

**Supplemental Data**

**Table i. Insecticidal Activity of Cry1Ab, Vip3Aa20, and Cry1F individually against ECB at 120 h after treatment.**

Test protein	Protein concentration (ng/ml)	% Mortality ( $\bar{x}$ )
Cry1Ab	200	67
	100	43
	50	45
	25	14
	12.5	6
Vip3Aa20	100	0
	50	4
	25	8
	12.5	1
	6.3	3
Cry1F	400	63
	200	38
	100	7
	50	2
	25	4

Data were corrected for control mortality using Abbott's formula

Three 24-well plates per dose were used for each treatment or control being tested

**Table ii. Insecticidal Activity of Cry1Ab, Vip3Aa20, and Cry1F individually against FAW at 120 h after treatment.**

Test protein	Protein concentration (ng/ml)	% Mortality ( $\bar{x}$ )
Cry1Ab	200	1
	100	1
	50	4
	25	6
	12.5	3
Vip3Aa20	400	61
	200	52
	100	44
	50	14
	25	6
Cry1F	2000	76
	1000	53
	500	39
	250	12
	125	13

Data were corrected for control mortality using Abbott's formula

Three 24-well plates per dose were used for each treatment or control being tested

**Table iii. Insecticidal Activity of eCry3.1Ab and mCry3A individually against CPB at 120 h after treatment.**

Test protein	Protein concentration (µg/ml)	% Mortality (x̄)
eCry3.1Ab	12.5	64.0
	6.3	49.6
	3.1	48.9
	1.6	25.2
	0.8	25.2
	0.4	22.3
	0.2	18.0
mCry3A	8	57.3
	4	51.4
	2	39.7
	1	29.4
	0.5	20.6
	0.3	17.6
	0.1	10.3

Data were corrected for control mortality using Abbott's formula

Three 24-well plates per dose were used for each treatment or control being tested

**Table iv. Lepidopteran-active protein mixtures used in ECB dose-response treatments**

Concentration of lepidopteran-active protein mixture	Cry1Ab + Vip3Aa20 + Cry1F (ng/ml diet)
1X	400 + 200 + 800
X/2	200 + 100 + 400
X/4	100 + 50 + 200
X/8	50 + 25 + 100
X/16	25 + 12.5 + 50
X/32	12.5 + 6.25 + 25
X/64	6.25 + 3.125 + 12.5
X/128	3.125 + 1.5625 + 6.25
N/A (buffer)	N/A (20 mM CAPS, pH 10.5)

Serial dilutions were performed in 20 mM CAPS (pH 10.5)

One 24-well plate per dose was used for each treatment or control being tested

**Table v. Coleopteran-active protein mixtures used in CPB dose-response treatments.**

<b>Concentration of coleopteran-active protein mixture</b>	<b>eCry3.1Ab + mCry3A (<math>\mu\text{g/ml}</math> diet)</b>
1X	8 + 8
X/2	4 + 4
X/4	2 + 2
X/8	1 + 1
X/16	0.5 + 0.5
X/32	0.25 + 0.25
X/64	0.125 + 0.125
X/128	0.0625 + 0.0625
N/A (buffer)	N/A (1:1 10 mM ammonium bicarbonate, pH 10.0 : water)

Serial dilutions were performed in 1:1 (v/v) 10 mM ammonium bicarbonate, pH 10.0 to purified water

