
 <p>U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505C) 401 "M" St., S.W. Washington, D.C. 20460</p> <p>NOTICE OF PESTICIDE: <u>  x  </u> Registration <u>      </u> Reregistration</p> <p>(under FIFRA, as amended)</p>	EPA Reg. Number: 275-94	Date of Issuance: OCT 7 1996
	Term of Issuance: Conditional	
	Name of Pesticide Product: XenTari AS Biological Insecticide	
Name and Address of Registrant (include ZIP Code): Abbott Laboratories Chemical & Agricultural Products Division D-28R, Bldg. A-1 1401 Sheridan Road North Chicago, IL 60064		
<p>Note: Changes in labeling 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 EPA registration number.</p> <p>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.</p> <p>Registration is in no way to be construed as an endorsement or recommendation of this product by the 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.</p> <p>This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:</p> <ol style="list-style-type: none"> <li>1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data.</li> <li>2. Make the following label change: <ul style="list-style-type: none"> <li>- Revise the EPA Registration Number to read, "EPA Reg. No. "275-94".</li> </ul> </li> <li>3. Submit a storage stability study within 15 months as agreed to in your letter dated 8/7/96.</li> <li>4. Submit five (5) copies of the revised final printed label for the record.</li> </ol> <p>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.</p> <p>A stamped copy of the label is enclosed for your records.</p>		
Signature of Approving Official: 	Date: OCT 7 1996	

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XenTari AS  
BIOLOGICAL INSECTICIDE

AQUEOUS SUSPENSION  
BIOLOGICAL INSECTICIDE

Active Ingredient:

Bacillus thuringiensis, subsp. aizawai	
Lepidopteran active toxin(s).....	1.0% w/w
Inert Ingredients.....	99.0% w/w
Total:.....	100.0% w/w

Potency: 2,500 International Units per mg of product or 1.13 billion International Units per pound of product.

Potency units should not be used to adjust use rates beyond those specified in the Directions For Use Section.

KEEP OUT OF REACH OF CHILDREN.

WARNING  
AVISO

Si usted no entiende la etiqueta, busque a alguien 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).

EPA Registration No. 275-  
EPA Est. No. 33762-IA-1  
Patent Pending

Net Contents: 2.5 gallons

ACCEPTED  
with COMMENTS  
in EPA Letter Dated  
OCT 7 1996  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
275-17

96 AUG -8 P4:07

RECD EPA/OPP/DPD1

STATEMENT OF PRACTICAL TREATMENT

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)**

Harmful if inhaled. Causes substantial, but temporary eye injury. Do not get in eyes, on skin, or on clothing. Avoid breathing spray mist.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Waterproof gloves.
- Shoes plus socks.
- Protective eyewear.

Handlers who may be exposed to the dilute through application or other tasks must wear:

- Long-sleeved shirt and long pants.
- Waterproof gloves.
- Shoes plus socks.
- Protective eyewear.

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.

**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 PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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## ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

The toxicity of this product to the predatory wasp *Trichogramma pretiosum* is not known.

This product is toxic to the green lacewing and the predatory mite *Metaseiulus occidentalis*.

This product is highly toxic to honey bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

## 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 Tribe, consult the agency responsible for pesticide regulation.

**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 intervals. 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 48 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.
- Shoes plus socks.
- 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.

Keep unprotected persons out of treated areas until sprays have dried.

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal.

Storage: Reclose containers of unused XenTari AS. Store in a dry, cool place inaccessible to children and out of sunlight.

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**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:**

**Plastic Bottle:** 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.

**Metal can:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**DIRECTIONS FOR USE**

Do not apply this product through any type of irrigation system.

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

**Days to Harvest:** There are no restrictions on applying XenTari AS up to the time of harvest. Individual state regulations may vary and should be consulted for allowable pre-harvest application intervals.

**Sites:** XenTari AS may be used for any labeled pest in both field and greenhouse use.

XenTari AS is an insecticide for use against listed caterpillars (larvae) of lepidopterous insects. Close scouting and early attention to infestations is highly recommended. Larvae must eat deposits of XenTari AS to be affected. Always follow these directions:

- Treat when larvae are young (early instars) before the crop is damaged.
- Larvae must be actively feeding on treated, exposed plant surfaces.
- Thorough spray coverage is needed to provide a uniform deposit of XenTari AS at the site of larval feeding. Use overhead and drop nozzles to obtain good spray coverage on both sides of foliage. Use sufficient spray volume to insure uniform deposition on all plant surfaces.
- Under heavy pest population pressure, use the higher label rates, shorten the spray interval, and/or raise spray volume to improve spray coverage.

