TABLE 1. EFFICACY OF INSECTICIDES AGAINST ADULTS OF BROWN MARMORATED STINK BUG (DIRECT CONTACT MORTALITY BIOASSAYS)

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Active ingredient	**Product/ rate tested**	**% direct mortality at 24/72 h after**	**Number of applications /season** *Stone fruit; Pome fruit*	***PHI, seasonal max, other comments***
Neonicotinoid insecticides (IRAC Group 4A)				
acetamiprid	**Assail** 35SG 6.0 oz	87/87	Stone - 4 app., Pome-4 app.	7 days PHI on stone and pome fruit; max 32.0 oz of product/season,
clothianidin	**Belay** 6.0 oz	100/100	Peach - 2 app., Pome -2 app.	21 days PHI on peach, 7 days PHI on pome fruit; max 12.0 fl oz of product/season; Not registered on nectarines
dinotefuran	**Scorpion** 35 SL 5.0 oz	97/98	Stone – 2 app., Pome - 2 app.	3 days PHI on stone and pome fruit, max 0.608 active ingredient per season, Section 18 emergency registration
	Venom 3.0 fl oz	93/98	Stone – 2 app., Pome - 2 app.	3 days PHI on stone and pome fruit, max 0.604 active ingredient per season, Section 18 emergency registration
imidacloprid	**Admire Pro** 7.0 oz	82/87	Stone - 1 app., Pome - 1 app.	21 days PHI on stone and pome fruit; max 0.38 lb/ac active ingredient (10.5 fl oz of product) /season.
	Leverage 360 2.8 oz *(mix)*	95/93	Stone - 1app., Pome - 1 app.	7 days PHI on stone and pome fruit, includes pyrethroid beta- cyfluthrin; max 0.044 lb AI; (2.8 fl oz of product)/season.
thiacloprid	**Calypso** 8.0 fl oz	58/52	Pome only - 2 app.	30 days PHI on pome fruit; max 16.0 fl oz of product/season, Not registered on stone fruit
thiametoxam	**Actara** 5.0 oz	77/95	Stone – 2 app., Pome - 3 app.	14 days PHI on stone fruit, 35 days PHI on pome fruit, max 11.0 oz/season on stone, 16.5 oz on pome fruit; no more than 0.25 lb AI/ac per season on PF, 0.17 lb AI/ac on SF
	Endigo 5.0 oz *(mix)*	98/100	Stone - 3 app., Pome - 4 app.	14 days PHI on stone, 35 days PHI on pome fruit, See max AI comments for Actara and Warrior (Mixture of thiamethoxam and lambda-cyhalothrin)
	Voliam Flexi 6.0 oz *(mix)*	100/100	Stone - 2 app., Pome - 2app.	14 days PHI on stone, 35 days PHI on pome fruit; See max AI comments for Actara. (Mixture of chloratraniliprole and thiametoxam)

Carbamate insecticides (IRAC Group 1A)				
methomyl	**Lannate SP** 9.0 oz	88/99	Peach - 6 app., nectarine - 3 app., Apple – 5 app.	4 days PHI on peaches, 14 days PHI on apples, 1 day PHI on nectarines; max 5 lb of product/acre/season on apple; max 6 lb on peach and max 3 lb on nectarines; Rate response, for effective BMSB control use no less than 9 oz/acre
	Lannate LV 2.0 pt	88/90	Peach - 6 app., - Apple - 5 app.	4 days PHI on peaches, 14 days Phi on apples; max 15 pints/ac/season on apple, 18 pints per ac/season on peaches; Not registered for use on nectarines in PA.
oxamyl	**Vydate** 6.0 pt	68/73	Apple - 1 app.	14 days PHI on apples, Thinning caution
Pyrethroid insecticides (IRAC Group 3)				
fenpropathrin	**Danitol** 16.0 oz	93/87	Stone - 2 app., Pome - 2 app.	3 days PHI on stone fruit, 14 d PHI on pome fruit; max 42.67 fl oz of product per acre/season.
lambda-cyhalothrin	**Warrior II** 2.5 oz	73/72	Stone - 4 app., Pome - 4app.	14 days PHI on stone fruit, 21 days PHI on pome fruit, No more than total of 0.16 lb AI per acre/ season
	Lambda-Cy 4.4 oz	52/40	Stone - 5 app., Pome - 5 app.	14 days PHI on stone and 21 days PHI on pome fruit, No more than total of 0.16 lb AI per acre/season
	Voliam Xpress 10.0 fl oz *(mix)*	40/40	Stone - 4 app., Pome -4 app.	Mixture of chlorantriniprole and lambda-cyhalothrin. See comments on Warrior
	Endigo 5.0 oz *(mix)*	98/100	Stone - 3 app., Pome - 4 app.	Mixture of thiamethoxam and lambda-cyhalothrin. See comments on Actara and Warrior
Cyclodiene organochlorines (IRAC Group 2A)				
endosulfan	**Thionex** 4.0 lb	52/98	Nectarine and peach - 2 app., apple - 3 app	30 day PHI on nectarine, peaches and apple; max 5.0 lb of product per acre/season; 20 days restricted entry interval (REI)

Other tested insecticides with a direct adult BMSB percent mortality lower than 50 percent:
Altacor @ 3 oz; **Asana** @ 14 oz; **Avaunt** @ 6 oz; **Baythroid XL** @ 2.8 oz; **Beleaf** @ 2.8 oz; **Delegate** @ 7 oz; **Diazinon** 50 W @ 3 lb; **Esteem** @ 5 oz; **Guthion** @ 2 lb; **Imidan** @ 4 lb; **M-Pede** @ 2 %; **Neemix** 4.5 @ 16 oz; **Pounce 25 WP** @ 16 oz; **Rimon** @ 30 oz; **Sevin** XLR Plus @3 pt; **Stylet oil** @ 2 %.

All direct contact mortality based on adult BMSB mortality observed after application of 2 µl of insecticide solution per individual SB. For each mortality assessment timing, all dead and moribund adults were group together as "dead".

(Results of laboratory bioassays conducted during the winter 2010/2011)

Always read and follow the most current pesticide label !!!