Fruit IPM 8/7/14

Dean Polk, David Schmitt, Atanas Atanassov, and Amy Raudenbush

More on Bifenthrin and Dinotefuran Section 18 Labels: For those growers who have asked for PDF copies of the section 18 labels, they are attached with this newsletter.

PEACH

Oriental Fruit Moth (OFM): Timings for third brood OFM applications are updated as follows:

Third Brood OFM Timing Dates						
			Insecticide Type			
County/Region	Degree Days by 8/6 base 45	Conventional	Intrepid / IGRs	Diamides		
Gloucester – Southern	2603	1 st – past 2 nd –past	1 st – past 2 nd –past	1 st – past 2 nd –past		
Hunterdon – Northern	2276	1 st - past 2 nd - 8/12-8/15	1^{st} - past 2^{nd} - 8/10-8/8/12	1^{st} - past 2^{nd} - 8/9-8/12		

Do not use degree day modeling for the 4th generation when present. We do use a treatment threshold of 5-8 moths per trap during the 4th flight. Adult trap captures should start to increase by next week in southern counties, and shortly thereafter in northern counties.

Tufted Apple Budmoth (TABM): Timings for second generation TABM control are outlined below.

	Conventional,	Conventional,	Intrepid, Rimon	Bt
	Diamides	Diamides		
County Area	AM – 4 middles	EM-2	EM - 2 completes	EM-2
		completes		completes
Southern	$1^{\text{st}} - 8/2 - 8/3; 2^{\text{nd}} - 8/8 - 8/9$	$1^{st} - 8/4 - 8/7$	$1^{st} - 8/7 - 8/9$	$1^{st} - 8/7 - 8/9$
Northern	$1^{st} - 8/12-13$	1 st – 8/16-17	1 st - 8/20-22	$1^{st} - 8/20-22$

Anthracnose: Anthracnose has been appearing in susceptible varieties such as Klondike, White Lady, and Harrow Beauty. This year we observed that PF Lucky 13 also is susceptible to the disease. On susceptible varieties the use of captan in late cover sprays, and QoI (e.g. Pristine; Gem; Merivion) chemistries in preharvest sprays greatly improves control.

APPLE

Tufted Apple Budmoth: See Peach Section above.

Brown Marmorated Stink Bug (BMSB): Trap counts increased this past week in several locations, mostly of nymphs. The use of frequent border sprays for BMSB is showing to be an effective practice to help control this edge related pest.

Woolly Apple Aphid (WAA): WAA colonies are present in a number of orchards. The pest is really an artifact of the use of harsh insecticides targeting BMSB. We have few options for control. Movento is labeled, but has given very poor control when used late in the season. Diazinon is labeled, but can only be used once during the season. Finally, Thionex can still be used . This can only be used up to July 31 of 2015, and there is a 21 day PHI. The diazinon or Thionex options will control the aerial phase of WAA, but the population may come back in the fall.

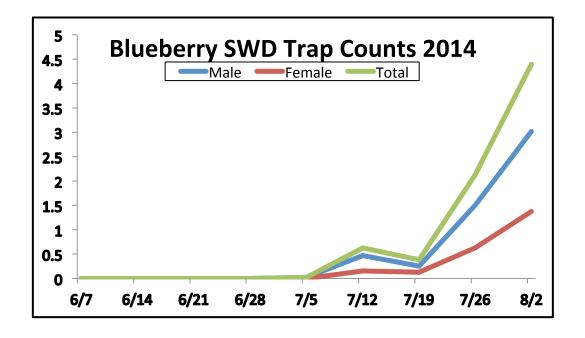
GRAPE

Grape Berry Moth (GBM): Some older second brood larvae were seen last week in Atlantic County. Fresh egg hatch was also present. This indicates that the timing for third brood control was the last of July and first few days of August with IGR's, diamides and Delegate. If using standard OP and pyrethroid materials, this is the last chance for those products

Grape Trap Captures 2014					
Date	GBM	GRB			
7/5	4.3	2.3			
7/13	6.2	7.5			
7/20	.25	18.5			
7/26	.5	14			
8/2	.3	15			

BLUEBERRY

Spotted Wing Drosophila (SWD): Trap counts continue to increase, but at low levels compared to last year. However, this past week still marked a sharp increase in activity. The highest count this past week was 24 flies per trap, while last week the highest catch was 15 flies per trap – see graph. Occasional larvae are being seen in surveyed fruit where sprays have either stopped or the spray interval was stretched out.



Blueberry Maggot (BBM): Adult flies are still being captured at low levels in some fields. A maximum of 3 per trap was found in one Atlantic County trap. Treatments should still be maintained for BBM as well as SWD on any Elliott or other late varieties.

Putnam Scale: Some crawlers are present, but it is still too early to start treatments for the second flight.