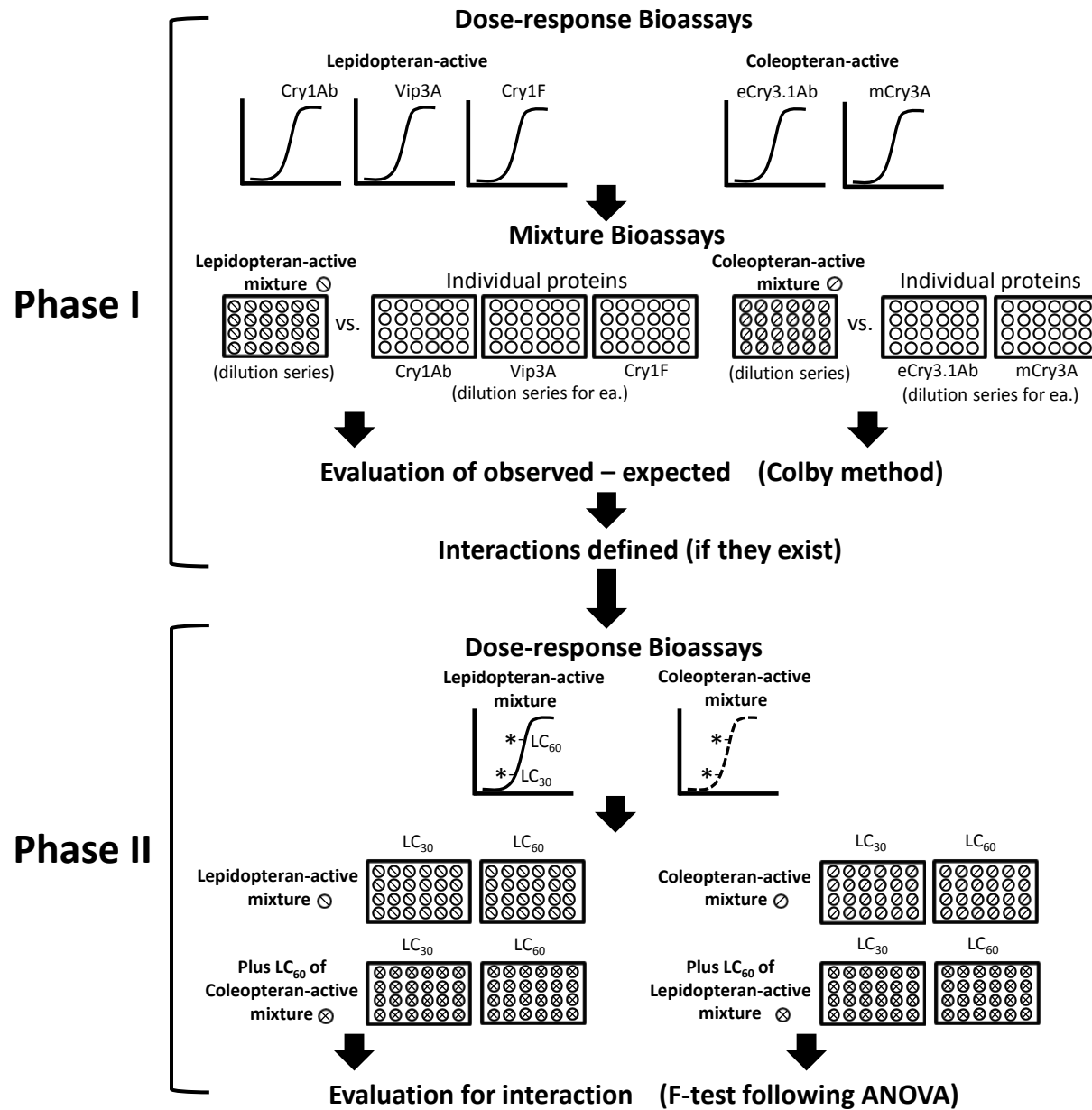
One 24-well plate per dose was used for each treatment or control being tested

**Table vi. Experimental set-up of the ECB bioassay to assess the potential for a protein interaction.**

<b>Species</b>	<b>lepidopteran-active protein mixture concentration</b>	<b>coleopteran-active protein mixture concentration</b>	<b>purpose</b>
<b>ECB</b>	<b>ECB low dose</b>	-	<b>Test entry</b>
<b>ECB</b>	<b>ECB high dose</b>	-	<b>Test entry</b>
<b>ECB</b>	<b>ECB low dose</b>	<b>CPB high dose</b>	<b>Test entry</b>
<b>ECB</b>	<b>ECB high dose</b>	<b>CPB high dose</b>	<b>Test entry</b>
<b>ECB</b>	-	<b>CPB high dose</b>	<b>Negative control</b>
<b>CPB</b>	-	<b>CPB high dose</b>	<b>Positive control</b>
<b>ECB</b>	-	-	<b>Buffer Controls</b>

**Table vii. Experimental set-up of the CPB bioassay to assess the potential for a protein interaction.**

<b>Species</b>	<b>coleopteran-active protein mixture concentration</b>	<b>lepidopteran-active protein mixture concentration</b>	<b>purpose</b>
<b>CPB</b>	<b>CPB low dose</b>	<b>-</b>	<b>Test entry</b>
<b>CPB</b>	<b>CPB high dose</b>	<b>-</b>	<b>Test entry</b>
<b>CPB</b>	<b>CPB low dose</b>	<b>ECB high dose</b>	<b>Test entry</b>
<b>CPB</b>	<b>CPB high dose</b>	<b>ECB high dose</b>	<b>Test entry</b>
<b>CPB</b>	<b>-</b>	<b>ECB high dose</b>	<b>Negative control</b>
<b>ECB</b>	<b>-</b>	<b>ECB high dose</b>	<b>Positive control</b>
<b>CPB</b>	<b>-</b>	<b>-</b>	<b>Buffer Controls</b>



