

**XenTari® WG**  
Biological Insecticide

Water Dispersible Granules

COMMERCIAL  
READ THE LABEL AND ATTACHED BROCHURE BEFORE USING

GUARANTEE:  
*Bacillus thuringiensis*, subsp. *aizawai*, Strain ABTS-1857 fermentation solids,  
spores, and insecticidal toxins. . . . .48.1%

WARNING CONTAINS THE ALLERGEN SOY

REGISTRATION NO. 31557  
PEST CONTROL PRODUCTS ACT

CAUTION EYE IRRITANT  
POTENTIAL SENSITIZER  
KEEP OUT OF REACH OF CHILDREN

Lot No.  
Date of Manufacture:  
Net Contents:

Registrant:  
Valent BioSciences Corporation  
870 Technology Way  
Libertyville, Illinois 60048, USA  
1-800-323-9597

Canadian Agent:  
Valent Canada, Inc.  
3-728 Victoria Road South  
Guelph, Ontario N1L 1C6

**PRECAUTIONS:****KEEP OUT OF REACH OF CHILDREN**

May cause sensitization. May irritate eyes. Avoid contact with eyes. Avoid breathing dust or spray mist. Wear a long-sleeved shirt, long pants, shoes and socks, eye goggles, and NIOSH approved respirator with any N-95, R-95 or P-95 filter for biological products when handling, mixing/loading or applying the product and during all clean-up and repair activities. When applicators use closed systems (e.g. enclosed cabs) the personal protective equipment may be reduced or modified. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

When used in greenhouse, do not re-enter or allow re-entry into treated areas until the spray is dried unless wearing appropriate personal protective equipment, including a long-sleeved shirt, long pants, shoes plus socks, eye goggles and waterproof gloves. In addition, a dust-mist filtering respirator/mask (NIOSH approval number prefix TC-21C) or NIOSH approved respirator (with any N-95, P-95, R-95 or HE filter for biological products) is required until spray mist has settled.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at: [www.croplife.ca](http://www.croplife.ca).

<b>FIRST AID</b>	
If on skin or clothing	Rinse skin immediately with plenty of water. Remove contaminated clothing and wash separately before reuse. If irritation occurs and persists or is severe, seek medical attention.
If in eyes	Hold eye open and rinse slowly and gently with water. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If irritation occurs and persists or is severe, seek medical attention.
If inhaled	Move person to fresh air, apply respiration if needed and seek medical attention.
If swallowed	Rinse mouth and throat with copious amounts of water. DO NOT induce vomiting. Promptly contact a physician or poison control centre. DO NOT give anything by mouth to an unconscious person.
General	Seek medical attention if irritation or signs of toxicity occur and persist or is severe. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**TOXICOLOGICAL INFORMATION** Treat symptomatically.

## ENVIRONMENTAL HAZARDS

- Toxic to bees. Bees may be exposed to direct treatment, drift, or residues on flowering crops or weeds.
- DO NOT apply this product to flowering crops if bees are visiting the treatment area. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site.
- Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland.
- This product is toxic to aquatic organisms.

## STORAGE

In order to ensure microbial purity and potency XenTari WG Biological Insecticide should be stored in the original container at 0 to 25°C and use within 24 months of the date of manufacture. Store container upright and keep tightly closed when not in use. To prevent contamination store this product away from food or feed.

## DISPOSAL

Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank. Follow provincial instruction for any required additional cleaning of the container prior to its disposal. Make the empty container unsuitable for further use. Dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

## RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that XenTari WG Biological Insecticide contains a Group 11 insecticide. Any insect population may contain individuals naturally resistant to XenTari WG Biological Insecticide and other Group 11 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same site. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. The following appropriate resistance management strategies should be followed to delay insecticide resistance:

- Where possible, rotate the use of XenTari WG Biological Insecticide or other Group 11 insecticides with different groups that control the same pests.
- Insecticide use should be based on an Integrated Pest Management program that includes scouting and record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or integrated pest management recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance, contact Valent BioSciences Corporation at 1-800-323-9597

## DIRECTIONS FOR USE

DO NOT apply this product through any type of irrigation system.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes. As this pesticide is not registered for control of pests in aquatic systems, DO NOT use to control aquatic pests.

