Springtails Ficks (1)	3/4 fl. oz.	1 qt.	1. Use PYRINEX 4EC insecticide for area control of Ticks and Chiggers infesting non-cropland areas such as roadsides, footpaths, and trails, picnic and camping sites, parks and other recreational areas where these pasts are present and create a nuisance or a possible public health problem.—Apply PYRINEX 4EC in water at the rate of 1/2 pint per acre (equivalent to 1/2 fl.oz. per 2,700 sq. ft.) using a hydraulic sprayer, mist applicator, knapsack sprayer, or other suitable hand-or power-operated apray equipment. Treat low underbrush, greesy areas, weeds, and ground surface and debris using enough spray volume to obtain thorough covarage, usually 40 to 100 gallons per acre.  2. For individual fireant mounds, apply PYRINEX 4EC as a drench, diluted at the rate of 1 fl. oz. (30 mil) per 4 gallons of water. Gently aprinkle a total of 1 gallon of the diluted emulsion over the surface of each mound using a gentle apray (such as a aprinkler can). Thoroughly wet mound and surrounding areas to a 4 ft. diameter (12 sq. ft.). For best results, apply in cool weether., 65-80 degrees F, or in early morning or late evening hours. Treet new mounds as they appear. Pressurized sprays may disturb the ents and cause migration, reducing product effectiveness.  3. For sod webworms delay watering and mowing the treated area for 12 to 24 hours after treatment.	
European crane fly	1 fi. oz.	1 1/2 gt.	•	
Turfgrass weevil (Hyperodes) (1)	1 1/2 fl. oz	2 qt.	Spray suspected problem areas in mid-Appland again in mid-May or a Treditinfunded by your Local Agricultural Enganeira Service specialist.	

White grubs ( Such as: Black turfgress atsenius, Europeen chefer, Southern masked chefer and Jepanese beetle lervae) (1)	1 1/2 to 3 fl. oz.	2 cpt. to 1 gal.	For white grubs, sprey when grubs are young and actively feeding near the soil surface, usually during late July and August or as recommended by your local Agricultural Extension Service specialist. Immediately after spraying, irrigate the treated area with 1/2 to 1 inch of water to wash the insecticide into the underlying soil.
Shie grass billbugs (1)	3/4 to 3 fl. oz.	1 qt. to 1 <b>gal</b> .	For bluegrass billbugs apray early in the accoon when adults first appear. Retreet as needed.

<sup>\*</sup> Numbers in parentheses refer to Specific Directions.

#### PEST CONTROL ON OUTSIDE SURFACES AND AROUND BUILDINGS

Apply PYRINEX 4EC as a residual spray to outside surfaces of buildings including porches, window frames, eaves, patios, garages, refuse dumps and other areas where pests congregate or have been seen. Repeat treatment as needed to maintain effectiveness.

Pest*	Amount of Make:	PYRINEX 4EC i	Specific Directions			
	1 gal.	10 gal.	50 gal.			
Ants Bees Carpenter ants Clover mites	For	r Band Treatme	To help prevent infestation of buildings treet a band of soil 6 to 10 feet wide around and adjacent to buildings, also the building foundation to a height of 2 to 3 feet, where			
Cockroaches Crickets Earwigs Fleas	1/12 fl. oz.	3/4 fl. oz.	4 fl. oz.	pests are active and may find entrance. Use fluid ounces of PYRINEX 4EC per 50 gallons water and apply as a coarse spray at the rat of about 10 gallons apray mixture per 1,000 ag. ft. to thoroughly and uniformly wat the		
Millipedes Millipedes Scorpions (2) Silverlish Sowbuss	F	or Outside Surf	bend area.  2. For scorpions treat or remove scoumulations of lumber, firewood, and other materials which serve as insect herborage			
Sowiuga Spicka Ticka Waspa Yallowiackets	1 1/3 ff.oz.	13 1/3 fl. oz.	2 qt.	sites.		

<sup>\*</sup> Numbers in parentheses refer to Specific Directions.

