



# SPLAT Bioassay 1: Toxicity of SPLAT Containing 5% Cypermethrin to Adult Coconut Rhinoceros Beetles

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February 16, 2011

This first bioassay tests for toxic effects to adult CRB after brief tarsal contact with RB-SPLAT containing 5% cypermethrin (RB-SPLAT-C).

## 1 Methods

CRB adults were field collected from a compost pile on January 27, 2011. Beetles were held individually one quart Mason jars containing moist peat moss. At 2:00 p.m. on January 31, 2010, each beetle was removed from its jar, lowered onto a plastic surface coated with a thin layer of RB-SPLAT-C for 10 seconds so that all legs contacted the material, and then placed back in its jar. Beetles were checked at 24 hours and 48 hours after treatment.

## 2 Results

All ten treated beetles were knocked down within 24 h and none recovered within the following week (Table 1).

Table 1: Raw data. In the Sex column, M = male and F = female. In the 24h, 48h and 7d observation columns, A = active, M = moribund, and D = dead.

Treatment	Beetle	Sex	24h	48h	7d	Note
tarsal contact	1451	F	M	M	M	
tarsal contact	1458	M	D	-	-	left front tarsus missing
tarsal contact	1463	M	D	-	-	
tarsal contact	1455	M	M	M	D	both front tarsi missing
tarsal contact	1460	F	D	-	-	right mid tarsus missing
tarsal contact	1459	M	M	M	M	mid tarsus missing @7d
tarsal contact	1453	F	M	D	-	
tarsal contact	1445	F	M	M	M	
tarsal contact	1446	M	M	M	M	
tarsal contact	1462	F	M	M	M	
untreated	1443	F	A	A	A	
untreated	1441	F	A	A	A	
untreated	1449	F	A	A	A	
untreated	1447	F	A	A	A	
untreated	1448	M	A	A	A	
untreated	1442	M	A	A	A	
untreated	1454	F	A	A	A	
untreated	1456	F	A	A	A	
untreated	1452	F	A	A	A	
untreated	1461	M	A	A	A	
untreated	1450	M	A	A	A	
untreated	1440	M	A	A	A	
untreated	1457	F	A	D	-	
untreated	1444	F	A	A	A	