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 WG Biological Insecticide at the site of larval feeding. Use overhead and drop nozzles to obtain good spray coverage on both side of foliage. Use sufficient spray volume to ensure uniform deposition on all plant surfaces.
- Best results are obtained if applications are made in the evening or on a cloudy day.
- Repeat applications at an interval sufficient to maintain control, usually 3 to 14 days, depending on plant growth rate, moth activity, rainfall after treatment and other factors. If attempting to control a pest with a single spray, make the treatment when egg hatch is essentially complete, but before crop damage occurs.
- Consult provincial guidelines and regional advisors for specific information about the timing and number of applications.
- XenTari WG Biological Insecticide may be applied up to the day of harvest.
- DO NOT allow spray mixture to stand in the tank for more than 12 hours.

#### MIXING INSTRUCTIONS:

Partially fill spray tank with water and provide moderate agitation. Add the required amount of XenTari WG Biological Insecticide while maintaining agitation. Add remaining water, if any. Maintain moderate agitation while loading and spraying. Do not mix more XenTari WG Biological Insecticide than can be used in a 12-hour period.

**DO NOT apply by air.**

**APPLICATION RATE:**

CROP	PEST	Rate (g/ha)
<p>Roots and tubers of horseradish, radish, radish (Oriental), rutabaga, turnip; cultivars, varieties and hybrids of these.</p>	<p>CABBAGE LOOPER            CROSS-STRIPED CABBAGEWORM            DIAMONDBACK MOTH            IMPORTED CABBAGEWORM</p>	<p>500 – 1000</p> <p>Apply sufficient spray volume to ensure uniform deposition on all plant surfaces; recommend 500 L per ha.</p>
<p>Ginseng</p>	<p>OBLIQUE BANDED LEAFROLLERS</p>	
<p>Garden beets, sugar beets, sweet potatoes</p>	<p>BEET ARMYWORM</p>	
<p>Garden beets, sugar beets</p>	<p>BEET WEBWORM</p>	
<p>On the leaves of horseradish, radish, radish (Oriental), rutabaga, turnip; cultivars, varieties and hybrids of these.</p>	<p>CABBAGE LOOPER            CROSS-STRIPED CABBAGEWORM            DIAMONDBACK MOTH            IMPORTED CABBAGEWORM</p>	<p>500 – 1000</p> <p>Apply sufficient spray volume to ensure uniform deposition on all plant surfaces; recommend 500 L per ha.</p>
<p>Leaves of garden beets and sugar beets.</p>	<p>BEET ARMYWORM            BEET WEBWORM</p>	

CROP	PEST	Rate (g/ha)
BULB VEGETABLES (Crop Group 3-07): Chive, Chinese, fresh leaves; Chive, fresh leaves; Daylily, bulb; Elegans hosta; Fritillaria; Garlic, bulb; Garlic, great-headed, bulb; Garlic, serpent, bulb; Kurrat; Lady's leek; Leek; Lily; Onion, Beltsville bunching; Onion, bulb; Onion, Chinese, bulb; Onion, fresh; Onion, green; Onion, macrostem; Onion, pearl; Onion, potato, bulb; Onion, tree, tops; Onion, Welsh, tops; Shallot, bulb; Shallot, fresh leaves; Wild leek	LEEK MOTH	500 – 1000  Apply sufficient spray volume to ensure uniform deposition on all plant surfaces; recommend 1000 L per ha.

CROP	PEST	Rate (g/ha)
<p>LEAFY GREENS (Sub-Group 4-13A) Amaranth, Chinese; Amaranth, leafy; Aster, Indian; Blackjack; Cat's Whiskers; Cham-chwi; Cham-na-mul; Chervil, fresh leaves; Chipilin; Chrysanthemum, garland; Cilantro, fresh leaves; Corn salad; Cosmos; Dandelion; Dang-gwi; Dillweed, fresh leaves; Dock; Dol-nam-mul; Ebolo; Endive; Escarole; Fameflower; Feather cockscomb; Good King Henry; Huauzontle; Jute leaves; Lettuce, bitter; Lettuce, head; Lettuce, leaf (Romaine); Orach; Parsley, fresh leaves; Plantain, buckhorn; Primrose, English; Purslane, garden; Purslane, winter; Radicchio (Red Chicory); Spinach; Spinach, Malabar; Spinach, New Zealand; Spinach, tree (Giant Lambsquarter); Swiss chard; Tanier spinach; Violet, Chinese</p>	<p>CABBAGE LOOPER BEET ARMYWORM</p>	<p>500 – 1000</p> <p>Apply sufficient spray volume to ensure uniform deposition on all plant surfaces; recommend 500 L per ha.</p>

