73049-427 03/04/2008 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 1/42

Ms. Maria Herrero
Regulatory Affairs Manager
Valent Biosciences Corporation
870 Technology Way, Suite 100
Libertyville, IL 60048

MAR 0 4 2008

Subject: Valent Biosciences Corporation, Foray® 48B
EPA Registration No. 73049-427
Label Amendments to increase the dose rate for cankerworm, change the primary brand name from Foray® 48 SI to Foray® 48B, and add the alternate brand name, Foray® XG
Application Dated 02/28/2008

Dear Ms. Herrero:

The amendment referred to above, submitted in connection with registration under FIFRA section 3(c)(7)(A), is acceptable provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.

2. Submit two (2) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of a final printed label.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions. If you have any questions contact Jeannine Kausch at 703-347-8920 or by email at: kausch.jeannine@epa.gov.

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

Sincerely,

Sheryl Reilly, Ph.D., Chief
Microbial Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511P)

Enclosures

CONCURRENCES

SYMBOL ▶	7511P	7511P	7511P					
SURNAME ▶	KAUSCH	Reynolds	Reilly					
DATE ▶	03/04/2008	3/4/08	3/4/08					

EPA Form 1320-1A (1/90) *Printed on Recycled Paper* **OFFICIAL FILE COPY**

* U.S. Government Printing Office: 2005 206-899 (mac)

FORAY® 48B
BIOLOGICAL INSECTICIDE
FLOWABLE CONCENTRATE

{Alternate Brand Name: Foray® XG}

MASTER LABEL

Sub-label A: Agricultural Use – Aerial and Ground Application

Sub-label B: Commercial Forestry and Wide-Area Pest Treatment Uses - Aerial Application

Sub-label C: Commercial Urban Use – Ground Only

Active Ingredient:

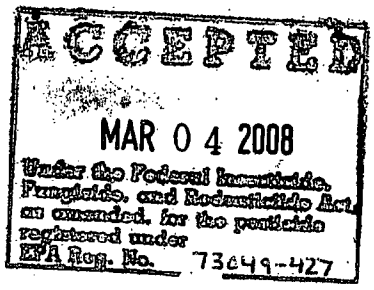
Bacillus thuringiensis subsp. *kurstaki* Strain ABTS-351 fermentation solids, spores, and insecticidal toxins	12.65%
Other Ingredients	87.35%
Total	100.00%

Potency: 10,600 Cabbage Looper Units (CLU) per mg of product (equivalent to 48 billion CLU per gallon)

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Registration No. 73049-427
EPA Est. No. 33762-IA-1

Valent Biosciences Corporation
870 Technology Way, Suite 100
Libertyville, IL 60048



FORAY® 48B
BIOLOGICAL INSECTICIDE
FLOWABLE CONCENTRATE
SUB-LABEL A

For Agricultural Use Only – Aerial and Ground Application

FORAY® 48B
BIOLOGICAL INSECTICIDE
FLOWABLE CONCENTRATE
FOR AGRICULTURAL USE ONLY

For Organic Production

Active Ingredient:

Bacillus thuringiensis subsp. *kurstaki*, Strain ABTS-351, fermentation solids, spores and insecticidal toxins	12.65%
Other Ingredients	87.35%
Total	100.00%

Potency: 10,600 Cabbage Looper Units (CLU) per mg of product (equivalent to 48 billion CLU per gallon).

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

KEEP OUT OF REACH OF CHILDREN

CAUTION

Net Contents:

Valent BioSciences Corporation
870 Technology Way, Suite 100
Libertyville, IL 60048
EPA Registration No. 73049-427
EPA Est. No. 33762-IA-1

Lot No.:

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking chewing gum, using tobacco or using the toilet.

Personal Protective Equipment (PPE)
Applicators and other handlers must wear:

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

Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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:
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.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must provide all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as spill or equipment breakdown.

User Safety Recommendations

Users should:

- Remove clothing/PPE 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.

Environmental Hazards

For Ground Application:
For Terrestrial Uses: 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 cleaning equipment or disposing of equipment washwaters.

No manual application can take place within 300 feet of any threatened or endangered Lepidoptera.

For Aerial Application:
Except under the forest canopy, 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 cleaning equipment or disposing of equipment washwaters.

This product must not be applied aerially within ¼ mile of any habitats of threatened or endangered Lepidoptera.

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 State or Tribal 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. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions For Use section for information about this standard.

Refer to the Directions For Use Booklet attached to this container for further directions.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place. Keep containers tightly closed when not in use. Store in temperatures above freezing and below 32 degrees C (90 degrees F).

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes can not be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Warranty and Disclaimer

To the extent permitted by applicable law, 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.

8/42

DIRECTIONS FOR USE
BOOKLET

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 State or Tribal 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 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
- Shoes plus socks

APPLICATION

Apply Foray 48B undiluted or with quantities of water sufficient to provide thorough coverage of plant parts to be protected, by ground or aerial equipment. The amount of water needed per acre will depend upon crop size, weather, spray equipment, and local experience.

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

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower/treatment coordinator are responsible for considering all of these factors when making decisions.

