

Overview semi-field studies

Applicant Bayer

Erg lange tabel, indien mogelijk splitsen, bijvoorbeeld met en zonder synergisme, zaadbehandeling en spray,...

Author	(5.1.2.e 1997)	(5.1.2.e 2000)	(5.1.2.e 2002)	(5.1.2.e 2012)	(5.1.2.e 2010)	(5.1.2.e et al. 2003)	(5.1.2.e 2003)	5.1.2.e 2009)	5.1.2.e	5.1.2.e	5.1.2.e
Report number	5.1.2.e	REG02-0010	5.1.2.e	S10-03819-01	S09-02422	5.1.2.e	5.1.2.e/AM 030	5.1.2.e/AM 031	IA06DVG059G0 01-1	IA06DVG059 G001-2	IA06DVG059G0 01-3
Edition number	M-000861-01-1	M-036544-01-2	M-054090-01-1	M-442217-01-1	M-385049-01-1	M-110619-01-1	M-116974-01-1	M-116975-02-1	M-281054-01-1	M-281117-01-1	M-281125-01-1
Test facility	5.1.2.e		5.1.2.e			5.1.2.e					
Guideline	-	-	OEPP/EPPO 170(3), 2001			-	OEPP/EPPO 170(3), 2001	OEPP/EPPO 170(3), 2001	OEPP/EPPO 170(3), 2001	OEPP/EPPO 170(3), 2001	OEPP/EPPO 170(3), 2001
Test species	<i>B. terrestris</i>	<i>B. terrestris</i>	<i>A. mellifera</i>	<i>A. mellifera</i>	<i>A. mellifera</i>	<i>A. mellifera</i>	<i>A. mellifera</i>	<i>A. mellifera</i>	<i>A. mellifera</i>	<i>A. mellifera</i>	<i>A. mellifera</i>
Population-Hive size		Appropriate but not further specified									
crop	Greenhouse tomatoes	Greenhouse tomatoes	<i>Brassica napus</i>		Maize	Oilseed rape or <i>P. tanacetifolia</i>	Oil seed rape	Oil seed rape	<i>P. tanacetifolia</i>	<i>P. tanacetifolia</i>	<i>P. tanacetifolia</i>
Applications											
Treatments	Control, YRC2894 30WG	Control, Calypso 480 SC and	Control, Thiacloprid OD 240,	Thiacloprid OD 240	Thiacloprid FS 400	3 tests with spec. combination	Thiacloprid OD 240 plus Prothioconazole	Thiacloprid OD 240 plus Prothioconazole	Thiacloprid OD 240 plus Tebuconazole	Thiacloprid OD 240 plus Prothioconazole	Thiacloprid OD 240 plus Prothioconazole

Commented [512e]: opzet is gelijk, Controle lijkt dezelfde als uit 5.1.2.e 2003. Op gelijke datum uitgevoerd. Eindpunten egg laying, larva and pupal abundance zijn hier niet in meegenomen. Bij treatments verschillen in replica's . Pag 8 is een ammendment. De originele studie is niet meegeleverd. Ik dacht eerst dat dat 5.1.2.e 2003 zou moeten zijn maar dat kan niet omdat bij deze ook tebuconzole in de tank mix zit.

		BSN 2060 240 SC	toxic standard triazophos			s: Control, Thiacloprid, Thiacloprid + tebuconazole, tebuconazole	ole EC 250	& Tebuconazole EC 250	EW 250	e EC 250 + Lambda- Cyhalothrin CS 100	EC 250 + Alpha- Cypermethrin SC 100
Actives	thiacloprid	thiacloprid and spiromesifen	thiacloprid, dimethoate	thiacloprid	thiacloprid	thiacloprid, tebuconazole	Thiacloprid, prothioconazole	Thiacloprid, prothioconazole , tebuconazole	Thiacloprid, tebuconazole	Thiacloprid, prothioconazole + lambda- cyhalothrin	Thiacloprid, prothioconazole, alpha-cypermethrin
Test concentration	150 ppm	Thiacloprid 0.03% and spiromesifen 0.06%	73.19 g as/ha	72 g/ha			tank-mix of 96 g a.s. thiacloprid/h a + 175 g prothioconazole/ha applied in 200 L water/ha	tank mix of 0.4 l/ha (Thiacloprid OD 240) and 1.0 l/ha (Prothioconazole & Tebuconazole EC 250) in 200 l water/ha	tank-mix of 72 g a.s. thiacloprid/ha + 375 tebuconazole/ha applied in 200 L water/ha	tank-mix of 72 g a.s. thiacloprid/ha + 175 prothioconazole/ha + 5 g lambda- cyhalothrin/ha applied in 200 L	tank-mix of 72 g a.s. thiacloprid/ha + 175 prothioconazole/ha + 7.5 g alpha- cypermethrin/ha applied in 200 L water/ha
Type of application (foliage, soil, seed)	Foliar spray	Foliar spray	Foliar spray		Seed treatment	Foliar spray	Foliar spray	Foliar spray	Foliar spray		
Nr. of applications (interval)	1	2 (... d)									
BCCH			Full flowering			Full flowering	Full flowering	Full flowering	Full flowering		
Timing applications						during daytime when bees were actively foraging on the crop	during daytime when bees were actively foraging on the crop	during daytime when bees were actively foraging on the crop	during daytime when bees were actively foraging on the crop	during daytime when bees were actively foraging on the crop	during daytime when bees were actively foraging on the crop
Exposure											
Exposure duration [d]	15			7							
Test duration in tunnel [d]				12							