## **ORNAMENTALS (Soil Treatment)**

Use PYRINEX 4EC insecticide to treat potted, containerized, and balled and burlapped nursery stock to control the insect in the soil attached to the roots of these plants. Completely submerge the ball of soil in a tank containing diluted PYRINEX 4EC insecticide. Do not remove burlap wrap or plastic containers with drain holes prior to submerging. Keep soil submerged until complete saturation has occurred, normally about 30 seconds. Note: Wear chemically resistant gloves, boots, and apron during this operation. Application should be made in a well-ventilated area. Note: Environmental factors significantly affect phytotoxicity. PYRINEX 4EC has been tested on numerous ornamental plants without causing serious phytotoxicity. However, because of the numerous varieties grown, it is recommended that a small group of plants be treated at the recommended rate under the anticipated growing conditions and observed for phytotoxic symptoms





Note: Environmental factors significantly affect phytotoxicity. PYRINEX 4EC has been tested on numerous ornamental plants without causing serious phytotoxicity. However, because of the numerous varieties grown, it is recommended that a small group of plants be treated at the recommended rate under the anticipated growing conditions and observed for phytotoxic symptoms for at least 7 days, before a large number of plants are treated.

Pests*		NEX 4EC in Water Aake:	Specific Directions	
	1 gel.	100 gals.		
Fireents (1)	1/4 ff. az	4 ft. oz.	An alternate treatment to submerging ported plants is to dilute 4 oz. of PYRINEX 4EC Insecticide in 100 gals. of water. This dilution should be applied to the point of runoff on a twice-daily schedule for three consecutive days. Do not remove burlap wrap or container from plants prior to treatment.	
Grubs Weevils	2/3 fl. oz.	2 qr.		

<sup>\*</sup>Numbers in parentheses refer to Specific Directions.

# **ORNAMENTALS (Outdoor and Nursery)**

Use PYRINEX 4EC insecticide to treat flowers, shrubs, evergreens, vines, shade and flowering trees found to be infested with pests listed in the following table. Dilute PYRINEX 4EC with water according to directions given in the table and apply using suitable hand-or power-operated spray equipment in a manner to provide complete and uniform coverage. For best results apply a coarse spray to thoroughly wet both upper and lower leaf surfaces and infested limb and trunk areas. Attempt to penetrate dense foliage but avoid overspraying to the point of excessive runoff. Treat when pests appear and repeat at 7 to 10 day intervals, if needed.

Consult your State Agricultural Experiment Station or Extension Service specialist for application timing and other specific use information.

Note: Ornamentals: Environmental factors have significant effects on phytotoxic expression. PYRINEX 4EC has been tested on numerous ornamental plants without causing serious phytotoxicity. However, do not use on azaleas, camellias, poinsettias, rose bushes, or variegated ivy because of possible injury to these plants.

Pest	Amount of PYRINEX 4EC in Water to Make:			Specific Directions		•
	1 gai	3 gals.	100 gal.			•••
						:
					•••••	•:.•
			8		•••••	•
			-			

Adelgids (Such as: Cooley and Eastern spruce gells, Pine berk)	1/12 ff. oz.	1/4 fl. oz.	8 fl. oz.	For begworms treet when insects are in the crawler stage.
•		į		
Ants (including foraging fire ants)		ł		2. For effective control of
Aphids (Such as :				leafrollers apray should be applied before leaves are
Apple,Chrysenthemum,		1		tightly rolled.
Cottonwood, Elm leaf,			ł	3. For effective control of
Peach, Rose, Spires, Woolly)			1	maple leefcutter on maple
Armyworms (Such as: Fall,	i	1	1	trees apply spray to larvee
Yellowstriped)			1	as cases are being formed.
Bagworms(1)			1	Do not treat suger maple
Boxelder bugs			1	trees.
Cankerworms				4. For effective control of
Catalpha sphinx			l l	spider mites when large
Chiggers			<u> </u>	numbers of eggs are
Citrus mealybugs				present, apply a second
Cockrosches (Such as:			•	apray 3 to 5 days in the
American, Brownbanded,				South or 7 to 10 days in the
German, Oriental, Smokey		i	1	North after initial treatment
brown)		1	1	to control newly-hatched
Em spanworms				nymphs.
Fall webworms			1	
Grasshoppers				Į.
Green fruitworms				
Hornworms				•
Jackpine budworms				
Juniper webworms		I		l l
Katydida				
Lace bugs				
Leathoppers		ĺ		i
Leafrollers(2)				
Maple leefcutters(3)				
Mitas (Such as: Clover, Red apider, Southern red)(4)				i
Oleander caterpillars				l l
•				
Orange tortrix Periodical cicada		1	1	i
Plant buos				j
Poplar tentmaker				l l
Psyllids				i
Pus, reterpillers				i i
Rose cha. "1				i
Sawflies, exposed (Such as:				
Pine, Pin oak, Redheededt	ł			
Sowbugs				
Spittlebugs			I	
Spring elm caterpillars			1	
Springteils			1	
Spruce budworms		1	1	
Tent caterpillers (Such as:		1	1	
Eastern, Forest, Western)	1	1	1	
Thornbug	]	1	1	
Walnut caterpillars		1	1	
Western spruce budworms		1	1	
Whitefiles		1	1	
Vollagensaked seeses:		1		I