MIXING

Shake or stir Foray 48B before use. Fill spray or mixing tank half full of water. Begin agitation and pour Foray 48B into water while maintaining continuous agitation. Add other spray material (if any) and balance of water. Agitate as necessary to maintain suspension. Do not allow diluted mixture to remain in the tank for more than 72 hours.

To improve weather-fastness of the spray deposits for hard to wet crops, such as cole crops, use a spreader-sticker approved for use on growing crops. Combinations with commonly used spray tank adjuvants are generally not deleterious to Foray 48B, if the mix is used promptly. Before mixing in the spray tank, identify possible problems with physical compatibility by mixing all components in a small container in proportionate quantities. Check with an adjuvant supplier for advice on spray adjuvants that are compatible with biological pesticides such as Foray 48B to help avoid incompatibilities.

SPRAY VOLUMES

Ground Application: Use amount of Foray 48B, as indicated in the tables that follow, in ground equipment with quantities of water sufficient to provide thorough coverage of plant parts to be protected. The amount of water needed per acre will depend upon crop size, weather conditions, spray equipment used and local experience.

Use an adequate amount of tank mix to obtain thorough coverage without excessive run
off. Use the indicated per acre rates of Foray 48B in up to the following amounts of water:

High volume hydraulic sprayers	100 gallons
Mist blowers	10 gallons

For smaller spray volumes, mix the proper number of teaspoons of Foray 48B from the following chart to attain the desired rates:

If the rate is:	**Add this amount per gallon of mix:**
8 fl. oz (0.5 pts.)/acre	1/2 teaspoon
16 fl. oz.(1.0 pts.)/acre	1 teaspoon
24 fl. oz (1.5 pts.)/acre	1 1/2 teaspoons
32 fl. oz. (2.0 pts.)/acre	2 teaspoons
48 fl. oz. (3.0 pts)./acre	3 teaspoons
64 fl. oz. (4.0 pts.)/acre	4 teaspoons
88 fl. oz (5.5 pts.)/acre	5 1/2 teaspoons

Aerial Application: Use amount of Foray 48B, as indicated in the tables that follow, in aerial equipment undiluted or with quantities of water sufficient to provide thorough coverage of plant parts to be protected. In the western U.S., use a normal minimum of 5-10 gallons per acre; in the eastern regions use a normal minimum of 2-3 gallons per acre. The minimum amount of water needed per acre will depend upon crop size, weather conditions, spray equipment used and local experience.

GENERAL AGRICULTURAL USE INSTRUCTIONS

Foray 48B is a biological insecticide for the control of lepidopterous larvae. It contains the spores and endotoxin crystals of *Bacillus thuringiensis kurstaki*. Foray 48B must be ingested by the larvae to be effective. For consistent control, apply at first sign of newly hatched larvae (1st and 2nd instar larvae). Susceptible larvae that ingest Foray 48B cease feeding within a few hours and die within 2-5 days.

Foray 48B may be applied up to and on the day of harvest.

For maximum effectiveness, follow the instructions listed below:

Monitor fields to detect early infestations.

Apply Foray 48B when eggs start hatching and larvae are small (early instars) and before significant crop damage occurs. Larvae must be actively feeding to be affected.

Repeat applications every 3 to 14 days to maintain control and protect new plant growth. Factors affecting spray interval include rate of plant growth, weather conditions, and reinfestation. Monitor populations of pests and beneficials to determine proper timing of applications.
Under conditions of heavy pest pressures or when large worms are present, use the higher rate, shorten the application interval, and/or improve spray coverage to enhance control. When these conditions are present, consider use of a contact insecticide to enhance control.

Thorough coverage is essential for optimum performance. Ground applicators equipped with directed drop nozzles can improve coverage.

Crop Group	Pests	Rate (Pints/Acre)
Forage, Fodder, Hay		
Alfalfa (Hay & Seed) and Other Non-grass Animal Feeds, Grasses Grown for Feed (pasture, ranges, hay or silage)	Alfalfa Caterpillar	1.0 - 3.0
	Loopers	1.5 - 5.5
	Armyworms*	1.5 - 3.0
	European Skipper (Essex Skipper)	
Fruits & Nuts		
Pome and Stone Fruit Trees such as: Apples, Pears, Quince, Apricots, Cherries, Nectarines, Peaches, Plums, Prunes. Nut Trees such as: Almonds, Filbert, Chestnuts, Walnuts, Pecans.	Citrus Cutworm Navel Orangeworm Redhumped Caterpillar Tent Caterpillars Omnivorous Leafroller Tortrix Moths Cankerworms Peach Twig Borer Fruittree Leafroller Gypsy Moth & Asian Gypsy Moth Turfted Apple Budmoth Fall Webworm Variegated Leafroller Redbanded Leafroller Walnut Caterpillar Codling Moth Cutworms Filbert Leafroller Oblique Banded Leafroller	1.5 - 5.5
	Filbert Webworm	1.5 - 3.0
	Roughskinned Cutworm	1.0 - 1.5

