
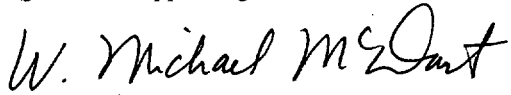


73049-468

12/16/2009

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 <p style="text-align: center;">U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Biopesticides and Pollution Prevention Division (7511P) 1200 Pennsylvania Avenue NW Washington, DC 20460</p> <p style="text-align: center;">NOTICE OF PESTICIDE: <input checked="" type="checkbox"/> Registration <input type="checkbox"/> Reregistration (under FIFRA, as amended)</p>	EPA Reg. Number: 73049-468	Date of Issuance: DEC 16 2009
	Term of Issuance: Unconditional	
	Name of Pesticide Product: VBC - 30102® Plant Growth Regulator Liquid Concentrate	
Name and Address of Registrant (include ZIP Code): Valent BioSciences Corporation 870 Technology Way Libertyville, IL 60048		
<p>Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.</p>		
<p>On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.</p> <p>Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.</p> <p>This product is unconditionally registered in accordance with FIFRA Sec. 3(c)(5) provided you:</p> <ol style="list-style-type: none"> 1. Submit and/or cite all data required for registration/ re-registration of your product under FIFRA section 3(c)(5) and section 4 when the Agency requires all registrants of similar products to submit such data. 2. Revise the EPA Registration Number to read, "EPA Reg. No. 73049-468." 3. Submit within 12 months of the issuance of this Registration Notice, acceptable Storage Stability study (OPPTS GLN: 830.6317) and Corrosion Characteristics study (OPTS GLN: 830.6320) for this product. 4. Submit three (3) copies of the revised final printed labeling before you release the product for shipment. <p>A stamped copy of the label is enclosed for your records.</p>		
Signature of Approving Official:  W. Michael McDavit, Associate Director, Biopesticides and Pollution Prevention Division	Date: DEC 16 2009	

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VBC-30102®
PLANT GROWTH REGULATOR
LIQUID CONCENTRATE

ACTIVE INGREDIENT:	
[S]- <i>trans</i> -2-Amino-4-(2-aminoethoxy)-3-butenic acid hydrochloride	20.0%
OTHER INGREDIENTS.....	80.0%
TOTAL.....	100.0%

EPA Reg. No. 73049-468
EPA Est. 33762-IA-001

Registrant:
Valent BioSciences Corporation
870 Technology Way
Libertyville, IL 60048

Lot No.

Net Weight: 1.67 lb / gallon

One bottle will treat up to 7.6 acres of nut crops at the maximum use rate.
One bottle will treat up to 7.4 acres of cucumber crops at the maximum use rate.
One bottle will treat up to 3.3 acres of pineapple crops at the maximum use rate.

KEEP OUT OF REACH OF CHILDREN
CAUTION

ACCEPTED

DEC 16 2009

Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended, for
the pesticide registered under
EPA Reg. No. 73049-468

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if inhaled or absorbed through skin. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

FIRST AID	
If inhaled	<ul style="list-style-type: none"> --Move person to fresh air. --If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. --Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> --Take off contaminated clothing. --Rinse skin immediately with plenty of water for 15-20 minutes. --Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-892-0099 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-6-Valent.</p>	

PLEASE SEE ATTACHED APPLICATION GUIDE FOR COMPLETE PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE

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

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

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

Hand-wand applicators must wear dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with N, R, P or HE filter when applying this product.

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.

<p>User Safety Recommendations</p> <p>Users should:</p> <ul style="list-style-type: none"> - Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. - Remove clothing immediately if pesticide gets inside. Then, wash thoroughly and put on clean clothing. - Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

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/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 in this labeling 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 12 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

GENERAL INFORMATION FOR USE

IMPORTANT: Before application, read all use directions thoroughly. Use VBC-30102[®] only as directed.

VBC-30102[®] contains 20% (wt/wt) [S]-*trans*-2-amino-4-(2-aminoethoxy)-3-butenic acid hydrochloride, commonly known as aminoethoxyvinylglycine, aviglycine HCl, or AVG. AVG is a potent plant growth regulator produced by fermentation. AVG inhibits the production of ethylene in plant tissues. Ethylene affects plant processes such as flower development, fruit set, fruit maturation, fruit ripening, and fruit abscission.

GENERAL APPLICATION INSTRUCTIONS

- Do not apply this product through any type of irrigation system.
- Because the proper timing of VBC-30102[®] application is particularly important to product performance, serious consideration is to be given, on a block-by-block basis, to any site conditions (e.g., elevation, sun exposure, soil texture), growing

condition(s) (e.g., prevailing or anticipated weather patterns such as high temperature, drought or flood conditions, nutrient levels) or production practices (e.g., crop load, pruning severity) that could impact flowering, fruit set, or fruit maturation during the course of the season.

