

Bioactivity assay

Species	Insect stages	repetition	Sample(N)	Mortality(N)	Mortality (%)	Corrected mortality (%)
<i>Beauveria bassiana</i>	young nymph	1-1	10	10	100	100
		1-2	10	8	80	77.77778
		1-3	10	9	90	88.88889
		1Ck-1	10	1	10	
		1Ck-2	10	1	10	
		1Ck-3	10	1	10	
	old nymph	2-1	10	8	80	80
		2-2	10	7	70	66.66667
		2-3	10	8	80	80
		2Ck-1	10	0	0	
		2Ck-2	10	1	10	
		2Ck-3	10	0	0	
	adult	3-1	10	6	60	60
		3-2	10	7	70	66.66667
		3-3	10	7	70	70
		3Ck-1				
		3Ck-2				
		3Ck-3				
<i>Paecilomyces lilacinus</i>	young nymph	4-1	10	9	90	90
		4-2	10	8	80	77.7777778
		4-3	10	7	70	66.6666667
		4Ck-1	10	0	0	
		4Ck-2	10	1	10	
		4Ck-3	10	1	10	
	old nymph	5-1	10	8	80	80
		5-2	10	6	60	60
		5-3	10	7	70	66.6666667
		6Ck-1	10	0	0	
		6Ck-2	10	0	0	
		6Ck-3	10	1	10	
	adult	7-1	10	6	60	60
		7-2	10	7	70	70
		7-3	10	6	60	60
		7Ck-1	10	0	0	
		7Ck-2	10	0	0	
		7Ck-3	10	0	0	

ANOVA

2014-4-24 16:31:54							
Result							
Treatment	sample size	average	SD	SE	95%confidence interval		
1	3	88.8889	11.1111	6.415	61.2874	116.4904	
2	3	75.5556	7.698	4.4444	56.4327	94.6785	
3	3	65.5556	5.0918	2.9397	52.9069	78.2042	
4	3	78.1482	11.6711	6.7383	49.1556	107.1407	
5	3	68.8889	10.1835	5.8794	43.5917	94.1861	
6	3	63.3333	5.7735	3.3333	48.9912	77.6755	
table of variance analysis							
Source of variation	quadratic sum	df	mean square	F value	palue		
among treatments	1350.96	5	270.1921	3.364	0.0395		
within treatments	963.7858	12	80.3155				
total variation	2314.746	17					
Duncan							
No.	average	1	4	2	5	3	6
1	88.8889		0.1679	0.1079	0.0256	0.0127	0.0081
4	78.1482	10.7407		0.7293	0.2517	0.1362	0.0891
2	75.5556	13.3333	2.5926		0.3802	0.2177	0.1471
5	68.8889	20	9.2593	6.6667		0.6569	0.4842
3	65.5556	23.3333	12.5926	10	3.3333		0.7666
6	63.3333	25.5556	14.8148	12.2222	5.5556	2.2222	
Different letters following the data within a column indicate significant difference							
Treatment	average	5% level		1% level			
1	88.8889	a		A			
4	78.1482	ab		AB			
2	75.5556	ab		AB			
5	68.8889	b		AB			
3	65.5556	b		AB			
6	63.3333	b		B			

LC50 Values

2013-7-8(10d) <i>Beauveria bassiana</i>							
Insect stages	Treatment	sample No	Mortality (N)			mortality (%)	Corrected mortality (%)
			repetition1	repetition2	repetition3		
young nymph	6.25	10	3	6	4	43.33333	37.03704
	12.5	10	4	4	5	43.33333	37.03704
	25	10	8	7	6	70	66.66667
	50	10	8	9	6	76.66667	74.07407
	100	10	10	8	9	90	88.88889
	CK	10	1	1	1	10	0
old nymph	6.25	10	4	4	3	36.66667	34.48276
	12.5	10	5	3	7	50	48.27586
	25	10	5	7	8	66.66667	65.51724
	50	10	6	9	7	73.33333	72.41379
	100	10	8	7	8	76.66667	75.86207
	CK	10	0	1	0	3.333333	0
adult	6.25	10	4	3	3	33.33333	31.03448
	12.5	10	4	3	7	46.66667	44.82759
	25	10	5	6	7	60	58.62069
	50	10	5	7	7	63.33333	62.06897
	100	10	6	7	7	66.66667	65.51724
	CK	10	0	1	0	3.333333	0

Result of young nymph 2014-4-25 16:39:46

	Dose	logarithm of doses	treatment effect	probit value			
	6.25	0.7959	37.037	4.6691			
	12.5	1.0969	37.037	4.6691			
	25	1.3979	66.6667	5.4307			
	50	1.699	74.0741	5.6456			
	100	2	88.8889	6.2206			
	regression intercept A	SE	regression coefficientB	SE	correlation coefficient	F- inspection value	p- value
	3.4326	0.2969	1.3552	0.2032	0.9679	44.4929	0.0069
LD50	Logarithmic concentration =	1.1566	95% confidence interval	1.0128	~	1.3004	
	concentration =	14.3419	95% confidence interval	10.2994	~	19.9712	