Crop Group	Pests	Rate (Pints/Acre)
Citrus	Orangedog	1.0 - 3.0
	Fruittree Leafroller Citrus Cutworm	1.5 - 5.5
	Amorbia**	3.0 - 4.0
Small Fruit and Berries such as: Blackberries, Blueberries, Currants, Raspberries, Strawberries, Cranberries	Gypsy Moth & Asian Gypsy Moth Blueberry Leafroller Loopers Fruittree Leafroller Grape Berry Moth Oblique Banded Leafroller Achema Sphinx Moth (Hornworm)	1.5 - 3.0
	Armyworms*	1.5 - 5.5
	Tobacco Budworm	5.5
Grapes	Cherry Fruitworm Green Fruitworm	1.0 - 1.5
	Grape Leafroller Grapeleaf Skeletonizer Omnivorous Leafroller Orange Tortrix Saltmarsh Caterpillar	1.5 - 4.0
Other Fruits		
Bananas	Banana Skipper	1.5 - 3.0
Tropical Fruits	Hornworms Leafrollers Loopers Omnivorous Looper	1.5 - 5.5
Kiwi	Omnivorous Leafroller	1.5 - 5.5
Pineapple	*Gummosos-Batrachedra commosae* (Hodges) Thecla-Thecla basilides (Geyr)	1.0 - 1.5
Melons	(See Vegetable Crops, Cucurbits)	

Crop Group	Pests	Rate (Pints/Acre)
Vegetables and Cole Crops		
Root & Tuber Vegetables, and leaves of Root and Tuber vegetables such as: Beets, Carrot, Horseradish, Radish, Potato, Sweet Potato, Turnip and Turnip Greens, Sugarbeets	Imported Cabbageworm	1.0 - 3.0
	Green Cloverworm Hornworms	0.5 - 3.0
	Cutworms Loopers Webworms Saltmarsh Caterpillar Omnivorous Leafroller	1.5 - 3.0
	Armyworms*	1.5 - 5-5
	Diamondback Moth	1.0 - 3.0
	European Corn Borer	3.0 - 4.0
	Alfalfa Caterpillar	0.5 - 1.0
Bulb Vegetables such as: Garlic, Leeks, Onions, Shallot	Saltmarsh Caterpillar Omnivorous Leafroller Webworms	1.5 - 3.0
	Hornworms	0.5 - 3.0
	Imported Cabbageworm Green Cloverworm Loopers	1.0 - 3.0
	Cutworms	1.5 - 3.0
	Armyworms*	1.5 - 5.5
	Diamondback Moth	1.0 - 1.5
	European Corn Borer	3.0 - 4.0
	Heliothis armigera	3.0

Crop Group	Pests	Rate (Pints/Acre)
Leafy vegetables such as: Celery, Lettuce (Head and Leaf), Parsley, Endive, Spinach, Kale	Imported Cabbageworm Green Cloverworm	1.0 - 3.0
	Hornworms	0.5 - 3.0
	Cutworms Webworms	1.5 - 3.0
	Loopers Diamondback Moth	1.0 - 3.0
	Saltmarsh Caterpillar Omnivorous Leafroller	1.5 - 3.0
	Armyworms*	1.5 - 5.5
	European Corn Borer	3.0 - 4.0
Legume and foliage of Legume vegetables, such as: Lentils, Peas, Beans, Soybeans	Loopers	1.0 - 3.0
	Hornworms	0.5 - 1.5
	Podworms Imported Cabbageworm Green Cloverworm Saltmarsh Caterpillar Soybean Loopers Velvetbean Caterpillar	1.5 - 3.0
	Armyworms*	1.5 - 5.5
	Diamondback Moth	1.0 - 3.0
	European Corn Borer	3.0 - 4.0
	Cutworms	1.5 - 4.0

Crop Group	Pests	Rate (Pints/Acre)
Fruiting Vegetables such as: Eggplant, Peppers, Tomatoes	Imported Cabbageworm Diamondback Moth Green Cloverworm	1.0 - 1.5
	Hornworms	0.5 - 3.0
	Tomato Fruitworm (*Heliothis zea, Heliothis armigera*) Variegated Cutworm Saltmarsh Caterpillar Loopers	1.5 - 3.0
	Armyworms*	1.5 - 5.5
	European Corn Borer	3.0 - 4.0
Brassica (cole) vegetables such as: Broccoli, Brussels sprouts, Cabbage, Cauliflower, Collards, Kohlrabi	Hornworms	0.5 - 3.0
	Webworms Loopers Cutworms Saltmarsh Caterpillar Omnivorous Leafroller	1.5 - 3.0
	Diamondback Moth Imported Cabbageworm Green Cloverworm	1.0 - 3.0
	Armyworms*	1.5 - 5.5
	European Corn Borer	3.0 - 4.0
Curcurbit vegetables such as: Cucumbers, Melons, Pumpkins, Squash, Watermelon	Imported Cabbageworm Green Cloverworm Diamondback Moth Loopers Saltmarsh Caterpillar Melonworm Pickleworm Rindworm complex	1.0 - 3.0
	Armyworms*	1.5 - 5.5
	European Corn Borer	3.0 - 4.0
	Hornworms	0.5 - 1.5