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- Repeat applications at an interval sufficient to maintain control, usually 3 to 14 days depending on plant growth rate, moth activity, rainfall after treating, and other factors. If attempting to control a pest with a single spray, make the treatment when egg hatch is predominately complete, but before crop damage occurs.
- A spreader-sticker which has been approved for use on growing and harvested crops should be added for hard-to-wet crops such as cabbage, or to improve weather-fastness of the spray deposits.
- XenTari AS may be tank mixed with other labeled insecticides to enhance control. Use of the resulting tank mix must be in accordance with the more restrictive label limitations and precautions. No dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. Before tank mixing XenTari AS with other labeled products, including spreader stickers, check for tank mix compatibility.
- XenTari AS is a non-restricted use pesticide and does not require a restricted use permit for purchase and use.

After ingesting a lethal dose of XenTari AS, larvae stop feeding within the hour, and will die within several hours to 3 days. Mortality varies with larval size (instar), lepidopteran species, and dose consumed. Following ingestion, larvae become sluggish, discolor, then shrivel, blacken and die. Smaller larvae die more quickly.

XenTari AS may be applied in conventional ground or aerial equipment (unless the application rate table allows ground application only) with quantities of water sufficient to provide uniform coverage of infested plant parts. The volume of water needed per acre will depend on crop development, relative humidity, spray equipment, and local practices. Usually, selection of moderate to high spray volume will provide the best results in most equipment. For optimal results, use at least 3 gallons of water per acre by air; except in arid areas, where 5 to 10 gallons are required. Add water to the mix tank and provide moderate agitation. While agitating, add the required amount of XenTari AS. Continue agitation, and add other spray materials, if any. Add remaining water, if any, and agitate until fully mixed. Maintain the suspension with moderate agitation while loading and spraying. Do not mix more XenTari AS than can be used in a 3 day period.

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For Smaller Spray Volumes:

If Rate is

- 1 pt./acre or 100 gals.
- 2 pt./acre or 100 gals.
- 4 pt./acre or 100 gals.
- 8 pt./acre or 100 gals.

Use This Amount  
Per Gallon

- 1 tsp. or 1/6 fluid oz.
- 2 tsp. or 1/3 fluid oz.
- 4 tsp. or 2/3 fluid oz.
- 8 tsp. or 1 1/3 fluid oz.



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APPLICATION RATE

Crop Group (Miscellaneous)	Pests	Pints/acre
Alfalfa (Hay and Seed), Hay and Other Forage Crops	Loopers	1 - 4
	Alfalfa Caterpillar	1 - 4
	European Skipper (Essex Skipper)	1 - 4
	Armyworms	1 - 8
Berries and Small Fruit such as Grape, Strawberry and Blackberry	Grapeleaf Skeletonizer (ground only)	1 - 4
	Grape Leafroller	1 - 4
	Achema Sphinx Moth (Hornworm)	1 - 4
	Saltmarsh Caterpillar (ground only)	1 - 4
	Omnivorous Leafroller (ground only)	1 - 4
	Loopers	1 - 4
	Orange Tortrix	1 - 4
	Oblique Banded Leafroller	1 - 4
	Armyworms	1 - 4
	Tobacco Budworm	1 - 8
	Grape Berry Moth	1 - 8
	Melonworms	1 - 4
	Cutworms	1 - 4
Bulb such as Garlic and Onion (green and bulb)	Loopers	1 - 4
	Omnivorous Leafroller	1 - 4
	Hornworms	1/2 - 4
	Imported Cabbageworm	1/2 - 4
	Diamondback Moth <sup>1</sup>	1/2 - 4
	Green Cloverworm	1 - 4
	Webworm	1 - 4
	Saltmarsh Caterpillar	1 - 4
	Armyworms	1 - 8
	Cutworms	1 - 4
	Cross-striped Cabbageworm	1 - 4
Heliothis	1 - 8	

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APPLICATION RATE (Continued)