- Apply VBC-30102[®] in a sufficient amount of water to ensure good coverage of the tree or crop canopy. Product efficacy requires that flowers, fruits, and foliage receive thorough spray coverage. Use calibrated spray equipment to ensure uniform coverage of flowers, fruit, and foliage. Adjust water volumes based on plant size and spacing. Excessive spray application volumes that result in spray runoff will reduce product performance.
- Prepare spray solution by mixing the required amount of product with water in a clean, empty spray tank. Dispose of any unused spray material at the end of each day
- Avoid applications during the heat of the day. For best results, apply VBC-30102[®] under slow drying conditions, e.g. early in the morning or at night, in order to maximize absorption.
- Maintain solution pH between 6 and 8.
- Do not apply VBC-30102[®] to plants under stress (e.g. heat, water, disease, insect). Injured or stressed plants may not respond to VBC-30102[®].
- Do not use overhead cooling or irrigation equipment for at least 8 hours following VBC-30102[®] application.
- Do not apply VBC-30102[®] if rain is expected within 8 hours of application.

COMPATIBILITY WITH OTHER AGRICULTURAL PRODUCTS

VBC-30102[®] can be tank-mixed with DiPel[®], Biobit[®], and Xentari[®] biological insecticides. Compatibility and performance data for VBC-30102[®] with other agricultural products are not available.

PINEAPPLE

CROP	OBJECTIVE / BENEFIT:	APPLICATION TIMING/ USE INSTRUCTIONS
<p>Pineapple</p>	<p>Reduce the incidence of natural induction of flowering in pineapple (NI), also known as Naturally Differentiated Flowering (NDF).</p> <p>Reduction of NDF allows for artificial induction of flowers (forcing) at the appropriate plant maturity to give more uniform flowering and consequently more uniform fruit maturity. This has been shown to result in:</p> <ul style="list-style-type: none"> • larger and more uniform fruit size, and • a more concentrated harvest period. <p>Consult your local Valent USA Agricultural Specialist (800-6-VALENT) for specific information on the best use practices.</p>	<p>Apply VBC-30102[®] directly to foliage of pre-flowering pineapple plants using 50 to 200 ppm AVG active ingredient (a.i.) For best results, make the first application of VBC-30102[®] 7 days prior to the first anticipated occurrence of conditions that favor NDF. Make subsequent applications should be made at 7-14 day intervals when conditions favor NDF. Make up to 10 applications per growing cycle. Use higher rates on cultivars/plantations that experience high incidences of NDF.</p> <p>See Table 1 for determination of VBC-30102[®] application rates.</p> <p>Conditions that favor NDF in pineapple are:</p> <ul style="list-style-type: none"> • cool temperatures (< 68°F); • short photoperiod (< 12 hr); • when pre-flowering plants weigh more than 3.1 lbs. <p>Make the last application of VBC-30102[®] per growing cycle prior to artificial induction of flowers (forcing).</p>
<p>Water Volume: VBC-30102[®] efficacy requires that pineapple plants receive thorough spray coverage. Insufficient spray application volumes or uneven application patterns will reduce product performance. In most cases, a spray volume of 90 to 300 gallons per acre has been shown to be effective.</p>		
<p>Adjuvants: For optimal response, use VBC-30102[®] with Break-Thru[®], RNA Si 100, Silwet L-77[®], or Sylgard[®] 309 organosilicone surfactants. Use a final surfactant concentration of 0.05 - 0.1% (v/v). To reduce foaming, add the adjuvant last and minimize agitation.</p>		
<p>Additional Notes:</p> <ul style="list-style-type: none"> • Apply VBC-30102[®] to pineapple plants prior to flowering. Do not allow spray to drift onto pineapple plants that are in bloom or have fruit. • Combination effects and potential interactions between VBC-30102[®] and other agrochemical products have not been thoroughly tested. Tank-mixing VBC-30102[®] with other agrochemical products may reduce the efficacy of VBC-30102[®]. • Leaf discoloration can occur in some cultivars at high use rates and shorter application intervals. If unacceptable leaf discoloration is noted, reduce concentration of a.i. in subsequent applications. 		

NUT CROPS

CROP	OBJECTIVE / BENEFIT	APPLICATION TIMING/ USE INSTRUCTIONS
<p>Walnut</p>	<p>Increased nut set in cultivars affected by pistillate flower abortion (PFA). Consult your local walnut tree specialist or Valent USA Agricultural Specialist (1-800-6-Valent) for more information.</p>	<p>Apply 250 ml to 500 ml (8.4 fl oz. to 16.8 fl oz.) of VBC-30102[®] (50 to 100 gm AVG HCl)* per acre, as a single application, to trees when most pistillate flowers are receptive to pollination. In most cases, VBC-30102[®] applications at 5 to 30 percent pistillate flower bloom have been shown to be effective. Applications made either too early (pre-bloom) or too late (full bloom or later) will significantly reduce efficacy of the treatment.</p>
<p>Pecan</p>	<p>To increase nut set in cultivars that experience low set in some years. Consult your local pecan tree specialist or Valent USA Agricultural Specialist (1-800-6-Valent) for more information.</p>	<p>Apply 250 ml to 500 ml (8.4 fl oz. to 16.8 fl oz.) of VBC-30102[®] (50 to 100 gm AVG HCl)* per acre, as a single application during bloom time. Applications made either too early (pre-bloom) or too late (after full bloom) will reduce the efficacy of the treatment.</p>
<p>Water Volume: VBC-30102[®] efficacy requires that flower buds and flowers receive thorough spray coverage. To ensure thorough coverage use calibrated spray equipment (i.e. air blast sprayer) and adjust water volumes based on tree size and spacing. Use sufficient water volume to achieve good coverage without excessive runoff. In most cases, 100 to 200 gallons spray volume per acre has been shown to be effective.</p>		
<p>Use of Adjuvants: Use of adjuvants with VBC-30102[®] for bloom applications has not been fully researched. Some adjuvants will cause a bloom thinning effect and will reduce the benefits of VBC-30102[®].</p>		
<p>*Rate: Use higher rates on cultivars/orchards that have experienced high incidences of poor nut set.</p>		