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Armyworms (Beet) Beeties (Fuller rose, Native elm berki(1) Cutworms Lasfroppers Mahogany webworms Melybugs Mirnosa webworms Moths (Such as: Browntail, Cypress tip, Douglas fir tuesock, European pine ahoox, Gypsfy(2), Holly bud, Nantucket pine tip, Pandors, Pitch pine tip, Subtropical pine tip, Tuesock) Oakworms (Such as: Californie, Orangestriped, Redhumped) Redhumped caterpiller Thrips (exposed) Weevils (Such as: Blackvine(3) Yellow Poplar, Pine reproduction)	1/4 ft. oz.	1/2 fl. ez.	1 pt.	1. To reduce twig and branch feeding by bark beetles applications should be made in the apring or early summer. 2. To kill migrating and invading gypey moth lervae treat trunks and folioge. 3. Electvine weavils are night feeders. Late afterneon apraying will give control in some areas.
Bestles (Such as: Cottonwood leaf(1), Elm eaf, Flee, Willow leaf	1/6 to 1/3 fl. oz.	1/2 to 1 ft. oz.	1 pt. to 1 qt.	For cottonwood leaf beetles use Pyrinex 4EC in water to control larvae and adults infesting cottonwoods. Make the treatment when field counts indicate damaging beetle populations are developing or present.
Borers(1): Clearwing moths Such as: Ash, Dogwood, Lesser peachtree, Lilac, Oak, Moddendron), Metallic wood (Such as: Bronze sirch, Flathesded appletree, Fwolined chestnut), Longhorned beetles (Such les: Locust, fled oak) Lesfminers Needleminers (Such as: Letfrey pine, Lodgepole pine, Spruce) Scale crawlers (Such as: Cottoncuehion, Cottony maple, Euonymus, Fletcher, Florida wax, Golden oak, Hemispherical, Lecanium, Magnolia, Oak kernnes, Dystershell, Pine needle, San Jose, Tee, White birch)	1/3 ft. oz.	1 fl. oz.	1 qt.	For borers, apply Pyrines     4EC to the trunks and lower limbs of trees and shrubs when the adults begin to     emerge. Consult your State Agricultural Experiment Station or Extension Service specialist for proper time to treet. Apply uniformly as a     coarse low-pressure apray.
Borers (Such as: Cottonwood, Peachtree)(1)	1 ff. oz.	3 ff. oz.	3 qt.	For peachtree borers apply Pyrinex 4EC in water to flowering trees and shrubs of the genus Prunus as a trunk spray before newly-hatched larvae enter the trees.



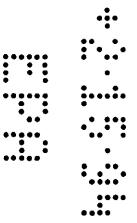


Beetlee (Such as: Ambroela, Anobildee, Black turpentine, Cottonwood leef, Elm leef, Europeen eim bark, Flee, Fuller rose, Japenese, June, Native eim bark, Southern pine, Willow leef)(1)	2 2/3 ft. oz.	<b>8</b> fl. oz.	2 gel.	1. For preventive treatment apply the apray to the main trunk of trees in the early spring or when threat of estack exists from nearby infested trees.  For remedial treatment apply the apray to the main trunk of infested trees when damage occurs but before adult besties begin to amerge.
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# TREE AND FOREST PESTS (Nurseries, Plantations, and Felled Trees)

