

US ENVIRONMENTAL PROTECTION AGENCY OFFICE OF PESTICIDES PROGRAMS REGISTRATION DIVISION (TS-767) WASHINGTON, DC 20460	EPA REGISTRATION NO. 43382-23	DATE OF ISSUANCE DEC 31 1985
	TERM OF ISSUANCE	
	NAME OF PESTICIDE PRODUCT Futura XLV	

NOTICE OF PESTICIDE: ☒ REGISTRATION
☐ REREGISTRATION
(Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended)

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Biochem Products
100 Rockland Road, Suite G
P.O. Box 264
Montchanin, DE 19710

361/164,559
18/1

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 indorsement 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. 43382-23."
 3. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the 4-79 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.

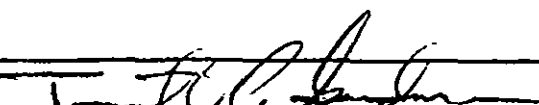
A stamped copy of the label is enclosed for your records.

Note: The Agency strongly discourages the submission of labeling mark-ups, as they are difficult to photograph should the need arise.

Timothy A. Gardner
Product Manager (17)
Insecticide-Rodenticide Branch
Registration Division (TS-767)

Enclosure

☐ ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL 	DATE 12-31-85
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9/3
FUTURA® XLV

ACCEPTED
with COMMENTS
in EPA Letter Dated

DEC 31 1985

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

43382-23

FUT
XLV

DIRECTIONS FOR USE

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

Futura (Bacillus thuringiensis) Flowable Concentrate provides best control when caterpillars are newly hatched (1st or 2nd instar) and most susceptible to the product which must be eaten. Good leaf coverage is essential to achieve effective insect control. Higher rates are generally necessary when infestations are heavy and foliage is dense.

To obtain a suitable mixture with water, pour the recommended amount into a 1/2 filled tank and agitate. Fill tank and maintain agitation until the mixing process is complete. Futura is compatible with various insecticides, fungicides, spreaders, and stickers except those that are highly alkaline in nature. Reagitate if dilute spray is allowed to stand for more than 6 hours.

For most trees, the recommended amount of product may be applied by high pressure hydraulic sprayers in 100 gallons of water per acre. Cover foliage thoroughly, but avoid runoff. Mist blower applications may use 10-20 gallons of water per acre.

Spreaders and stickers improve coverage and are recommended.

For vine, pome, citrus and tropical fruits, use recommended amount per 100 gallons water and apply 100 to 500 gallons of spray dilution per acre.

Aerial application should use recommended rates in up to 10 gallons of water per acre during early morning or evening hours when winds are low. Spray systems which produce a 50-300 micron droplet size are preferable.

For small quantity, use 1.5 teaspoonfuls per gallon of water to provide an application rate of 21 fl. oz./acre in 100 gallons of water.

Note: Because the active ingredient, *Bacillus thuringiensis*, is exempt from tolerance requirements, this product may be applied up to the day of harvest and in storage.

Notice: Local conditions may affect the use of Futura. Consult State Agricultural Extension or Experiment Station Specialists for specific recommendations related to local crop protection problems. Biochem Products makes no warranty, express or implied, including the warranties of commercially acceptable quality and/or fitness for any particular purpose concerning this material, other than those which are contained on this label.

ACTIVE INGREDIENT: *Bacillus thuringiensis* Berliner, var. *thuringiensis* (12,000 International Units per gallon of product)
INERT INGREDIENTS:
* Futura XLV contains 12,000 International Units per gallon of product
it is equivalent to 54.5 billion International Units per gallon of product

CAUTION: KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS
Hazards to Humans: Avoid inhalation or contact with eyes or open wounds.

STORAGE AND DISPOSAL
Storage: Tightly reclose containers of unused Futura. Store in cool place. Activity may be impaired by storage at temperatures above 90°F.
Disposal: Drums can be used for non-food products after thorough cleaning with water. Smaller sized containers should not be reused. Perforate or crush and discard container according to local trash disposal regulations and in a safe place.

10.0 lb./gal.