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CUCUMBER (SEED PRODUCTION ONLY)

CUCUMBER (FOR GYNOECIOUS INBRED SEED PRODUCTION OR HYBRID SEED PRODUCTION WITH GYNOECIOUS POLLINATOR)

CROP	OBJECTIVE / BENEFIT	APPLICATION TIMING/ USE INSTRUCTIONS
<p>Cucumber (<i>Cucumis sativus</i>) Gynoecious inbred breeding lines.</p>	<p>Promotion of staminate (male) flowers in gynoecious (female flowering) cucumber-breeding lines for the purpose of producing inbred and hybrid cucumber seed.</p>	<p>Apply VBC-30102[®] directly to gynoecious plants to be converted. Make one to four applications of 250 ppm to 500 ppm active ingredient (a.i.) beginning at early first leaf stage through tenth leaf stage. Use the appropriate skip row technique to achieve desired sex ratio of plants.</p>
<p>Water Volume: Apply VBC-30102 in a sufficient amount of water to ensure good coverage. In most cases, 27 to 54 gallons per treated acre will be sufficient. 250 ml (8.4 fl oz.) of VBC-30102[®] (50 gm AVG HCl) in 27 gallons of spray solution will provide 500 ppm a.i. 250 ml (8.4 fl oz.) of VBC-30102[®] (50 gm AVG HCl) in 54 gallons of spray solution will provide 250 ppm a.i. The application rate and frequency of application will depend on the sensitivity of the individual inbred line to VBC-30102. Transient leaf yellowing will occur at high rates. If unacceptable leaf yellowing is noted, use lower concentrations in subsequent applications.</p>		
<p>Use of Adjuvants: Use of an adjuvant is not optimum. Addition of an adjuvant to VBC-30102 increases the likelihood of leaf yellowing in young cucumber plants.</p>		
<p>Additional Note: Do not reapply VBC-30102 within 24-hours of application. Do not apply more than 500 ml of VBC-30102[®] (100 gm AVG HCl) per acre per season. Use of VBC-30102 on cucumber is for gynoecious breeding line and hybrid seed production only. Do not apply directly to, or allow spray to drift to cucumber crops grown for fresh or processed markets. Fruit from plants treated with VBC-30102 is not to be used for human or animal consumption. Consult your local vegetable specialist or Valent USA Agricultural Specialist (1-800-6-VALENT) for more information.</p>		

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Table 1 – Parts per Million (ppm) of AVG in Spray Tank at Varying Spray Volumes and Amounts of VBC-30102® (AVG HCl) per Acre

Amount of VBC-30102, (AVG HCl)/A	AVG Parts per Million (ppm) at Specified Gallons per Acre (gpa)					
	90 gpa	100 gpa	150 gpa	200 gpa	250 gpa	300 gpa
0.25 pt (118 mL) of VBC-30102® (23.8 gm AVG HCl)	70 ppm	63 ppm				
0.5 pt (237 mL) of VBC-30102® (47.5 gm AVG HCl)	140 ppm	126 ppm	84 ppm	63 ppm	50 ppm	
1 pt (473 mL) of VBC-30102® (95 gm AVG HCl)			167 ppm	126 ppm	100 ppm	84 ppm
2 pt (946 mL) of VBC-30102® (190 gm AVG HCl)					200 ppm	176 ppm

Each pint of VBC-30102® contains 95 gm AVG HCl active ingredient (a.i.)

STORAGE AND DISPOSAL

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

Pesticide Storage: Store product in a cool and dry place. Avoid extended storage conditions at temperatures above 25°C (77°F).

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

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Completely empty container into applicable equipment. If recycling is not available dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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NOTICE TO USER

Warranty and Disclaimer Statement: To the fullest extent permitted by 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. To the fullest extent permitted by law, user assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

Break-Thru[®] is a registered trademark of Goldschmidt Chemical Corporation
RNA Si 100 is a product of RNA Corporation.

Silwet L-77[®] is a registered trademark of Momentive Performance Materials

Sylgard[®] 309 is a registered trademark of Dow Corning Corporation.

Biobit[®], DiPel[®] and XenTari[®] are registered trademarks of Valent BioSciences Corporation.

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