Crop Group (Miscellaneous)	Pest	Pints/Acre
Curcubit Vegetables such as Melons, Cucumber and Squash	Loopers	1 - 4
	Melonworms	1 - 4
	Rindworm complex	1 - 4
	Armyworms	1 - 8
Flowers, Bedding Plants and Ornamentals (Ground application only)	Loopers	1/2 - 4
	Tobacco Budworm	1/2 - 4
	Omnivorous Looper	1/2 - 4
	Omnivorous Leafroller	1/2 - 4
	Diamondback Moth <sup>1</sup>	1/2 - 4
	Armyworms	2 - 8
	Ello Moth (Hornworm)	1/2 - 4
	Io Moth	1/2 - 4
	Oleander Moth	1/2 - 4
Azalea Caterpillar	1/2 - 4	
Fruiting Vegetables such as Tomato, Bell Pepper and Eggplant	Loopers	1 - 4
	Hornworm	1/2 - 4
	Tomato Fruitworm	1 - 4
	Variegated Cutworm	1 - 4
	Saltmarsh Caterpillar	1 - 4
	Armyworms	1 - 8
Greenhouse/Shadehouse and Outdoor Nursery Crops such as Leafy Herbs, Brassica and Fruiting groups	Loopers	1 - 4
	Heliothis	1 - 8
Herbs, Spices and Mints such as Basil, Chives, Dill, Leek and Peppermint	Looper	1 - 4
	Saltmarsh Caterpillar	1 - 4
	Armyworms	1 - 8

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APPLICATION RATE (Continued)

Crop Group (Miscellaneous)	Pests	Pints/Acre
Leafy and Cole Crops such as Lettuce (head and leaf), Kale, Celery, Spinach, Broccoli, Cabbage, Mustard Greens, Brussels Sprout, Cauliflower, Collards, Chinese Cabbage, Endive Kohlrabi and Parsley	Loopers	1 - 4
	Omnivorous Leafroller	1 - 4
	Hornworms	1/2 - 4
	Imported Cabbageworm	1/2 - 4
	Diamondback Moth <sup>1</sup>	1/2 - 4
	Green Cloverworm	1 - 4
	Webworm	1 - 4
	Saltmarsh Caterpillar	1 - 4
	Armyworms	1 - 8
	Cutworms	1 - 4
	Cross-striped Cabbageworm	1 - 4
Heliothis	1 - 8	
Legume Vegetables such as Beans, Peas, Lentil and Soybean	Loopers	1 - 4
	Soybean Looper	1 - 4
	Green Cloverworm	1 - 4
	Velvetbean Caterpillar	1/2 - 4
	Armyworms	1 - 8
Root and Tuber such as Carrot, Potato, Garden Beet and Sugarbeet	Podworms	1 - 4
	Loopers	1 - 4
	Omnivorous Leafroller	1 - 4
	Hornworms	1/2 - 4
	Imported Cabbageworm	1/2 - 4
	Diamondback Moth <sup>1</sup>	1/2 - 4
	Green Cloverworm	1 - 4
	Webworm	1 - 4
	Saltmarsh Caterpillar	1 - 4
	Armyworms	1 - 8
Cutworms	1 - 4	
Cross-striped Cabbageworm	1 - 4	
Heliothis	1 - 8	

APPLICATION RATE (Continued)

Crop Group (Miscellaneous)	Pest	Pints/Acre
Stone Fruit such as Cherries, Plum, Peach, Prune and Nectarine Pome Fruit such as Apple and Pear Tree Nuts such as Almond, Pecan, Walnut and Filbert Pomegranate	Redhumped Caterpillar	1 - 8
	Tent Caterpillars	1 - 8
	Omnivorous Leafroller	1 - 8
	Fall Webworm	1 - 8
	Walnut Caterpillar	1 - 8
	Cankeworms	1 - 8
	Gypsy Moth	1 - 8
	Variegated Leafroller	1 - 8
	Redbanded Leafroller	1 - 8
	Tufted Apple Budmoth	1 - 8
	Fruittree Leafroller	1 - 8
	Oriental Fruit Moth	1 - 8
	Cutworms	1 - 8
	Filbert Leafroller	1 - 8
	Obliquebanded Leafroller	1 - 8
	Codling Moth	1 - 8
Armyworms	1 - 8	
Twig Borer	1 - 8	
Small Grains (Ground application only)	Loopers	1 - 4
	Armyworms <sup>1</sup>	1 - 8
Tropical Fruits	Hornworm	1 - 8
	Leafrollers	1 - 8
	Omnivorous Looper	1 - 8
	Loopers	1 - 8

<sup>1</sup>For best results, use a ground applicator, a minimum of 50 gallons total mix per acre, 50-100 psi and 3-7 nozzles per bed.

