

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. Number of years that repellent 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		Mississippi		South Carolina		FL SE States
		EPA	FL	EPA	FL	EPA	FL	EPA	FL	
Bifenthrin – Biflex TC (study established 1986 and closed 2011)										
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%		-
Cypermethrin (study established 1982 and closed 2004)										
0.125	CS	1	4	0.5	1.5	1	3	2	2	2
0.25 ^{††}	CS	4	4	10.5	12.5	3	5	4	4	4
0.5 ^{††}	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%		75%		85%		88%		-
Permethrin – Dragnet (study established 1978 and closed 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 ^{††}	CS	15	15	15	25	5	8	10.5	11.5	10.5
1.0 ^{††}	GB	9	11	6	6	2	3	0.5	3.5	3
Control	CS	50%		55%		60%		53%		-
Control	GB	43%		78%		86%		84%		-
Permethrin – Torpedo (study established 1980 and closed 2011). Controls same as cypermethrin										
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 ^{††}	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 ^{††}	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		Mississippi		South Carolina		FL SE States
		EPA	FL	EPA	FL	EPA	FL	EPA	FL	
Imidacloprid – Premise 75 WSP (study established 1992 and closed 2007)										
0.025	CS	15	15	15	15	1	1	3	4	2
0.05 ^{††}	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
0.2	CS	15	15	15	15	2	5	5	5	5
0.25	CS	15	15	12	15	2	2	8	9	8
0.3	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
0.3	GB	5	6	2	2	2	2	1	2	2
0.4	GB	5	7	2	3	2	2	4	5	2
Control	CS	33%		77%		75%		36%		-
Control	GB	40%		95%		96%		70%		-
Fipronil – Termidor 80 WG (study established 1994 and closed 2010)										
Only five treated GB plots were attacked during the life of the study, but due to the low attacks at untreated control plots and multiple products in the test site, it was impossible to evaluate treatment effects. For additional information, refer to the 2006 Termiticide Report (PC, February 2007, p. 66).										
Control	CS	14%		18%		2%		3%		-
Control	GB	9%		8%		16%		11%		-
Fipronil – Termidor SC (study established 1999 and closed 2011)										
0.06 ^{††}	CS	12	12	11.5	11.5	8	12	8	8	11.5+
0.125 ^{††}	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 ^{††}	GB	10	12	9.5	11.5	9	10	5	11	10.5+
0.125 ^{††}	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%		97%		86%		88%		-
Chlorfenapyr – Phantom (study established 1996 and closed 2011)										
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
0.5	GB	5	10	1	8	4	4	12	15	5
0.75	GB	15	15	4	7	5	12	11	15	8
1.0	GB	8	15	9	11	5	11	11	11	11
2.0	GB	6	11	15	15	12	12	8	14	12
Control	CS	19%		66%		79%		44%		-
Control	GB	54%		87%		99%		95%		-
Chlorantraniliprole – Altriset (study established 2004 and closed 2015)										
0.025	CS	3	5	1	7	2	5	11	11	7
0.05 ^{††}	CS	5	6	3	11	9	11	4	4	11
0.1	CS	2	11	11	11	11	11	11	11	11
0.25	CS	4	11	11	11	11	11	11	11	11
0.025	GB	2	5	0	1	1	2	1	2	1
0.05 ^{††}	GB	2	2	0	2	2	4	1	2	2
0.1	GB	4	7	1	6	4	6	2	4	4
0.25	GB	2	4	2	9	2	8	4	8	8
Control	CS	5%		63%		88%		49%		-
Control	GB	13%		82%		88%		89%		-

[†] 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.