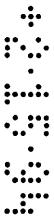
Use PYRINEX 4EC insecticide to treat shade and flowering trees, plantations trees, transplant trees, and evergreens found to be infested with pests listed in the following table. Felled trees, such as elm3, should be treated as necessary. Dilute PYRINEX 4EC with water according to directions given in the table and apply using suitable hand- or power-operated spray equipment in a manner to provide complete and uniform coverage. For best results apply a coarse spray to thoroughly wet both upper and lower leaf surfaces and to infested limb and trunk areas. Attempt to penetrate dense foliage but avoid overspraying to the point of excessive runoff. Attention: For felled trees, treat after cutting. Do not treat bearing fruit and nut trees with PYRINEX 4EC. Treat when pests appear and repeat at 7 to 10 day intervals, if needed. Consult your State Agricultural Experiment Station or Extension Service specialist for application timing and other specific use information.

Pests*	Amount of	PYRINEX 4EC Make:	Specific Directions	
	1 gal.	3 gals.	100 gals.	



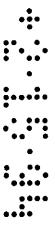
Adelgids (Such as : Cooley and Eastern apruce gell, Pine bark)	1/12 fl. oz.	1/4 fl. oz.	8 ff. qz.	For begworms treat when insects are in the crawler stage.
Aphide (such as : Apple, Chrysanthemum, Cottonwood, Emisel, Peach, Rose, Spiree, Wooly)				For effective control of leafroller spray should be applied before leaves are tightly rolled.
Bagworms (1)				
boxelder bugs			ł	3. For maple leafcutter on maple
Cankarworms				trees apply spray to larvae as cases
Catalpa sphinx Citrus meelybugs				are being formed. Do not treat sugar maple trees intended for
Em spanworma				made syrup production.
Fall webworms			1	
Greenstriped mapleworms			Ĭ	4. For effective control of spider
Jackpine budworms			:	mittes when large numbers of eggs
Juniper webworms				are present, apply a second apray
Katydide Lace bugs				after 3 to 5 days in the south or 7 to 10 days in the North after initial
Lesthoppers				treetment to control newly-hatched
Leafrollers (2)				nymphs.
Maple leafcutters 93)			ł	
Mites (Such as: Clover, Red spider,	i		ŀ	1
Souther red) (4)			•	1
Oak skeletonizers Popier tentmakers			l	
Pusa caternillera			l	1
Sawflies, exposed (Such as: Pine,		•		
Pin Oak)				
Spring eim caterpillars				
Spruce budworms				
Tent caterpillars (Such as: Eastern, Forest , Western)				
Walnut caterpillars			1	
Western apruce budworms		1	1	
Yellownecked ceterpillars			<u></u>	<u> </u>
Beetles (Fuller ross, Native alm	1/6 fl. oz.	1/2 fl. oz.	1 pt.	1. To reduce twig and branch
berki(1)				feeding by bank beetles,
Leefhoppers Mahogany webworms				applications should be made in the spring or early summer.
Mestybuse				spring or early scinnica.
Mimosa webworms	Î			2. To kill migrating and invading
Moths (Such as: Browntail, Cypress				gypsy moth larvae treat trunk and
tip, douglas fir tussock, European				foliage.
pine shoot , Gypsy (2), Holly bud,				3 Plantados mascallo sus alaba
Nantucket pine tip, Pandora, Pitch pine tip, Subtropical pine tip,				3. Blackvine weevils are night feeders. Late afternoon spraying
Tussock)			ļ	will give control in some areas.
Oakworms (Such as: California,				
Orangestriped, Redhumpedi				
Redhumped caterpillars		i		
Thrips (exposed) Weavils (Such as Blackvine (3),			]	
Yellow poplar, Pine reproduction)		L	L	
Beetles (Such as: Cottonwood leef	1/6 to	1/2 to	1 pt. to	1. For cottonwood leaf beeties use
(1) Elm leef, Flee, Widow leef)	1/2 fl.oz.	1 fl. oz.	1 qt.	PYRINEX 4EC in water to control
	1			larvae and adults infesting
				cottonwoods. Make the treatment
			l	when field counts indicate
		l		demaging bestle populations are developing or present. For
				seedlings use 8 o 20 gellons of
	1	I	I	spray volume per acre.