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APPLICATION RATE

Other Crops:	Pests	Pints/Acre
Asparagus	Armyworms <sup>1</sup>	1 - 8
Avocado	Amorbia Moth Omnivorous Leafroller Omnivorous Looper Orange Tortrix Spanworm	1 - 8 1 - 8 1 - 8 1 - 8 1 - 8
Banana	Banana Skipper	1 - 4
Citrus	Fruittree Leafroller Orangedog Citrus Cutworm <sup>3</sup>	1 - 8 1 - 4 1 - 8
Corn (Sweet and Field and Sorghum)	Armyworms <sup>1</sup> Headworms European Corn Borer	1 - 8 1 - 4 1 - 8
Cotton	Tobacco Budworm <sup>2</sup> Cotton Bollworm <sup>2</sup> Loopers Saltmarsh Caterpillar Armyworms <sup>1</sup>	1 - 8 1 - 8 1 - 4 1 - 4 1 - 8
Hops	Loopers Armyworms <sup>1</sup>	1 - 4 1 - 8
Kiwi Fruit	Omnivorous Leafroller	1 - 8
Malanga	Saltmarsh Caterpillar Armyworms <sup>1</sup>	1 - 4 1 - 8
Peanut	Loopers Velvetbean Caterpillar Green Cloverworm Podworms <sup>1</sup>	1 - 4 1 - 4 1 - 4 1 - 4
Pineapple	Gummosos-Batrachedra comosae (Hodges) Thecla-Thecla basilides (Geyr)	1/2 - 2 1/2 - 2

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### APPLICATION RATE (Continued)

Other Crops	Pests	Pints/Acre
Rape	Looper	1 - 4
	Armyworms <sup>1</sup>	1 - 8
	Heliothis	1 - 8
Safflower	Loopers	1 - 4
	Saltmarsh Caterpillar	1 - 4
	Armyworms <sup>1</sup>	1 - 8
Sunflower (Ground application only)	Loopers	1 - 4
	Head Moth	1 - 4
Tobacco	Tobacco Budworm	1 - 4
	Hornworms	1/2 - 4
	Loopers	1 - 4
Turf	Sod Webworm	2 - 8

<sup>1</sup>XenTari AS may be used to control small armyworms and/or podworms (1st and 2nd instar) when populations are light and full coverage sprays are applied. Repeat treatment as necessary. If mature worms or heavy populations are present a contact insecticide should be used to enhance control.

<sup>2</sup>Use to control light to moderate populations of newly hatched worms in integrated pest management conditions. Repeat treatments at 4 to 5-day intervals as long as necessary and results are acceptable. Use in combination with ovicidal rates of labeled ovicides, for bollworm and tobacco budworm.

<sup>3</sup>Apply to light to moderate populations of newly-hatched worms.

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### APPLICATION RATE

XenTari AS for Trees and Forests<sup>4</sup> (For all states except California)

Crop	Pest	pints/100 gallons <sup>5</sup>
Forest, Shade, Sugar Maple Trees and Ornamentals  (Ground Application Only)	Gypsy Moth	1/2 - 4
	Bagworm	1/2 - 4
	Redhumped Caterpillar	1/2 - 4
	Spring & Fall Cankerworm	1/2 - 4
	Fall Webworm	1/2 - 4
	Elm Spanworm	1/2 - 4
	Tent Caterpillars	1/2 - 4
	California Oakworm	1/2 - 4
	Pine Butterfly	1/2 - 4
	Spruce Budworms	1/2 - 4
	Saddle Prominent Caterpillar	1/2 - 4
	Douglas Fir Tussock Moth	1/2 - 4
	Western Tussock Moth	1/2 - 4
	Fruittree Leafroller	1/2 - 4
	Blackheaded Budworm	1/2 - 4
	Mimosa Webworm	1/2 - 4
	Jack Pine Budworm	1/2 - 4
Saddleback Caterpillar	1/2 - 4	
Greenstriped Mapleworm	1/2 - 4	
Hemlock Looper	1/2 - 4	

<sup>4</sup>Forest, Shade, Sugar Maple Trees and Ornamentals.

<sup>5</sup>Rate for hydraulic sprayer. For mist blowers, mix the applicable amount (pts.) in 10 gallons of water

Note: Inclusion of a suitable spreader-sticker approved for forest insect control is recommended to improve coverage, rain fastness and/or resist wash-off.

#### NOTICE TO BUYER

Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

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