Result of old nymph 2014-4-25 16:41:20

	Dose	logarithm of doses	treatment effect	probit value			
	6.25	0.7959	34.4828	4.6007			
	12.5	1.0969	48.2759	4.9568			
	25	1.3979	65.5172	5.3993			
	50	1.699	72.4138	5.5952			
	100	2	75.8621	5.7019			
	regression intercept A	SE	regression coefficientB	SE	correlation coefficient	F- inspection value	p- value
	3.9315	0.1905	0.9437	0.1304	0.9725	52.3793	0.0054
LD50	Logarithmic concentration =	1.1322	95% confidence interval	0.9963	~	1.2681	
	concentration =	13.5586	95% confidence interval	9.9153	~	18.5405	
Result of adult 2014-4-25 16:42:00							
	Dose	logarithm of doses	treatment effect	probit value			
	6.25	0.7959	31.0345	4.5051			
	12.5	1.0969	44.8276	4.87			
	25	1.3979	58.6207	5.2178			
	50	1.699	62.069	5.3073			
	100	2	65.5172	5.3993			
	regression intercept A	SE	regression coefficientB	SE	correlation coefficient	F- inspection value	p- value
	4.0263	0.1978	0.7394	0.1354	0.9532	29.8361	0.0121
LD50	Logarithmic concentration =	1.3169	95% confidence interval	1.1614	~	1.4724	
	concentration =	20.7452	95% confidence interval	14.5016	~	29.677	

2013-7-8(10d) <i>Beauveria bassiana</i>							
Insect stages	Treatment	sample No	Mortality (N)			mortality (%)	Corrected mortality (%)
			repetition1	repetition2	repetition3		
young nymph	6.25	10	3	6	4	43.33333	37.03704
	12.5	10	4	4	5	43.33333	37.03704
	25	10	8	7	6	70	66.66667
	50	10	8	9	6	76.66667	74.07407
	100	10	10	8	9	90	88.88889
	CK	10	1	1	1	10	0
old nymph	6.25	10	4	4	3	36.66667	34.48276
	12.5	10	5	3	7	50	48.27586
	25	10	5	7	8	66.66667	65.51724
	50	10	6	9	7	73.33333	72.41379
	100	10	8	7	8	76.66667	75.86207
	CK	10	0	1	0	3.333333	0
adult	6.25	10	4	3	3	33.33333	31.03448
	12.5	10	4	3	7	46.66667	44.82759
	25	10	5	6	7	60	58.62069
	50	10	5	7	7	63.33333	62.06897
	100	10	6	7	7	66.66667	65.51724
	CK	10	0	1	0	3.333333	0

Result of young nymph 2014-4-25 16:43:13							
	Dose	logarithm of doses	treatment effect	probit value			
	6.25	0.7959	28.5714	4.4341			
	12.5	1.0969	35.7143	4.6339			
	25	1.3979	60.7143	5.2719			
	50	1.699	71.4286	5.5659			
	100	2	78.5714	5.7916			
	regression intercept A	SE	regression coefficient B	SE	correlation coefficient	F- inspection value	p-value
	3.4458	0.1936	1.2116	0.1325	0.9825	83.6009	0.0028
LD50	Logarithmic concentration =	1.2828	95% confidence interval	1.1883	~	1.3774	
	concentration =	19.1786	95% confidence interval	15.4269	~	23.8426	

Result of old nymph 2014-4-25 16:43:46

	Dose	logarithm of doses	treatment effect	probit value			
	6.25	0.7959	27.5862	4.4048			
	12.5	1.0969	48.2759	4.9568			
	25	1.3979	58.6207	5.2178			
	50	1.699	65.5172	5.3993			
	100	2	68.9655	5.4949			
	regression intercept A	SE	regression coefficientB	SE	correlation coefficient	F- inspection value	p- value
	3.8768	0.2431	0.8712	0.1663	0.9494	27.4361	0.0135
LD50	Logarithmic concentration =	1.2892	95% confidence interval	1.1248	~	1.4536	
	concentration =	19.4636	95% confidence interval	13.3294	~	28.4208	

Result of adult 2014-4-25 16:44:12

	Dose	logarithm of doses	treatment effect	probit value			
	6.25	0.7959	26.6667	4.3771			
	12.5	1.0969	43.3333	4.8321			
	25	1.3979	56.6667	5.1679			
	50	1.699	60	5.2533			
	100	2	63.3333	5.3407			
	regression intercept A	SE	regression coefficientB	SE	correlation coefficient	F- inspection value	p- value
	3.9036	0.2394	0.7801	0.1638	0.9398	22.6761	0.0176
LD50	Logarithmic concentration =	1.4053	95% confidence interval	1.2301	~	1.5806	
	concentration =	25.4299	95% confidence interval	16.9861	~	38.0712	