Borers (1): Clearwing moths (Such as: Ash, dogwood, Lesser peachtree, Lilec, Oak, Phododendron.), Metallic wood (Such as: Bronze birch, Fletheaded appletree, Two fined chestnut), Longhorned beetles (Such as: Locust, Red oak) Cranberry girdler larvae (2) Lastminers Needleminers (Buch as: Jeffrey pine, Lodgepole pine, Spruce) Scale crawlers (Such as: Cottonymaple, Euonymus, Fletcher, Florida wss, Golden oak, Hemiepherical, Lecanium, Magnolia, Oak kermes, Oystershell, Pine needle, Sen Jose, Tee, White birch)	1/3 fl. oz.	1 ff. oz.	1 qt.	1. For borers apply PYRINEX 4EC to the trunks and lower limbs of trees and shrubs when the adults begin to emerge. Consult your local State Agricultural Experimental Station or Extension Service specialist for proper time to treat. Apply uniformly as a coerse low-pressure sprey.  2. For crantserry girdler larves infesting Douglas fir seedlings apply 1 quart of PYRINEX 4EC per acre. Direct sprey at the lower crown and stams using 50 gallons of water per acre. Irrigate immediately after application for soil penetration of 1-2 inches, teet after egg laying during the summer.
Borers (Such as: Cottonwood, Peachtree) (1)	1 ff. oz.	3 ff. az.	3 qt	1. For peach tree borers apply PYRINEX 4EC in water to flowering trees and shrubs of the genus Prunus as a trunk spray before newly-hatched larvae enter the trees. Apply as a coarse low-pressure spray. Thoroughly wet all bark areas from ground level to scaffold limbs.
Beetles (1) (Such as: Cottonwood leaf, Elm leaf, Flea, Fuller rose. Native elm bark(2), Willow leaf)	1 1/3 ft. az.	4 ft. oz.	1 gal.	1. For preventive treatment apply the spray to the main trunk of trees in the early spring or when threat of attack exists from nearby infested trees. For remedial treatment apply the spray to the main trunk of infested trees or logs when demage accurs but before adult bestles begin to emerge. For plantation trees apply to individual trees using suitable hand- or power-operated spray equipment.  2. To prevent native elm bark bestles from overwintering in uninfested trees, apply PYRIMEX 4EC in water to the bottom 9 feet of the trunk. Wet the trunk thoroughly but do not spray to runoff. Care should be taken to apply the spray right to the base of the root flare. Application can be made with either a beckpeck mistblower or a hydraulic pressure sprayer from spring through to early fall. To reduce the twig and branch feeding on uninfested trees deemed to be of high value, apply a weter spray to the tree crown.  Application should be made in the spring or early summer using a





Beetles (Such es: Ambroeie, Anobidee, Black Turpentine, Bitster, European elm berk, Japanese, June, Southern pine, Spruce)(1) Carpenter ants Termites	2 2/3 fl. oz.	8 ft. oz.	2 gel.	For preventive treatment apply the agray to the main trunk of trees in the early spring or when threat of strack exists from nearby infested trees. For remedial treatment apply the agray to the main trunk of infested trees or logs when demage occurs or before adult beetles begin to amerge. For plentation trees apply to individual trees using suitable hand- or power-operated spray equipment.
Weevils (Such as : Northern pine, Pales, Pitch-eating, Twig) (1)	5 1/3 fl. oz.	1 pt.	4 gal.	For southern pine seedlings treat immediately after transplanting.     Treat each seedling with enough spray to thoroughly wet the foliage and stems to the point of runoff but do not use more than 6 gallons of spray dilution per acre.

<sup>\*</sup> Numbers in parentheses refer to Specific Directions.

## STORAGE AND DISPOSAL

STORAGE: Avoid storage at high temperatures. Protect from moisture. Avoid contamination with water, acids, or alkalies. Do not store near heat or open flame. Keep container closed. Store in original container in a locked storage area.

**PROHIBITIONS:** Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

**PESTICIDE DISPOSAL:** Rinse spray equipment. Any pesticide, spray mixture, or rinse water that cannot be used according to label instructions or chemically reprocessed should be disposed of in a landfill approved for pesticides.

CONTAINER DISPOSAL: Triple rinse (or equivalent), perforate rinsed containers and offer for disposal in a landfill approved for pesticide containers. Do not reuse containers. Do not cut or weld container.

GENERAL: Consult Federal, state, or local disposal authorities for approved alternative procedures.

#### WARRANTY STATEMENT

ver. 26 January 1994

