2016 Termiticide Efficacy Trial Summary from USDA-FS, Shelton, et. al. Data Tables 1 and 2

This is the final report for this group of products as they have now all been "closed". This is the same data as is referenced in the 2019 report:

Table 1.										
(CS) and g										
Efficacy R										of cycle.
Control = p	percentage	e of all u	ntreated	l plots at	tacked	over the	life of t	T	2011 	
	TT (Arizona		Florida		Mississippi		South Carolina		FL SE
0/ A T										
% A.I.	Test	EPA	FL	EPA	FL	EPA	FL	EPA	FL	States
Bifenthrin								1	1	
0.031	CS	0	9	4	11	2	5	2	4	4
0.062 ^{††}	CS	16	16	22	22	7	7	10	16	10
0.125 ^{††}	CS	10	15	9	25	2	7	24	25	9
0.25	CS	25	25	25	25	16	17	25	25	25
0.5	CS	6	23	25	25	18	24	25	25	25
0.031	GB	6	7	4	5	2	2	3	4	4
0.5	GB	10	11	14	21	12	15	8	11	14
Control	CS	52%		68%		51%		59%		-
Control	GB	68%		86%		74%		84%		-
Cypermet	hrin (stud	ly estab	lished 1	982 and	l closed	2004)				
0.125	CS	ľ 1	4	0.5	1.5		3	2	2	2
0.25 ^{††}	CS	4	4	10.5	12.5	3	5	4	4	4
$0.5^{\dagger \dagger}$	CS	4	5	4.5	9.5	7	14	12	12	11.5
1.0	CS	8	10	7.5	21.5	6	15	12	16	15
1.0	GB	3	6	4.5	4.5	5	5	5	6	5
Control	CS	62%		66%		50%		60%		-
Control	GB	73	3%	75%		85%		88%		-
Permethri	n – Dragi	net (stud	ly estab	lished 1	978 an	d closed	1 2004)			
0.25	CS	8	10	2	2	1	2	0.5	0.5	1
0.5 ^{††}	CS	13	19	4	4	5	6	4.5	4.5	4.5
$1.0^{\dagger\dagger}$	CS	15	15	15	25	5	8	10.5	11.5	10.5
$1.0^{\dagger\dagger}$	GB	9	11	6	6	2	3	0.5	3.5	3
Control	CS	50%		55%		60%		53%		-
Control	GB	43%		78%		86%		84%		-
Permethri		edo (stu	dy estal	blished	1980 ar	d close	d 2011).	Contro	ols same	as
cypermeth	-	,	•							
0.25	CS	9	9	3	7	2	2	0.5	0.5	1.5
0.5 ^{††}	CS	11	13	6	9	3	5	1.5	4.5	5
$1.0^{\dagger\dagger}$	CS	19	31	25	27	3	7	6.5	7.5	7
0.5 ^{††}	GB	4	4	4	4	1	1	1.5	1.5	1.5
$1.0^{\dagger \dagger}$	GB	8	9	5	5	2	2	1.5	1.5	1.5

[†] **EPA**: years with no penetration through treated soil in any plot.

FL: years with no annual damage more severe than ASTM 9 to blocks or boards on 90% or more of the plots per site (each annual evaluation stands alone, not cumulative). **FL SE States**: years with no annual damage more severe than ASTM 9 to blocks or boards on 90% or more of the plots across the southeastern sites (damage ratings are annual, not cumulative).

^{††} Registered label rates.

Table 2. Number of years that nonrepellent termiticides remained effective in concrete-slab (CS) and groundboard (GB) tests on four field sites applying the EPA guideline and Florida Efficacy Rule.[†] Fractions of years occurred when products were installed out of cycle. Control = percentage of all untreated plots attacked over the life of the study.