APPLICATION RATES FOR FUTURA®

Crop..	Pest	Fl. Oz./Acre
Field and Greenhouse vegetables, including:		
Broccoli, Collards,	Armyworms	21-41
Cauliflower, Kale, Lettuce,	Tomato fruitworm/Corn earworm/ Bollworm	21 (every 5-7 days)
Turnips, Turnip greens, Beets,	Variegated cutworm	21
Celery, Mustard greens, Beans,	Salt marsh caterpillar	5-21
Cabbage, Brussels Sprouts, Peas,	Mimosa webworm	5-21
Chinese Cabbage, Sweet Potato,	Tobacco budworm	5-21
Kohlrabi, Endive, Sweet Corn,	Loopers, Melonworm, Pickleworm	5-21
Tomatoes, Peppers, Eggplant,	Diamondback moth	5-16
Escarole, Lentils, Potato,	Imported cabbageworm	5-16
Spinach, Carrots, Cucumbers,	Green cloverworm	5-16
Melons, Squash, Watercress,	Hornworm, Arctia moth, plus moth	5-16
Rapini, Artichokes, T.		
Tobacco	Tobacco budworm	10-21
	Loopers	10-21
	Hornworms	5-16
To control tobacco moth during storage use 2 fluid oz or 4 tablespoonfuls in one gallon water per 400 lbs tobacco uniformly applied as a spray mist to leaf surfaces before bundling or to opened bundles and to walls and floors of storage area.		
Safflower, Sugar beets,	Tobacco budworm/bollworm	5-21
Mints, Peanuts, Alfalfa,	Loopers, Safflower moth	5-21
Soybeans, Sunflowers, Hay,	Salt marsh caterpillar	5-21
Pastures, Small grains,	Velvetbean caterpillar	5-21
Forage crops, Grain Sorghum,	Green cloverworm, Sorghum headworm	5-21
Rice, Wild Rice	Skippers	5-10
	Alfalfa caterpillar	3-5
Turf,	Sod webworm	41-83
Rangeland	Rangeland caterpillar	3-5
Grapes, Blueberries,	Grapeleaf skeletonizer	10-21
Blackberries, Currants,	Loopers, Salt marsh caterpillar	10-21
Raspberries, Hops,	Grape leaf folder/leafrollers	10-21
Strawberries,	Hornworms	5-16
Dewberries		
Cotton	Loopers	10-21
	Tobacco budworm	5-21
	Bollworm	5-21

Apply at first sign of 1st and 2nd instar budworm or bollworm larvae. Use at least 7 gallons total spray with ground equipment or 2-5 gallons/acre with aerial equipment. To continue worm suppression reapply at 3-5 day intervals or use scouting report recommendations.

Futara at 5-21 fl. oz./acre may be tank mixed with methomyl at .225 to .675 lbs. active ingredient (AI)/acre to suppress infestations of early instar larvae.

Crop	Pest	Fl. Oz. / 100 Gallons (2000 Application)	Fl. Oz. / Acre (A/c)
Peaches, Plums,	Gypsy moth	10-24-41 51	21-51
Cherries, Walnuts,	Walnut caterpillar, Loopers	10-21	10-21
Almonds, Pecans,	Leafrollers, Green fruitworm	10-21	10-21
Filberts, Prunes,	Cankerworm	5-15-21	10-21
Apples, Pears,	Tent caterpillars	5-15-21	10-21
Avocados, Kiwis	Redhumped caterpillar	5-15-21	10-21
	Fall webworm	10	10
Forests, Shade trees,	Armyworms	21-41	-
Ornamental plants,	Pine butterfly	21	21
Flowers, Shrubs	Spruce budworm	21-41	21-41
	Western spruce budworm	21-41	21-41
	Douglas fir tussock moth	21-41	21-41
	Diamondback moth	5-21-16	21
	Gypsy moth	10-24-41 51	21-51
	Elm spanworm	10-21	10-21
	Bagworm, Saddled prominent	10-21	10-21
	Saddleback caterpillar, Leafrollers	10-21	10-21
	Loopers, Western tussock moth	10-21	10-21
	Tobacco budworm/Bollworm/ Corn earworm	10-21	10-21
	Io moth, Mimosa webworm	10-21	10-21
	Jack pine budworm	10-21	10-21
	Oleander moth	10-21	10-21
	Fall webworm	10	10
	Tent caterpillars	5-21	5-21
	Redhumped caterpillar	5-21	5-21
	Cankerworms, Oakworms	5-21	5-21
	Hornworms	5-21	5-21

For best control of Gypsy moth, apply when young larvae are present and when leaf expansion is 40-50%. Repeat in 1 to 3 weeks.

For best control of spruce budworm, apply on populations below 35 larvae per 18-inch branch tip and when 50% of the larvae are in the 3rd and 4th instar.

Citrus,	Leafrollers, Hornworms, Loopers	10-21	10-21
Tropical fruits	Orangedog	5-18/10	5-18

Stored Products:
grain legumes,
peanuts, oilseeds,
and other seeds
and grains

Indian meal moth	6.4 quarts/100 gallons
Almond moth	(2.1 fluid oz/gallon)
Mediterranean flour moth	

Continuously agitate spray solution and spray at the rate of ^{four} pints per ten bushels of grain going into storage bins or bags on a conveyor or auger to obtain thorough mixing. Alternately, the top 4-6 inches of grain in a bin may be treated during the bin filling process or after filling with one quart in ten gallons water per 500 square feet surface area and raked in.