Crop Group	Pests	Rate (Pints/Acre)
OTHER VEGETABLES		
Artichokes	Artichoke Plume Moth	1.5 - 4.0
	Armyworms*	1.5 - 4.0
	Loopers	1.0 - 4.0
Asparagus	Armyworms*	1.5 - 5.5
	Diamondback Moth Green Cloverworm Imported Cabbageworm	1.0 - 1.5
	Loopers	1.0 - 3.0
Malanga	Armyworms*	1.5 - 5.5
	Saltmarsh Caterpillar	1.5 - 3.0
Watercress (Spray only when there is no standing water in the bed.)	Loopers Diamondback Moth	1.0 - 3.0
	Armyworms*	1.5 - 5.5
	Green Cloverworm Imported Cabbageworm	1.0 - 1.5
	Saltmarsh Caterpillar	1.5 - 3.0
	European Corn Borer	3.0 - 4.0
Sweet Corn	(see Other Crops, Corn)	
Herbs, Spices, Mints		
Such as Basil, Dill, Oregano, Thyme, Peppermint	Loopers	1.0 - 3.0
	Diamondback Moth Green Cloverworm Imported Cabbageworm	1.0 - 1.5
	Armyworms*	1.5 - 5.5
	European Corn Borer	3.0 - 4.0
Other Crops Avocados	Loopers	3.0 - 4.0
	Orange Tortrix Omnivorous Leafroller Omnivorous Looper Spanworm	1.5 - 5.5
	Amorbia**	1.5 - 5.5

Crop Group	Pests	Rate (Pints/Acre)
Rice	Armyworms*	1.5 - 4.0
	Loopers Saltmarsh Caterpillar	1.5 - 3.0
	Cutworms	1.5 - 4.0
	Green Cloverworm Velvetbean caterpillar	1.0 - 1.5
	Heliothis virescens *Heliothis armigera*	3.0
Cotton (Except CA & AZ)	Loopers	1.5 - 3.0
	Armyworms*	1.5 - 5.5
	Cotton Bollworm Tobacco Budworm	1.0 - 5.5

Special Instructions: For early season management of *Heliothis/Helicoverpa* species, initiate applications at pinhead square stage when eggs are present. For best results, time applications to coincide with egg hatch. Continue applications on 5 day intervals. Consider the use of an ovicide for additional benefits. When selecting an ovicide, consider the preservation of beneficial insects. Continue applications of Foray 48B throughout the season, as needed. As the larval population increases through the season, increase rates of Foray 48B, and tank-mix with other larvicides for increased control. When the crop canopy is dense and larvae are feeding in the lower canopy, aerial application of Foray 48B may not provide adequate deposit for acceptable control. Before mixing Foray 48B with other products, identify possible problems with physical compatability by mixing all components in a small container in appropriate quantities. Use and mix this product with other pesticides only in accordance with the most restrictive label limitations and precautions. Do not mix this product with any product containing label prohibition against such mixing. Do not exceed label dosage rates.

Crop Group	Pests	Rate (Pints/Acre)
Cotton (CA & AZ)	Armyworms*	1.5 - 5.5
	Cotton Leaf Perforator Cotton Leafworm Saltmarsh Caterpillar	1.5 - 3.0
	Loopers	1.5 - 3.0
	Cotton Bollworm Tobacco Budworm	1.5 - 5.5

Special Instructions: Repeat as necessary throughout the season to maintain control. If egg laying frequency indicates future moderate to heavy larval populations, time application to coincide with the second instar larvae. During periods of high temperatures, larvae will progress through first to third instars very rapidly and early application timing is necessary for control. When plant cover is dense and larvae are feeding in the lower 2/3 portion of the plant, aerial application of Foray 48B may not provide adequate deposit to achieve acceptable control.

Crop Group	Pests	Rate (Pints/Acre)
Canola/Rape Seed	Armyworms*	1.5 - 5.5
	Diamondback Moth	1.0 - 1.5
	Loopers	1.5 - 3.0
	Heliothis zea; Heliothis armigera	1.5 - 5.5
Corn Such as: Field, Sweet, Popcorn	Armyworms*	1.5 - 5.5
	European Corn Borer (Whorl Stage Only)	1.5 - 4.0
	Southwestern Corn Borer	3.0 - 4.0
Hops	Armyworms*	1.5 - 5.5
	Loopers	1.0 - 3.0
	Omnivorous Leaftier Spotted Cutworm Oblique Banded Leafroller	1.5 - 3.0
Jojoba	Looper (*Anacamptodes* spp)	1.5 - 3.0
Peanuts	Green Cloverworm Loopers Velvetbean Caterpillar Podworms	1.5 - 3.0
	*Heliothis zea; Heliothis armigera***	3.0