% A.I.	Test	Arizona		Florida		over the life of the Mississippi		South Carolina		FL SE
		EPA	FL	EPA	FL	EPA	FL	EPA	FL	States
Imidaclop	orid – Pre	mise 75	WSP (s	tudy est	ablishe	d 1992 a	nd clos	sed 2007	7)	
0.025	CS	15	15	15	15	1	1	3	4	2
$0.05^{\dagger \dagger}$	CS	15	15	6	12	2	2	10	10	6
0.1 ^{††}	CS	15	15	15	15	2	4	5	15	8
0.15	CS	15	15	15	15	3	4	5	15	5
0.15	CS	15	15	15	15	2	5	5	5	5
0.25	CS	15	15	12	15	2	2	8	9	8
0.25	CS	15	15	15	15	5	5	5	11	14
0.4	CS	15	15	12	15	5	9	5	14	15
0.1 ^{††}	GB	3	7	2	2	1	1	2	2	2
0.2	GB	8	14	2	2	2	2	2	2	2
0.2	GB	5	6	2	2	2	2	1	2	2
0.3	GB	5	7	2	3	2	2	4	5	2
Control	CS		%		1%	75			5%	-
Control	GB		40%		95%		96%		70%	
	- Termido		Contract of					150/A3	//0	-
	reated GB								the low	atta alra a
untracted a	ontrol plots	and mult	tinla pro	duota in	the test of	of the st	a impos	aible to	ule low	trootmon
	····	onal information, refer		1				1		p. 66).
Control	CS		<u>14%</u> 9%		18%		2%		3%	
Control	GB			8%		16%			<i></i> %0	-
	- Termido	T	1	1		Υ				1
0.06 ^{††}	CS	12	12	11.5	11.5	8	12	8	8	11.5+
$0.125^{\dagger\dagger}$	CS	12	12	11.5	11.5	8	12	12	12	11.5+
0.25	CS	12	12	11.5	11.5	12	12	12	12	11.5+
$0.06^{\dagger \dagger}$	GB	10	12	9.5	11.5	9	10	5	11	10.5+
$0.125^{\dagger\dagger}$	GB	12	12	11.5	11.5	8	11	10	10	11.5+
0.25	GB	0	9	2.5	11.5	2	2	12	12	11.5+
Control	CS	1%		67%		85%		50)%	-
Control	GB	50	50%		97%		86%		88%	
Chlorfena	apyr – Pha	ntom (s	tudy es	tablishe	d 1996	and clos	ed 201	1)		
0.125 ^{††}	CS	15	15	1	7	1	1	6	7	1
0.25 ^{††}	CS	15	15	11	11	2	5	5	15	6
0.5	CS	15	15	15	15	4	4	15	15	15
0.75	CS	15	15	1	1	5	5	15	15	15
1.0	CS	15	15	15	15	5	7	8	8	7
2.0	CS	15	15	15	15	1	9	15	15	15
0.25 ^{††}	GB	9	11	0	0	2	6	5	8	6
	GB	5	10	1	8	4	4	12	15	5
0.5										8
0.5								11		
0.75	GB	15	15	4	7	5	12	11	15	
0.75 1.0	GB GB	15 8	15 15	4 9	7 11	5 5	12 11	11	11	11
0.75 1.0 2.0	GB GB GB	15 8 6	15 15 11	4 9 15	7 11 15	5 5 12	12 11 12	11 8	11 14	11 12
0.75 1.0 2.0 Control	GB GB GB CS	15 8 6 19	15 15 11 9%	4 9 15 66	7 11 15 %	5 5 12 79	12 11 12 %	11 8 44	11 14 %	11 12 -
0.75 1.0 2.0 Control Control	GB GB GB CS GB	15 8 6 19 54	15 15 11 %	4 9 15 66 87	7 11 15 %	5 5 12 79 99	12 11 12 % %	11 8 44 95	11 14	11 12
0.75 1.0 2.0 Control Control	GB GB GB CS GB raniliprole	15 8 6 19 54 e - Altris	15 15 11 % \$\$et (stue	4 9 15 66 87 dy estab	7 11 15 % % lished 2	5 5 12 79 99 2004 and	12 11 12 % %	11 8 44 95 2015)	11 14 1% 5%	11 12 - -
0.75 1.0 2.0 Control Control Chloranti 0.025	GB GB CS GB raniliprole	15 8 6 19 54 e - Altris 3	15 15 11 9% 9% set (stue 5	4 9 15 66 87 dy estab	7 11 15 % 1% lished 2 7	5 5 12 79 99 2004 and 2	12 11 12 % % I closed 5	11 8 44 95 2015) 11	11 14 % 5%	11 12 - - 7
0.75 1.0 2.0 Control Control Chloranti 0.025 0.05 ^{††}	GB GB GB CS GB raniliprole CS CS	15 8 6 54 8 - Altris 3 5	15 15 11 9% 9% 5 6	4 9 15 66 87 dy estab 1 3	7 11 15 % % lished 2 7 11	5 5 12 79 99 2004 and 2 9	12 11 12 % % I closed 5 11	11 8 44 95 2015) 11 4	11 14 1% 5% 11 4	11 12 - - 7 11