Commented [512e]: dit graag in g/ha, indien mogelijk

Commented [512e]: idem, ook graag in g/ha

Post exp. Monitoring [d]				16						
Results										
Sampling points	<u>aantal ook aangeven?</u> 7 DBT -15DAT									
Mortality waar? (niet in bee traps blijkbaar) Indien mogelijk: % tov controle			x Voor alle effectparameters: liever beschrijving ipv x, net als bij flupyra, het is anders niet duidelijk hoe groot en hoe lang het effect is/duurde							
Flight intensity	x	x	x				x			
Pollinating activity		x								
Bee mortality in bee traps linen sheets										
Number of bees in hive?										
Development of brood			x							
Development of food storage area										
Development colony <u>hoe is dit gemeten, anders dan brood en aantal bijen en voedselopslag?</u>	x	x					x			
Presentation condition of colonies		table								
Behaviour ...							x			
Statistics for mortality and flight intensity		yes	yes				yes			

Commented [512e]: Dit is meer een vormkwestie, geen effect op de bijen. Elders opnemen in deze tabel, iig na behaviour? Of weghalen, aangezien je zelf de ontbrekende figuren maakt indien nodig?

Commented [512e]: We hebben dit nog niet besproken. Als jullie zelf de statistiek doen als die ontbreekt in het rapport, dan is dit punt ook meer een vormkwestie en kan het mogelijk weg. Als statistische analyse niet mogelijk is, dan is het wel nuttig om dit hier aan te geven.

Statistics for brood and food storage ¹ <small>waar verwijst deze naar?</small>	no	yes	No, resultaten zijn niet te vinden?								
Effect op??	no										
Remarks		BSN 2060 240 SC, to be used on fruiting vegetables and ornamentals in greenhouses at doses of 0.144-0.216 kg as/ha (EFSA conclusion)		hours							
Hours necessary for summary evaluation	2	2	8			8					

DBT = days before treatment
DAT = days after treatment

Commented [512e]: 5.1.2.e

Commented [512e]: Ik snap deze opmerking niet, bedoel je dat dit de formulering is die in de DAR beoordeeld is? Dan dat graag opnemen.

Commented [512e]: Hoeft niet in het uiteindelijke rapport lijkt me.

Voorbeeld flupyridifurone

Specifications and endpoint of the studies	Number of the field study					
	10.4.7/01	10.4.7/02	10.4.7/03	10.4.7/04 !	10.4.7/05	10.4.7/06
Authors	5.1.2.e 2012	5.1.2.e 20102	5.1.2.e 2012	5.1.2.e 2012	5.1.2.e 2012	5.1.2.e 2012
Guideline	OEPP/EPPO guideline No. 170 (3), 2001	OEPP/EPPO guideline No. 170 (3), 2001	OEPP/EPPO guideline No. 170 (3), 2001	OEPP/EPPO guideline No. 170 (3), 2001	OEPP/EPPO guideline No. 170 (4), 2010	OEPP/EPPO guideline No. 75 (2007)
Test facility	5.1.2.e					
Nr of applications	1	1	2	3	3	2