Crop Group	Pests	Rate (Pints/Acre)
Persimmons, Pomegranate	Fall Webworm Filbert Webworm Omnivorous Leafroller Redhumped Caterpillar Tent Caterpillars	1.5 - 3.0
	Citrus Cutworm	1.5 - 4.0
Safflower	Armyworms*	1.5 - 5.5
	Loopers Saltmarsh Caterpillar	1.5 - 3.0
Sorghum	Headworm	1.5 - 3.0
Soybeans	(see Vegetable Crops, Legumes)	
Sunflowers	Headmoth Loopers	1.5 - 3.0
Small Grains	Armyworms*	1.5 - 5.5
	Loopers	1.5 - 3.0
Tobacco	Tobacco Hornworm	0.5 - 1.5
	Loopers	1.0 - 3.0
	Tobacco Budworm**	3.0
Flowers Bedding Plants, and Ornamentals Ornamentals Flowers, Bedding Plants	Armyworms*	1.5 - 5.5
	Azalea Moth Diamondback Moth Ello Moth (Hornworm) Io Moth Loopers Oleander Moth Omnivorous Leafroller Omnivorous Looper Tobacco Budworm	1.0 - 1.5
Greenhouse and Outdoor Nursery Crops Such as: Flowers, Brassica, Fruiting Groups, Herbs, and Leafy	Armyworms*	1.5 - 5.5
	Heliothis zea Loopers	1.5 - 3.0

Crop Group	Pests	Rate (Pints/Acre)
Turf		
Turf	Sod Webworm	3.0-5.5
	Tropical Sod Webworm	3.0
	Armyworm*	3.0

Crop	Pests	Rate[1] (fl. oz./acre)
Forests, Shade Trees, Ornamentals, Shrubs, Sugar Maple Trees:		
Forests, Shade Trees, Ornamentals, Shrubs, Sugar Maple Trees, Seed Orchards, Ornamental Fruit, Nut & Citrus Trees[2]	Gypsy Moth & Asian Gypsy Moth Elm Spanworm	21 -107
	Spruce Budworm Browntail Moth Douglas fir tussock moth Coneworm Buck moth	21 - 80
	Tussock Moths Pine Butterfly Bagworm Leafrollers Tortrix Mimosa Webworm Tent Caterpillar Jackpine Budworm Blackheaded Budworm Saddled Prominent Saddleback Caterpillar Eastern & Western Hemlock looper Orangestriped Oakworm Satin Moth	16 - 43
	Redhumped Caterpillars Spring & Fall Cankerworm California Oakworm Fall Webworm	11 - 31

Special Instructions

*Armyworm Control: Use Foray 48B to control small armyworms (first and second instar) when populations are light and full coverage sprays are applied. Repeat treatment as necessary. If late instar larvae or heavy populations are present, achive greater control by adding a contact insecticide.

**Suppression Only: Use to aid in control of light to moderate populations of first and second instars in Integrated Pest Management conditions. Repeat treatments at four to five day intervals. Use an additional ovicidal or larvicidal insecticide to aid in control.

[1]Use the higher rates on advanced larval stages or under high density larval populations.

[2]In treating Gypsy Moth and Asian Gypsy Moth infected trees and shrubs in agricultural establishments, exposure of non-target vegetation including, but not limited to, native and ornamental species and food or feed crops is permitted.

FORAY® 48B
BIOLOGICAL INSECTICIDE
FLOWABLE CONCENTRATE
SUB-LABEL B

For Commercial Forestry and Wide-Area Pest Treatment - Aerial Application Only

Forests, Shade Trees, Ornamentals, Shrubs, Sugar Maple Trees, Seed Orchards, Ornamental Fruit, Nut & Citrus Trees

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FLOWABLE CONCENTRATE

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For Organic Production

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Total 100.00%

Potency: 10,600 Cabbage Looper Units (CLU) per mg of product (equivalent to 48 billion CLU per gallon).

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

KEEP OUT OF REACH OF CHILDREN

CAUTION

Net Contents:

Valent BioSciences Corporation
870 Technology Way, Suite 100
Libertyville, IL 60048
EPA Registration No. 73049-427
EPA Est. No. 33762-IA-1

Lot No.:

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking chewing gum, using tobacco or using the toilet.

Personal Protective Equipment (PPE)
Applicators and other handlers must wear:

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

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.

Agricultural Use Requirements:
Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must provide all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as spill or equipment breakdown.

Non-agricultural Use Requirement:
Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

User Safety Recommendations

Users should:

- Remove clothing/PPE 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.

Environmental Hazards

Except under the forest canopy, 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 cleaning equipment or disposing of equipment washwaters.

This product must not be applied aerially within ¼ mile of any habitats of threatened or endangered Lepidoptera.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal 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. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions For Use section for information about this standard.

Refer to the Directions For Use Booklet attached to this container for further directions.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place. Keep containers tightly closed when not in use. Store in temperatures above freezing and below 32 degrees C (90 degrees F).

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes can not be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Refillable container: Refill this container with pesticide only. Do not use this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Warranty and Disclaimer

To the extent permitted by applicable law, 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.

DIRECTIONS FOR USE BOOKLET

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

Apply this product only through aerial application.

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 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.

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 (that involves contact with anything that has been treated, such as plants, soil, or water) is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

NON- AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses that are NOT with in 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.

