

# Foray<sup>®</sup> XG

BIOLOGICAL INSECTICIDE

FLOWABLE CONCENTRATE



FOR ORGANIC PRODUCTION

For Urban Use - Ground Application

## 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/gallon).

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

EPA Reg. No. 73049-427  
EPA Est. No. 33762-IA-001

List No. 60181

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**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

1.0

## 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.

2.0

## PRECAUTIONARY STATEMENTS

2.1

### 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.

2.2

### 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.

2.3

### Non-Agricultural Use Requirements

Mixers/loaders and applicators must wear a NIOSH-approved particulate respirator with any R or P filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with a HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.4

### 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.

2.5

### 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.

**3.0 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.

**4.0 NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses 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.

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

**5.0 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 (fl. oz./1000 ft <sup>2</sup> )
Forests and Shade Trees,	Gypsy Moth & Asian Gypsy Moth, Elm Spanworm	0.5 - 2.5
Ornamentals, Shrubs, Sugar Maple Trees,	Spruce Budworm, Brown-tail Moth, Douglas Fir Tussock Moth, Coneworm, Buck Moth	0.5 - 1.9
Seed Orchards, Non-Bearing Ornamental Fruit, Nut and Citrus Trees	Tussock Moths, Pine Butterfly, Bagworm, Leafrollers, Tortrix, Mimosa Webworm, Tent Caterpillar, Jackpine Budworm, Blackheaded Budworm, Saddled Prominent, Saddleback Caterpillar, Eastern and Western Hemlock Looper, Orangestriped Oakworm, Satin Moth	0.3 - 1.0
Ornamental Flowers, Bedding Plants	Redhumped Caterpillars, Spring and Fall Cankerworm, California Oakworm, Fall Webworm	0.25 - 0.75
Ornamental Flowers, Bedding Plants	Armyworms	0.5 - 1.8
Flowers, Bedding Plants	Azalea Moth, Diamondback Moth, Ello Moth (Hornworm), Io Moth, Loopers, Oleander Moth, Omnivorous Leafroller, Omnivorous Looper, Tobacco Budworm	0.3 - 0.5

**6.0 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.

**7.0 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.

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.

CONTINUED

## 8.0 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. <sup>2</sup>	1/2 teaspoon
0.3 fl. oz./1000 ft. <sup>2</sup>	1 teaspoon
0.5 fl. oz./1000 ft. <sup>2</sup>	1-1/2 teaspoons
1.0 fl. oz./1000 ft. <sup>2</sup>	3 teaspoons
1.3 fl. oz./1000 ft. <sup>2</sup>	4 teaspoons
1.8 fl. oz./1000 ft. <sup>2</sup>	5-1/2 teaspoons

## 9.0 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°C (90°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 1/4 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. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact Ag Container Recycling Council at 202-861-3144 or [www.acrecycle.org](http://www.acrecycle.org). If recycling is not available, puncture and dispose of the container in a sanitary landfill, or by other procedures approved by state and local authorities.

## 10.0 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.

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