0.75 1.0 2.0 Control Control Chloranti 0.025 0.05 ^{††} 0.1	GB GB GB CS GB raniliprole CS CS CS	15 8 6 19 54 5 2 2	15 15 11 % % set (stue 5 6 11	4 9 15 66 87 dy estab 1 3 11	7 11 15 % % lished 2 7 11 11	5 5 12 79 99 2004 and 2 9 11	12 11 12 % % I closed 5 11 11	11 8 44 95 2015) 11 4 11	11 14 1% 5% 11 4 11	11 12 - - 7 11 11
0.75 1.0 2.0 Control Control Chloranti 0.025 0.05 ⁺⁺ 0.1 0.25	GB GB GB CS GB raniliprole CS CS CS CS	15 8 6 19 54 - Altris 3 5 2 4	15 15 11 % % % \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4 9 15 66 87 dy estab 1 3 11 11	7 11 15 % % lished 2 7 11 11 11	5 5 12 79 99 2004 and 2 9 11 11	12 11 12 % % I closed 5 11 11 11	11 8 44 95 2015) 11 4 11 11	11 14 14 5% 5% 11 4 11 11	11 12 - - 7 11 11 11 11
$\begin{array}{c} 0.75 \\ 1.0 \\ 2.0 \\ \hline \\ Control \\ \hline \\ Chloranti \\ 0.025 \\ 0.05^{\dagger\dagger} \\ \hline \\ 0.1 \\ 0.25 \\ 0.025 \\ \end{array}$	GB GB GB CS GB CS CS CS CS CS CS CS GB	15 8 6 19 54 2 4 2	15 15 11 9% set (stud 5 6 11 11 5	4 9 15 66 87 dy estab 1 3 11 11 0	7 11 15 % ished 2 7 11 11 11 11 11	5 5 12 79 99 2004 and 2 9 11 11 11 1	12 11 12 % % I closed 5 11 11 11 2	11 8 44 95 2015) 11 4 11 11 11 11	11 14 1% 5% 11 4 11 11 2	11 12 - - 7 11 11 11 11 11
0.75 1.0 2.0 Control Control Chloranti 0.025 0.05 ^{††} 0.1 0.25 0.025 0.05 ^{††}	GB GB GB CS GB CS CS CS CS CS CS CS GB GB	15 8 6 19 54 e - Altris 3 5 2 4 2 2	15 15 11 % % set (stud 5 6 11 11 11 5 2	4 9 15 66 87 dy estab 1 3 11 11 0 0	7 11 15 %% % % lished 2 7 11 11 11 11 2	5 5 12 79 99 2004 and 2 9 11 11 11 1 2	12 11 12 % % I closed 5 11 11 11 2 4	11 8 44 95 2015) 11 4 11 11 11 1 1	11 14 19% 5% 11 4 11 11 2 2	11 12 - - 7 11 11 11 11 1 2
0.75 1.0 2.0 Control Control Chloranti 0.025 0.05 ⁺⁺ 0.1 0.25 0.025 0.025 0.05 ⁺⁺ 0.1	GB GB GB CS GB CS GB GB GB	15 8 6 19 54 e - Altris 3 5 2 4 2 4 2 4	15 15 11 % % set (stud 5 6 11 11 5 2 7	4 9 15 66 87 dy estab 1 3 11 11 0 0	7 11 15 %% % lished 2 7 11 11 11 11 11 6	5 5 12 79 99 2004 and 2 9 11 11 11 2 4	12 11 12 % % I closed 5 11 11 11 2 4 6	11 8 44 95 2015) 11 4 11 11 1 1 1 2	11 14 1% 1% 11 4 11 11 2 2 4	11 12 - 7 11 11 11 12 4
0.75 1.0 2.0 Control Control Chloranti 0.025 0.05 ^{††} 0.1 0.25 0.025 0.05 ^{††}	GB GB GB CS GB CS CS CS CS CS CS CS GB GB	15 8 6 19 54 2 4 2 4 2 4 2 4 2 4 2 4 2	15 15 11 % % set (stud 5 6 11 11 11 5 2	4 9 15 66 87 dy estab 1 3 11 11 0 0 0 1 2	7 11 15 %% % % lished 2 7 11 11 11 11 2	5 5 12 79 99 2004 and 2 9 11 11 11 1 2	12 11 12 % % I closed 5 11 11 11 2 4 6 8	11 8 44 95 2015) 11 4 11 11 11 1 1	11 14 1% 1% 11 4 11 11 2 2 4 8	11 12 - - 7 11 11 11 11 1 2

[†] **EPA**: years with no penetration through treated soil in any plot.

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