APPLICATION

Apply Foray 48B, undiluted or with quantities of water sufficient to provide thorough coverage of plant parts to be protected, only by aerial equipment. The amount of water needed per acre will depend upon crop size, weather, spray equipment, and local experience.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower/treatment coordinator are responsible for considering all of these factors when making decisions.

HANDLING & MIXING

If Foray 48B is applied undiluted, the operator must ensure that the bulk quantity is well agitated and homogenous.

When Foray 48B is shipped by bulk tankers and transferred via a 'closed loop' mixing/loading system, the material is measured by passing through in-line flow meters directly into the aircraft, minimizing exposure to ground handling personnel.

In a similar manner, smaller containers of Foray 48B are also to be used with a 'closed-loop' mixing/loading system to minimize the potential for accidental spills and exposure of ground handling personnel.

If dilution with water is needed for full crop coverage, fill tank with approximately ¾ of the water required for dilution. Begin agitation and pump Foray 48B into the water while maintaining continuous agitation. Agitate as necessary to maintain suspension. Do not allow diluted mixture to remain in the tank for more than 72 hours.

When applying a diluted spray mixture, the use of a spreader-sticker approved for use on growing crops will improve the weather-fastness of the spray deposits. Add the spray adjuvant to the tank after the Foray 48B is added, and before the final volume of water is added to complete the mixture. Reduce or momentarily halt tank agitation and then add the required amount of adjuvant to the diluted mix. Use a closed-loop system to siphon the required quantity of adjuvant or pour the adjuvant into the top hatch of the tank. Once added, close tank opening, and resume agitation; add the rest of the water to complete the spray mix.

Combinations with commonly used spray tank adjuvants are generally not deleterious to Foray 48B, if the mix is used promptly. Before mixing in the spray tank, identify possible problems with physical compatibility by mixing all components in a small container in proportionate quantities. Check with an adjuvant supplier for advice on spray adjuvants that are compatible with biological pesticides such as Foray 48B to avoid incompatibilities.

SPRAY VOLUMES

Aerial Application: Use appropriate amount of Foray 48B, as indicated in the tables that follow, in aerial equipment undiluted or with quantities of water sufficient to provide thorough coverage of plant parts to be protected. In the western U.S., use a normal minimum of 5-10 gallons per acre; in the eastern regions, use a normal minimum of 2-3 gallons. The minimum amount of water needed per acre will depend upon crop size, weather conditions, spray equipment used and local experience.

GENERAL AGRICULTURAL USE INSTRUCTIONS

Foray 48B is a biological insecticide for the control of lepidopterous larvae. It contains the spores and endotoxin crystals of *Bacillus thuringiensis kurstaki*. Foray 48BC must be ingested by the larvae to be effective. For consistent control, apply at first sign of newly hatched larvae (1st and 2nd instar larvae). Susceptible larvae that ingest Foray 48BC cease feeding within a few hours and die within 2-5 days.

Foray 48B may be applied up to and on the day of harvest.

For maximum effectiveness, follow the instructions listed below:

Monitor fields to detect early infestations.

Apply Foray 48BC when eggs start hatching and larvae are small (early instars) and before significant crop damage occurs. Larvae must be actively feeding to be affected.

Repeat applications every 3 to 14 days to maintain control and protect new plant growth. Factors affecting spray interval include rate of plant growth, weather conditions, and reinfestation. Monitor populations of pests and beneficials to determine proper timing of applications.

Under conditions of heavy pest pressures or when large worms are present use the higher rate, shorten the application interval, and/or improve spray coverage to enhance control. When these conditions are present, consider use of contact insecticide to enhance control.

Thorough coverage is essential for optimum performance.

Crop	Pests	Rate[1] (fl.oz./acre)
Forests, Shade Trees, Ornamentals, Shrubs, Sugar Maple Trees, Seed Orchards, Ornamental Fruit, Nut & Citrus Trees[2]	Gypsy Moth & Asian Gypsy Moth Elm Spanworm	21 -107
	Spruce Budworm Browntail Moth Douglas fir tussock moth Coneworm Buck moth	21 - 80
	Tussock Moths Pine Butterfly Bagworm Leafrollers Tortrix Mimosa Webworm Tent Caterpillar Jackpine Budworm Blackheaded Budworm Saddled Prominent Saddleback Caterpillar Eastern & Western Hemlock looper Orangestriped Oakworm Satin Moth	16 - 43
	Redhumped Caterpillars Spring & Fall Cankerworm California Oakworm Fall Webworm	11 - 31

Special Instructions:

[1]Use the higher rates on advanced larval stages or under high density larval populations.

[2]In treating Gypsy Moth and Asian Gypsy Moth infected trees and shrubs in urban, rural, and semi-rural areas, exposure of non-target vegetation including, but not limited to, native and ornamental species and food or feed crops is permitted.

Use and mix this product with other pesticides only in accordance with the most restrictive of label limitations and precautions. Do not mix this product with any product containing a label prohibition against such mixing. Do not exceed label dosage rates.

GENERAL NON-AGRICULTURAL USE INSTRCTIONS

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in ornamental gardens or parks, or on golf courses or lawns and grounds.