CROP	PEST	Rate (g/ha)
<p>BRASSICA LEAFY GREENS (Sub-Group 4-13B): Arugula; Broccoli raab; Broccoli, Chinese; Cabbage, Abyssinian; Cabbage, seakale; Chinese cabbage, bok choy; Collards; Cress, garden; Cress, upland; Hanover salad; Kale; Maca; Mizuna; Mustard greens; Radish, leaves; Rape greens; Rocket, wild; Shepherd's purse; Turnip greens; Watercress</p>	<p>CABBAGE LOOPER CROSS-STRIPED CABBAGEWORM DIAMONDBACK MOTH IMPORTED CABBAGEWORM</p>	
<p>BRASSICA HEAD &amp; STEM VEGETABLES (Crop Group 5-13): Broccoli; Brussels sprouts; Cabbage; Cabbage, Chinese, napa; Cauliflower</p>	<p>CABBAGE LOOPER CROSS-STRIPED CABBAGEWORM DIAMONDBACK MOTH IMPORTED CABBAGEWORM</p>	<p>500 – 1000  Apply sufficient spray volume to ensure uniform deposition on all plant surfaces; recommend 500 L per ha.</p>
<p>FRUITING VEGETABLES (Crop Group 8-09): Eggplant; Eggplant, African; Eggplant, pea; Eggplant, scarlet; Garden huckleberry; Goji berry; Groundcherry; Martynia; Naranjilla; Okra; Pepino; Pepper, bell; Pepper, non-bell; Sunberry; Tomatillo; Tomato; Tomato, currant</p>	<p>BEET ARMYWORM CABBAGE LOOPER TOBACCO BUDWORM TOMATO FRUITWORM</p>	<p>500 – 1000  Apply every 5 to 7 days. Apply using 500–1000 L water per ha to ensure full coverage but not to the point of run off.</p>



CROP	PEST	Rate (g/ha)
<p>POME FRUIT (Crop Group 11-09): Apple; Azerole; Crabapple; Mayhaw; Medlar; Pear; Pear, Asian; Quince; Quince, Chinese; Quince, Japanese; Tejocote</p>	<p>CANKERWORMS CODLING MOTH FRUITTREE LEAFROLLER OBLIQUEBANDED LEAFROLLER ORIENTAL FRUIT MOTH REDBANDED LEAFROLLER TUFTED APPLE BUDMOTH VARIEGATED LEAFROLLER WINTER MOTH</p>	<p>500 – 1600</p> <p>Apply using 500-1600 L per ha at pink stage and, if populations are heavy, at petal fall using an air-blast orchard sprayer. Weekly applications may be necessary if egg hatch is asynchronous. Follow general application instructions for subsequent generations, if applicable.</p>
<p>STONE FRUIT (Crop Group 12-09): Apricot; Apricot, Japanese; Cherry, black; Cherry, Nanking; Cherry, sweet Cherry, tart; Chokecherry Nectarine; Peach; Plum; Plum, American; Plum, beach; Plum, Canada; Plum, cherry; Plum, chicksaw; Plum, Damson; Plum, Japanese; Plum, Klamath; Plum, Prune; Plumcot; Sloe</p>	<p>CANKERWORMS FRUITTREE LEAFROLLER OBLIQUEBANDED LEAFROLLER ORIENTAL FRUIT MOTH VARIEGATED LEAFROLLER</p>	<p>500 – 1600</p> <p>Apply using 500-1600 L/ha at pink stage and, if populations are heavy, at petal fall using an air-blast orchard sprayer. Weekly applications may be necessary if egg hatch is asynchronous. Follow general application instructions for subsequent generations, if applicable.</p>

CROP	PEST	Rate (g/ha)
<p>TREE NUTS (Crop Group 14-11): Beech Nut; black walnuts; bur oak nuts; Butternuts; Chestnuts; English walnuts; gingko nuts; Hazel nuts (Filberts); heartnuts; Hickory nut; Japanese horse- chestnuts; monkey puzzle nuts; Pecan; pine nuts; yellowhorn nuts</p>	<p>CANKERWORMS FRUITTREE LEAFROLLER OBLIQUEBANDED LEAFROLLER VARIEGATED LEAFROLLER</p> <p>CODLING MOTH On walnuts, heartnuts and butternuts</p>	<p>500 – 1600</p> <p>Apply sufficient spray volume to ensure uniform deposition on all plant surfaces.</p>
<p>HERBS AND SPICES (Crop Group 19): Anise (anise seed); Balm (lemon balm); Basil; Borage; Burnet; Camomile; Caraway; Caraway, black; Catnip; Celery seed; Chervil (dried); Chive; Chive, Chinese; Coriander (cilantro or Chinese parsley) (leaf); Coriander (cilantro) (seed); Costmary; Cumin; Dill (dillweed); Dill (seed); Fennel (common); Fennel, Florence (seed); Fenugreek; Horehound; Hyssop; Juniper berry; Lavender; Lemongrass; Lovage (leaf); Lovage (seed); Marigold; Marjoram (includes sweet or annual marjoram, wild marjoram or oregano and pot marjoram); Mustard (seed); Nasturtium; Parsley (dried); Pennyroyal; Poppy (seed); Rosemary; Rue; Saffron; Sage; Savory, summer and winter; Sweet bay (bay leaf); Tansy; Tarragon; Thyme; Wintergreen; Woodruff; Wormwood</p>	<p>BEET ARMYWORM CABBAGE LOOPER</p>	<p>500 – 1000</p> <p>Apply sufficient spray volume to ensure uniform deposition on all plant surfaces.</p>