Sharpnosed Leafhopper (SNLH): Adult SNLH are also being seen at very low numbers. Treatments for this second generation are still several weeks away.

Blueberry Insect Trap Captures

Bracochy mocet frap capta		
Week Ending	BBM	SNLH
Burlington Co.		
7/26	0.06	0.06
8/2	0.055	0.0
Atlantic Co.		
7/26	0.33	0.0
8/2	0.2	0.0

Tree Fruit Trap Counts – Southern Counties

Week Ending	STLM	TABM_A	СМ	AM	OFM-A	DWB	OFM-P	TABM_P	LPTB	PTB
4/13					0		0			
4/20	14				5		0			
4/27	0				51		1			
5/3	19				51		1			
5/10	41	0	3		36		5	0		
5/17	21	2	12		15		6	4	27	
5/24	1	10	6		6	3	1	7	34	
5/31	1	4	3		10	53	2	28	52	
6/7	1	27	5		9	19	2	21	38	
6/13	0	17	6		5	99	0	75	52	
6/20	0	13	4		5	88	0	11	10	
6/28	13	4	4		5	82	2	3	31	
7/5	0	1	2	0	11	30	0	1	10	
7/13	0	1	2	0	0	23	0	0	30	
7/20	6	1	3	0	0	42	0	1	23	
7/26	34	2	13	0	1	41	1	1	16	8
8/2	149	1	7	0	1	4	2	2	7	10

Tree Fruit Trap Counts – Northern Counties

Week

vveek											
Ending	STLM	TABM-A	CM	AM	OFM-A	DWB	OBLR	OFM-P	TABM-P	LPTB	PTB
4/13	1										
4/20	2							0			
4/27	71.5		0					1.1			
5/3	41		0.0		3.5			1.3			
5/10	91.5	0.0	0.0		31			18.2	0.0	0.0	
5/17	67.5	0.0	4.5		57.7			21.4	0.0	0.0	
5/24	35.5	2.3	5.6		12.7			4.5	1.4	10.4	0
5/31	18.3	5.6	9.3		4.5	1		2.3	6.4	25.8	0.3
6/7	12.5	22.1	7.8		0.3	0.5	0	1	23.9	21.8	0.2
6/14	19.5	39.9	4.9		0	0.3	0	0.2	39.2	15.4	1
6/21	110.3	54.7	3.5		0	0.8	7.5	0.3	47.7	12.5	1.3
6/28	92	42.4	2.1		0	4	16	1.6	43.7	7.2	1.7
7/5	143	32.8	1.8		0.8	2	3.5	5.9	15.7	7.7	3.5
7/13	110	14.7	2.4	0	1	1	1.5	4.1	7.1	7	3.3
7/20	74	4.7	3	0	0	4	1	3.3	1.9	6.7	1.4
7/26	116	0.7	4.6	0	0	1.3	0	1.6	1.2	4.6	0.2
8/2	140.5	2	5.5	0	0	0.7	0.5	4	2.8	2.4	3

RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certificate



Section 18 **EXEMPTION**

FOR DISTRIBUTION AND USE ONLY IN NEW JERSEY

EPA File Symbols: 14-NJ-03 (apples), 14-NJ-04 (peaches), 14-NJ-05 (nectarines)

EMERGENCY CALLS: 800-331-3148

ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE REGISTERED PRODUCT LABEL FOR BRIGADE WSB (EPA REG. NO. 279-3108) ARE TO BE FOLLOWED

THESE DIRECTIONS FOR USE MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF PESTICIDE APPLICATION.

This exemption is effective from July 3, 2014 through October 15, 2014

Crop	Pest Controlled	Rate of Application
Apples, Peaches, Nectarines	Brown Marmorated Stinkbug	12.8 - 32 oz/A (0.08 - 0.2 lb ai/acre)

Directions for Use: Application must be made post-bloom, by ground only as a dilute (minimum 200 gallons of finished spray per acre) or concentrate (minimum 50 gallons of finished spray per acre) in sufficient water to provide thorough coverage. Do not apply this product until after petal fall.

Restrictions: Do not apply more than 32 oz/acre (0.2 lb ai/acre) per application. Do not apply more than 72 oz/A (0.5 lb ai/acre) per year. Do not make applications less than 30 days apart. Do not graze livestock in treated areas. Do not apply within 14 days of harvest. Do not allow entry into treated areas for 12 hours following application.

Any adverse effects resulting from the use of Brigade WSB under this emergency exemption must be immediately reported to the New Jersey Department of Environmental Protection.