Not for use on trees being grown for sale or other commercial use, or for commercial seed production, or for the production of timber or wood products, or for research purposes except wide-area public pest control programs sponsored by government entities, such as mosquito abatement, gypsy moth control, and Mediterranean fruit fly eradication.

Foray 48B contains the spores and endotoxin crystals of *Bacillus thuringiensis kurstaki*. Foray 48B is a stomach poison and is effective against lepidopterous larvae. After ingestion, larvae stop feeding within hours and die 2-5 days later. Maximum activity is exhibited against early instar larvae. Apply Foray 48B only by aerial application.

Use Foray 48B with a 'closed-loop' mixing/loading system that will minimize the potential for accidental spills and exposure of ground handling personnel.
If dilution with water is needed for full crop coverage, fill tank with approximately ¾ of the water required for dilution. Begin agitation and pump Foray 48B into the water while maintaining continuous agitation. Agitate as necessary to maintain suspension. Do not allow diluted mixture to remain in the tank for more than 72 hours.

Monitor to detect early infestations.

Crop	Pests	Rate[1] (fl.oz./acre)
Forests, Shade Trees, Ornamentals, Shrubs, Sugar Maple Trees, Seed Orchards, Ornamental Fruit, Nut & Citrus Trees[2]	Gypsy Moth & Asian Gypsy Moth Elm Spanworm	21 -107
	Spruce Budworm Browntail Moth Douglas fir tussock moth Coneworm Buck moth	21 - 80
	Tussock Moths Pine Butterfly Bagworm Leafrollers Tortrix Mimosa Webworm Tent Caterpillar Jackpine Budworm Blackheaded Budworm Saddled Prominent Saddleback Caterpillar Eastern & Western Hemlock looper Orangestriped Oakworm Satin Moth	16 - 43
	Redhumped Caterpillars Spring & Fall Cankerworm California Oakworm Fall Webworm	11 - 31

Special Instructions:

[1]Use the higher rates on advanced larval stages or under high density larval populations.

[2]In treating Gypsy Moth and Asian Gypsy Moth infected trees and shrubs in urban, rural, and semi-rural areas, exposure of non-target vegetation including, but not limited to, native and ornamental species and food or feed crops is permitted.

Use and mix this product with other pesticides only in accordance with the most restrictive of label limitations and precautions. Do not mix this product with any product containing a label prohibition against such mixing. Do not exceed label dosage rates.

Aerial Application

Apply Foray 48B, either alone or diluted with water, aerially at the rates per acre shown in the application rates table. Spray volumes of 32-107 fluid ounces of product per acre give optimum coverage. Best results are expected when Foray 48B is applied to dry foliage.

For smaller spray volumes, mix the proper number of teaspoons of Foray 48B from the following chart to attain the desired rates:

If the rate is:	**Add this amount per gallon of mix:**	
8 fl. oz (0.5 pt.)/acre	1/2	teaspoon
16 fl. oz (1.0 pts)/acre	1	teaspoon
24 fl. oz (1.5 pts.)/acre	1 1/2	teaspoons
32 fl. oz (2.0 pts.)/acre	2	teaspoons
48 fl. oz. (3.0 pts.)/acre	3	teaspoons
64 fl. oz (4.0 pts.)/acre	4	teaspoons

FORAY® XG
BIOLOGICAL INSECTICIDE
FLOWABLE CONCENTRATE
SUB-LABEL C

For Urban Use – Ground application only

FORAY® XG
BIOLOGICAL INSECTICIDE
FLOWABLE CONCENTRATE
For Urban Use – Ground Application

For Organic Production

Active Ingredient:

Bacillus thuringiensis subsp. *kurstaki*, Strain ABTS-351, fermentation solids, spores and insecticidal toxins	12.65%
Other Ingredients	87.35%
Total	100.00%

Potency: 10,600 Cabbage Looper Units (CLU) per mg of product (equivalent to 48 billion CLU per gallon).

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

KEEP OUT OF REACH OF CHILDREN

CAUTION

Net Contents:

Valent BioSciences Corporation
870 Technology Way, Suite 100
Libertyville, IL 60048
EPA Registration No. 73049-46
EPA Est. No. 33762-IA-1

Lot No.:

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking chewing gum, using tobacco or using the toilet.

Personal Protective Equipment (PPE)
Applicators and other handlers must wear:

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

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.

Non-agricultural Use Requirements:
Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

User Safety Recommendations

Users should:

- Remove clothing/PPE 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.

Environmental Hazards

For Terrestrial Uses: 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 cleaning equipment or disposing of equipment washwaters.
No manual application can take place within 300 feet of any threatened or endangered Lepidoptera.

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 State or Tribal agency responsible for pesticide regulation.

NON- AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses that are NOT with in 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.

Exposure of unprotected persons can be mitigated by directed spraying. Spray should be allowed to dry undisturbed.

General Non-Agricultural Use Instructions

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in interior plantscapes, ornamental gardens or parks, or on golf courses or lawns and grounds.