CROP	PEST	Rate (g/ha)
CANOLA POPPY SEED MUSTARD SEED OIL RADISH SWEET ROCKET HARE'S EAR MUSTARD CAMELINA	BERTHA ARMYWORM DIAMONDBACK MOTHS	500 – 1000  Apply sufficient spray volume to ensure uniform deposition on all plant surfaces.
Cardoon, Celery, Chinese Celery, Celtuce, Fennel, Rhubarb, Sea Kale; Cultivars, Varieties and Hybrids of these.	BEET ARMYWORM CABBAGE LOOPER	500 – 1000  Apply sufficient spray volume to ensure uniform deposition on all plant surfaces.
Kohlrabi	CABBAGE LOOPER CROSS-STRIPED CABBAGEWORM DIAMONDBACK MOTH IMPORTED CABBAGEWORM	
ARTICHOKE	BEET ARMYWORM CORN EARWORM	500 – 1000  Apply using up to 1000 L water/ha to ensure full coverage but not to the point of run off.
DRY AND SUCCULENT BEANS	BEET ARMYWORM CORN EARWORM	500 – 1000  Use sufficient spray volume to ensure thorough coverage but not to the point of run off.

CROP	PEST	Rate (g/ha)
GRAPE	GRAPE BERRY MOTH GRAPE LEAFFOLDER GRAPE LEAFROLLER GRAPELEAF SKELETONIZER OBLIQUEBANDED LEAFROLLER OMNIVOROUS LEAFROLLER	500 – 1000  Begin applications at "black head stage" of eggs, 2 days before larvae hatch. The application may be repeated if needed every 7-10 days up to 6 applications per year.
HOPS	HOP LOOPER	500 – 1000  Apply at first sign of infestation when larvae are small using a foliar air-blast sprayer. Use sufficient spray volume to ensure thorough coverage but not to the point of run off.
TOBACCO	TOBACCO BUDWORM, TOMATO FRUITWORM, BEET ARMYWORM	500 – 1000  Apply every 5 to 7 days. Apply using 500–1000 L water per ha to ensure full coverage but not to the point of run off.
OUTDOOR ORNAMENTALS	CORN EARWORM BEET ARMYWORM TOMATO LOOPER	750 – 1000  Use sufficient spray volume to ensure thorough coverage but not to the point of run off.
<b>GREENHOUSE USES</b>		

CROP	PEST	Rate (g/ha)
<b>FRUITING VEGETABLES</b> Tomato Pepper Eggplant	BEET ARMYWORM CABBAGE LOOPER TOBACCO BUDWORM TOMATO FRUITWORM TOMATO LEAFMINER TOMATO LOOPER	500 – 1000  Use sufficient spray volume to ensure thorough coverage but not to the point of run off.
<b>CUCUMBER</b>	BEET ARMYWORM CABBAGE LOOPER CORN EARWORM TOMATO LOOPER	500 – 1000  Use sufficient spray volume to ensure thorough coverage but not to the point of run off.
<b>LEAFY VEGETABLES</b> Lettuce	BEET ARMYWORM CABBAGE LOOPER CORN EARWORM TOMATO LOOPER	500 – 1000  Use sufficient spray volume to ensure thorough coverage but not to the point of run off.
<b>GREENHOUSE LEGUMES</b> Beans	BEET ARMYWORM CABBAGE LOOPER CORN EARWORM TOMATO LOOPER	500 – 1000  Use sufficient spray volume to ensure thorough coverage but not to the point of run off.

CROP	PEST	Rate (g/ha)
GREENHOUSE ORNAMENTALS	CORN EARWORM BEET ARMYWORM TOMATO LOOPER	750 – 1000  Use sufficient spray volume to ensure thorough coverage but not to the point of run off.

#### NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *PEST CONTROL PRODUCTS ACT* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.