Type applications	1x foliar spray	1x foliar spray	2x foliar spray (10 d apart)	1x soil application, 2x foliar spray (7 d apart)	1x soil application, 2x foliar spray (18 d apart)	2x foliar spray (10 d apart)
Timing application	during flowering and active foraging of bees	during flowering and active foraging of bees	1s foliar application 6 d before hive set-up, 2 nd foliar application 10 d after 1st application during flowering and active foraging of bees	1st foliar application 4 d before hive set-up 2 nd foliar application 7 d after 1st foliar application (3 d after hive set-up) during flowering and active foraging of bees	1st foliar application 14 d before hive set-up, 2 nd foliar application 4 d after hive set-up during flowering and active foraging of bees	1st foliar application 5 d before hive set-up and 2 nd foliar application 5 d after set-up during flowering and active foraging of bees
Exposure duration	7 d	12 d	16 d	10 d	12 d	12 d
Ranking worst case exposure	6	5	3	1 – however unequal colony setup	4	2
Flight intensity	Similar to control	Similar to control	Reduction, significant	Cannot be evaluated	Strong reduction, significant	Strong reduction, significant
Bee mortality in bee traps linen sheets	Similar to control	Similar to control	No apparent increase of mortality	cannot be evaluated	No apparent increase of mortality	No apparent increase of mortality
Number of bees	Similar to control, Decrease caused by limited forage	Similar to control, Decrease caused by limited forage	More or less equal to control	cannot be evaluated	Small decrease explained limited foraging area. Further comparable to the control	Small decrease explained limited foraging area. Further comparable to the control
Development of brood	Similar to control, same level during confinement, increase afterwards	Similar to control, same level during confinement, increase afterwards	Decreases during confinement and increases afterwards, similar to control	cannot be evaluated	Decreases during confinement and increases afterwards, similar to control	Decreases during confinement and increases afterwards, similar to control
Development of food storage aria	Increase pollen and nectar stores similar to control	Increase pollen and nectar stores similar to control	Decreases during confinement similar to the control, increases after confinement	cannot be evaluated	Decreases during confinement and increases afterwards, similar to control	Decreases during confinement and increases afterwards, similar to control
Presentation condition of colonies	Figures for nectar, pollen etc. individually	Figures for nectar, pollen etc. individually	Tables Stack figures prepared by RMS	Tables Stack figures prepared by RMS	Tables Stack figures prepared by RMS	Stacked figures
Behaviour	Not reported	Not reported	normal	Clustering but further normal	Clustering and repellence effect	Intoxication symptoms, repellence effect and
remark			No obvious higher mortality outside the hive can be related to decrease of flight intensity	Unequal colony set-up, therefore most endpoints cannot be evaluated.	No obvious higher mortality outside the hive can be related to decrease of flight intensity	No obvious higher mortality outside the hive can be related to decrease of flight intensity
Statistics for mortality and flight intensity	no	no	yes	yes	yes	yes
Statistics for brood	no	no	no	no	no	no

and food storage!						
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5.1.2.e (2000). Effect of the application of Calypso 480 SC and BSN 2060 240 SC on pollinating bumblebees (*Bombus terrestris*) on greenhouse tomatoes. 5.1.2.e

5.1.2.e (2002). Assessment of side effects of Thiacloprid OD 240 on the honey bee (*Apis mellifera* L.) in the semi-field. 5.1.2.e
5.1.2.e

5.1.2.e (2009). First Amendment to Study Report. Evaluation of the effects of a tank mixture of Thiacloprid OD 240 plus Prothioconazole EC 250 in summer rape on honeybees (*Apis mellifera*) in the semifield.

5.1.2.e (2003). Evaluation of the effects of a tank mixture of Thiacloprid OD 240 plus Prothioconazole EC 250 in summer rape on honeybees (*Apis mellifera*) in the semifield.

5.1.2.e (1997). Influence of YRC 2894 30WG 150 ppm by foliar spray on foraging activity of bumblebees (*Bombus terrestris*) in greenhouse tomatoes. 5.1.2.e

5.1.2.e (2010). Thiacloprid FS 400: A semi-field study with Thiacloprid FS 400 treated maize seed, investigating potential effects to exposed honeybee colonies in Northern Germany. 5.1.2.e

5.1.2.e (2012). Determination of side-effects of thiacloprid OD 240 on honey bee (*Apis mellifera* L.) brood under confined semi-field conditions. 5.1.2.e

Schmuck, R., T. Stadler, et al. (2003). "Field relevance of a synergistic effect observed in the laboratory between an EBI fungicide and a chloronicotinyl insecticide in the honeybee (*Apis mellifera* L, Hymenoptera)." *Pest Management Science* **59**(3): 279-286.

5.1.2.e et al. (2006a). Evaluation of the effect of a tank mixture of Thiacloprid OD 240 + Tebuconazole EW 250 on honeybees (*Apis mellifera*) in a semifield test in *Phacelia tanacetifolia*.

5.1.2.e

et al. (2006b). Evaluation of the effect of a tank mixture of Thiacloprid OD 240 + Prothioconazole EC 250 + Lambda-Cyhalothrin CS 100 on honeybees (*Apis mellifera*) in a semifield test in *Phacelia tanacetifolia*.