NJ Reg. #s:

Section18-2014-NJ-03 (for apples) Section18-2014-NJ-04 (for peaches) Section18-2014-NJ-05 (for nectarines)



FMC Corporation Agricultural Products Group 1735 Market Street Philadelphia, PA 19103

SECTION 18 EMERGENCY EXEMPTION

FOR USE AND DISTRIBUTION ONLY WITHIN THE STATE OF NEW JERSEY

FOR CONTROL OF BROWN MARMORATED STINK BUGS IN POME AND STONE FRUIT.



EFFECTIVE DATE: 7-3-2014 EXPIRATION DATE: 10-15-2014

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- All applicable directions, restrictions, Worker Protection Standard (WPS) requirements, and precautions on the federally registered product label for Scorpion 35 SL Insecticide (EPA Reg. No. 10163-317), as well as the Section 18 directions, must be followed.
- This label must be in the possession of the user at the time of pesticide application.
- Do not use Scorpion 35 SL Insecticide on pome and stone fruit after the expiration date of 10-15-2014.



Do not apply this product while bees are foraging. This compound is highly toxic to honey bees. The persistence of residues and potential residual toxicity of dinotefuran in nectar and pollen suggests the possibility of chronic toxic risk to honey bee larvae and the eventual instability of the hive. This product is toxic to bees exposed to residues for more than 38 hours following treatment.

DIRECTIONS FOR USE

Direction fo	Direction for use on Pome and Stone Fruits					
PEST	RATE FL. OZ./A	REMARKS	RESTRICTIONS			
Brown Marmorated Stink Bug	8 - 12 fl oz/A (0.203 lbs - 0.304 lbs ai/A)	Use adequate spray volumes to insure complete coverage. Higher water volumes may provide improved insect control. Begin application when field sampling indicates pest activity. Use higher label rates when pest pressure	Restriction: Do not apply more than a total of 24 fl oz/A of SCORPION 35SL INSECTICIDE (0.608 lb ai/A) per season. Do not make more than 2 applications per acre per season of this product or other products containing dinotefuran. Do not apply this product until after petal fall.			
		increases and especially when adults are actively migrating into the orchard. Repeat as needed to maintain control, but not more often than every 7 days.	Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.			
		SCORPION 35SL INSECTICIDE may be tank mixed and/or alternated with other approved insecticides. To reduce the potential for resistance, use a recommended IPM program consisting of varying modes of action.	 Foliar Application Only Apply with ground equipment in adequate water to obtain uniform coverage (For best results, use at least 50 gallons/acre for ground applications). Do not apply SCORPION 35SL INSECTICIDE within three (3) days of harvest. 			

Scorpion® is a registered trademark of Gowan Company, LLC.

EPA Reg. No. 10163-317
EPA File Symbol: 14NJ01 (pome fruit);
14NJ02 (stone fruit)
NJ Reg. No. SECTION18-2014-NJ-01 (pome fruit)
NJ Reg. No. SECTION18-2014-NJ-02 (stone fruit)



Gowan Company P.O. BOX 5569

Yuma. AZ 85366-5569



Section 18 Exemption

RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators, or persons under their direct supervision, and only for the uses covered by the certified applicator's certification.

For distribution and use only in New Jersey under an emergency exemption authorized under Section 18 of FIFRA

EPA FILE SYMBOL: 14-NJ-03 (Apples), 14-NJ-04 (Peaches), 14-NJ-05 (Nectarines)
NJ Reg. #: Section 18-2014-NJ-03 (apples), Section 18-2014-NJ-04 (peaches), Section182014-NJ-05 (nectarines)

Bifenture® 10DF Insecticide/Miticide

EPA Reg. No. 70506-227

All applicable directions, restrictions, and precautions on the EPA registered product labels as well as those on these directions for use must be followed. These directions for use must be in the possession of the user at the time of pesticide application. Any adverse effects resulting from the use of this product under this emergency exemption must be immediately reported to the New Jersey Department of Environmental Protections.

This exemption is effective July 3, 2014 through October 15, 2014. APPLES, PEACHES, NECTARINES

PEST CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Brown Marmorated Stink Bug (Halyomorpha halys)	12.8-32.0 ozs/A (0.08-0.20 lbs. ai)	By Ground Only: Apply as a dilute spray (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre). Use higher rates under heavy insect pressure. For best control thorough coverage is necessary. Apply as necessary to maintain control using a minimum of 30-day spray intervals. Applications should be applied when populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area. Restrictions: Do not apply more than 80 ozs. (0.50 lbs ai) per acre per season. For all bifenthrin products used, do not apply more than a total of 0.50 lbs. ai/acre per season. Do not apply this product until after petal fall. Do not allow entry into treated areas for 12 hours following application (REI = 12 hours). Do not graze livestock in treated orchards or cut treated cover crops for feed.	14



Section 18 Exemption

RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

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For distribution and use only in New Jersey under an emergency exemption authorized under Section 18 of FIFRA

EPA FILE Symbol: 14-NJ-03 (Apples), 14-NJ-04 (Peaches), 14-NJ-05 (Nectarines)
NJ Reg. #: Section 18-2014-NJ-03 (apples), Section 18-2014-NJ-04 (peaches), Section182014-NJ-05 (nectarines)

Bifenture[®] EC Agricultural Insecticide

EPA Reg. No. 70506-57

All applicable directions, restrictions, and precautions on the EPA registered product labels as well as those on these directions for use must be followed. These directions for use must be in the possession of the user at the time of pesticide application. Any adverse effects resulting from the use of this product under this emergency exemption must be immediately reported to the New Jersey Department of Environmental Protections.