**Phase I**

**Phase II**

Fig.2

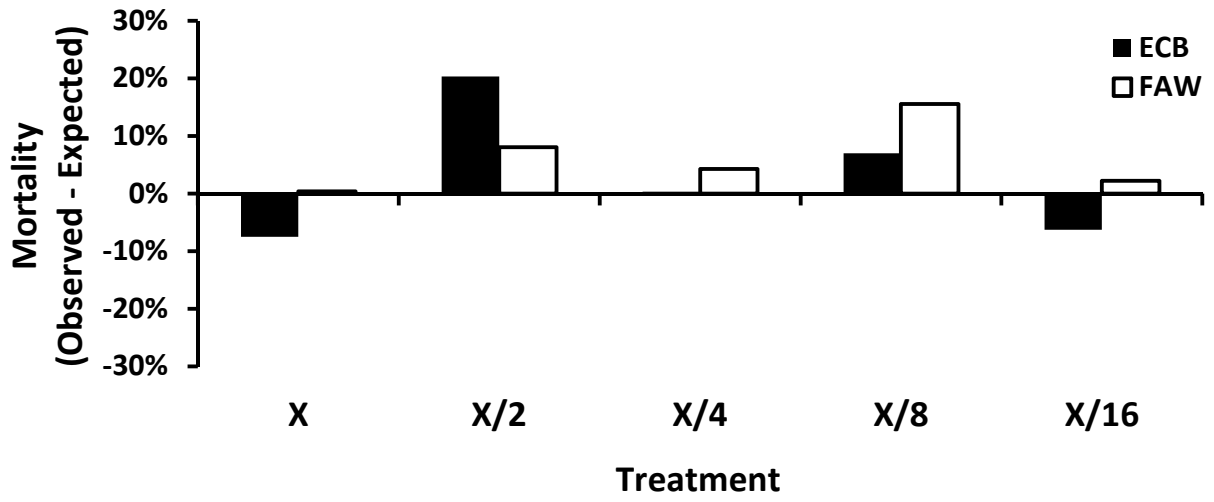


Fig.3

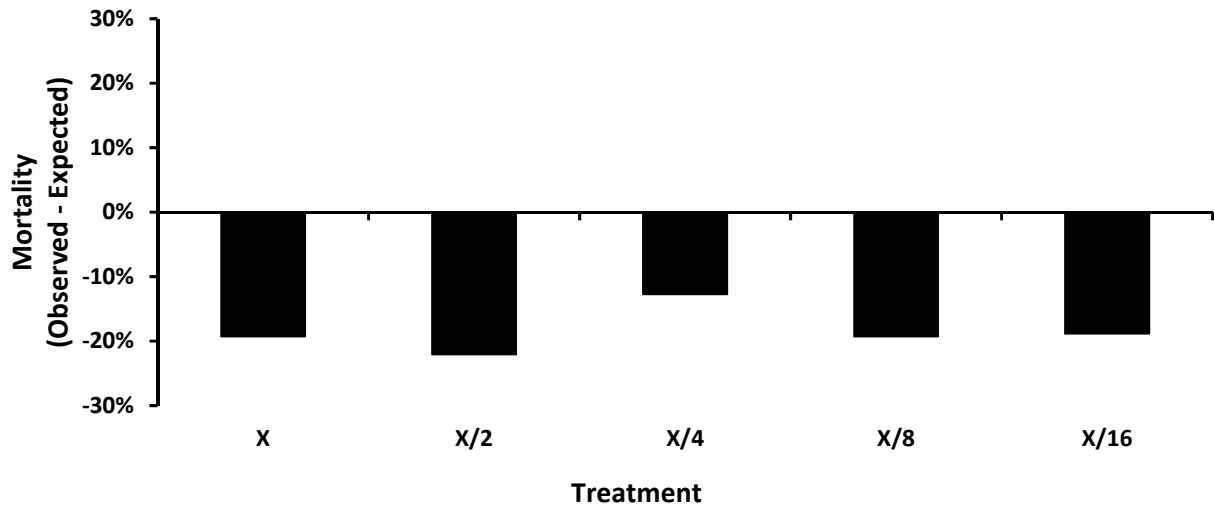


Fig.4

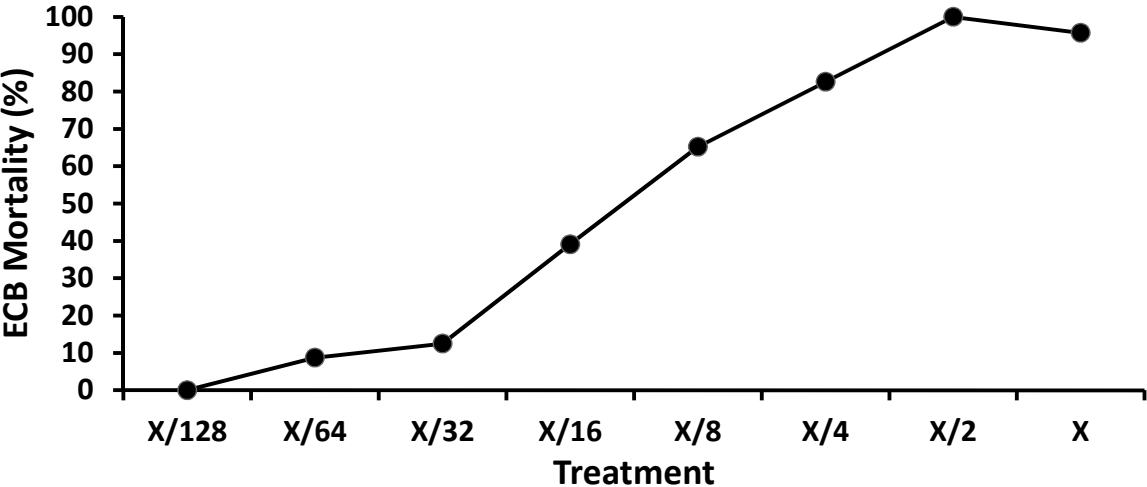




Fig.5