Not for use on trees being grown for sale or other commercial use, or for commercial seed production, or for the production of timber or wood products, or for research purposes except wide-area public pest control programs sponsored by government entities, such as mosquito abatement, gypsy moth control, and Mediterranean fruit fly eradication.

Foray XG contains the spores and endotoxin crystals of *Bacillus thuringiensis kurstaki*. Foray XG is a stomach poison and is effective against lepidopterous larvae. After ingestion, larvae stop feeding within hours and die 2-5 days later. Maximum activity is exhibited against early instar larvae. Before use, shake or stir the product. Add some water to the tank mix, pour the required amount of Foray XG into the tank and then add the remaining amount of water to obtain the proper mix ratio. Agitate as necessary to maintain the suspension. Use the diluted mix within 72 hours.

Monitor fields to detect early infestations.

Apply Foray XG when eggs start hatching and larvae are small (early instars) and before significant crop damage occurs. Larvae must be actively feeding to be affected.

Repeat applications every 3 to 14 days to maintain control and protect new plant growth. Factors affecting spray interval include rate of plant growth, weather conditions, and reinfestation. Monitor populations of pests and beneficials to determine proper timing of applications.
Under conditions of heavy pest pressures or when large worms are present, use the higher rate, shorten the application interval, and/or improve spray coverage to enhance control. When these conditions are present, consider use of a contact insecticide to enhance control.

Thorough coverage is essential for optimum performance. Ground applicators equipped with directed drop nozzles can improve coverage.

Crop	Pests	Rate[1] (fl. oz./1000 ft^2)
Forest and Shade Trees, Ornamentals, Shrubs, Sugar Maple Trees, Seed Orchards, Ornamental Fruit, Nut & Citrus Trees[2]	Gypsy Moth & Asian Gypsy Moth Elm Spanworm	0.5 - 2.5
	Spruce Budworm Browntail Moth Douglas fir tussock moth Coneworm Buck moth	0.5 - 1.9
	Tussock Moths Pine Butterfly Bagworm Leafrollers Tortrix Mimosa Webworm Tent Caterpillar Jackpine Budworm Blackheaded Budworm Saddled Prominent Saddleback Caterpillar Eastern & Western Hemlock looper Orangestriped Oakworm Satin Moth	0.3 - 1.0
	Redhumped Caterpillars Spring & Fall Cankerworm California Oakworm Fall Webworm	0.25 - 0.75

Crop	Pests	Rate[1] (fl. oz./1000 ft^2)
Ornamentals Flowers, Bedding Plants	Armyworms*	0.5 - 1.8
	Azalea Moth Diamondback Moth Ello Moth (Hornworm) Io Moth Loopers Oleander Moth Omnivorous Leafroller Omnivorous Looper Tobacco Budworm	0.3 - 0.5

APPLICATION

Apply Foray XG undiluted or with quantities of water sufficient to provide thorough coverage of plant parts to be protected. The amount of water needed per acre will depend upon crop size, weather, spray equipment, and local experience.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower/treatment coordinator are responsible for considering all of these factors when making decisions.

MIXING

Shake or stir Foray XG before use. If dilution is desired fill spray or mixing tank with half of the desired water. Begin agitation and pour Foray XG into water while maintaining continuous agitation. Add other spray material (if any) and balance of water. Agitate as necessary to maintain suspension. Do not allow diluted mixture to remain in the tank for more than 72 hours.

To improve weather-fastness of the spray deposits for hard to wet crops, such as cole crops, use a spreader-sticker approved for use on growing crops. Combinations with commonly used spray tank adjuvants are generally not deleterious to Foray XG, if the mix is used promptly. Before mixing in the spray tank, identify possible problems with physical compatibility by mixing all components in a small container in proportionate quantities. Check with an adjuvant supplier for advice on spray adjuvants that are compatible with biological pesticides such as Foray XG to help avoid incompatibilities.

SPRAY VOLUMES

Ground Application: Use amount of Foray XG, as indicated in the application tables, in ground equipment with quantities of water sufficient to provide thorough coverage of plant parts to be protected. The amount of water needed per acre will depend upon crop size, weather conditions, spray equipment used and local experience.

Use an adequate amount of tank mix to obtain thorough coverage without excessive run off. Use the indicated per acre rates of Foray XG in up to the following amounts of water:

High volume hydraulic sprayers	100 gallons
Mist blowers	10 gallons

For smaller spray volumes, mix the proper number of teaspoons of Foray XG from the following chart to attain the desired rates:

If the rate is:	**Add this amount per gallon of mix:**
0.15 fl. oz../1000 ft.	1/2 teaspoon
0.3 fl. oz../1000 ft.	1 teaspoon
0.5 fl. oz../1000 ft.	1 1/2 teaspoons
1.0 fl. oz../1000 ft.	3 teaspoons
1.3 fl. oz../1000 ft.	4 teaspoons
1.8 fl. oz../1000 ft.	5 1/2 teaspoons

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place. Keep containers tightly closed when not in use. Store in temperatures above freezing and below 32 degrees C (90 degrees F).

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes can not be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Warranty and Disclaimer

To the extent permitted by applicable law, 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.