This exemption is effective July 3, 2014 through October 15, 2014.

APPLES, PEACHES, NECTARINES

PEST CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Brown Marmorated Stink Bug (Halyomorpha halys)	5.12-12.8 fl. ozs./A (0.08-0.20 lbs. ai)	Ry Ground Only: Apply as a dilute spray (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre). Use higher rates under heavy insect pressure. For best control thorough coverage is necessary. Apply as necessary to maintain control using a minimum of 30-day spray intervals. Applications should be applied when populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area. Restrictions: Do not apply more than 32 fl. ozs. (0.50 lbs ai) per acre per season. For all bifenthrin products used, do not apply more than a total of 0.50 lbs. ai/acre per season. Do not apply this product until after petal fall. Do not allow entry into treated areas for 12 hours following application (REI = 12 hours). Do not graze livestock in treated orchards or cut treated cover crops for feed.	14



Section 18 Exemption

Restrictions: This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the high mean water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters.

This product is highly toxic to bees exposed directly to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

Section 18 Recommendation





For use in connection with an emergency exemption authorized under the provisions of Section 18 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended.

For the control of brown marmorated stink bug (*Halyomorpha halys*) on pome fruit and stone fruit in the state of New Jersey.

Effective use date: 7-03-2014

Expiration date: 10-15-2014

EPA Reg. No. 59639-135

EPA File Symbol: 14-NJ-01 (Pome Fruit)

14-NJ-02 (Stone Fruit)

NJ Reg. #: SECTION18-2014-NJ-01 (Pome Fruit)

SECTION18-2014-NJ-02 (Stone Fruit)

Venom Insecticide is a soluble dispersible granule with a 70% concentration of the active ingredient dinotefuran

DIRECTIONS FOR USE

Directions, restrictions and precautions on the registered product label for *Venom* Insecticide® (EPA Registration Number 59639-135) must be followed.

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

Always read and follow all label directions, restrictions and precautions when using any pesticide alone or in tank mix combinations. The most restrictive labeling applies when using a tank mix.

Venom Insecticide is toxic to bees exposed to direct treatment or to residue on blooming crops and weeds. Do not apply *Venom* Insecticide® or allow it to drift onto blooming plants if bees are actively foraging in the treated area.

This section 18 label contains directions for use that do not appear on the EPA registered label of *Venom* Insecticide®. Please refer to the production label for additional information.

Pome fruit

PESTS	PRODUCT RATE
Brown marmorated stink bug	FOLIAR:
-	4 to 6.75 oz/A
	(0.179 to 0.302 lb ai/A)
	· ·

Stone fruit

PESTS	PRODUCT RATE
Brown marmorated stink bug	FOLIAR: 4 to 6.75 oz/A
	(0.179 to 0.302 lb ai/A)

Foliar Application

- Apply with ground equipment in adequate water for uniform coverage (a minimum of 50 gals/A).
- Do not apply *Venom* Insecticide within three (3) days of harvest
- Apply a maximum of 2 applications per acre per season with a minimum 7-day application interval.
- Do not apply more than a total of 13.5 oz of *Venom* Insecticide or products containing dinotefuran (0.604 lb ai) per acre per season.
- Venom Insecticide has a REI of 12 hours
- Refer to label for necessary PPE to handle this product
- Do not apply this product until after petal fall. This compound is highly toxic to honeybees. The persistence of residues and potential residual toxicity of dinotefuran in nectar and pollen suggests the possibility of chronic toxic risk to honeybee larvae and the eventual instability of the hive. This product is toxic to bees exposed to residuest for more than 38 hours following treatment.

Special Instructions

Stink bugs: Coverage is essential for adequate control. Use sufficient water volume to ensure good coverage.

Venom Insecticide may be tank mixed with other insecticides for better knockdown and/or improved control of pests. Use higher rates when stink bugs are actively migrating from neighboring fields.

This labeling must be in possession of the user at the time of pesticide application.

Please contact Valent U.S.A. Corporation at 1-800-6-VALENT (682-5368) to determine if this product is registered in your state.

Registrant: Valent U.S.A. Corporation

P.O. Box 8025

Walnut Creek, CA 94596-8025