

Characterization of *Triadica sebifera* (L.) Small Extracts, Antifeedant Activities of Extracts, Fractions, Seed Oil and Isolated Compounds against *Plutella xylostella* (L.) and Their Effect on Detoxification Enzymes

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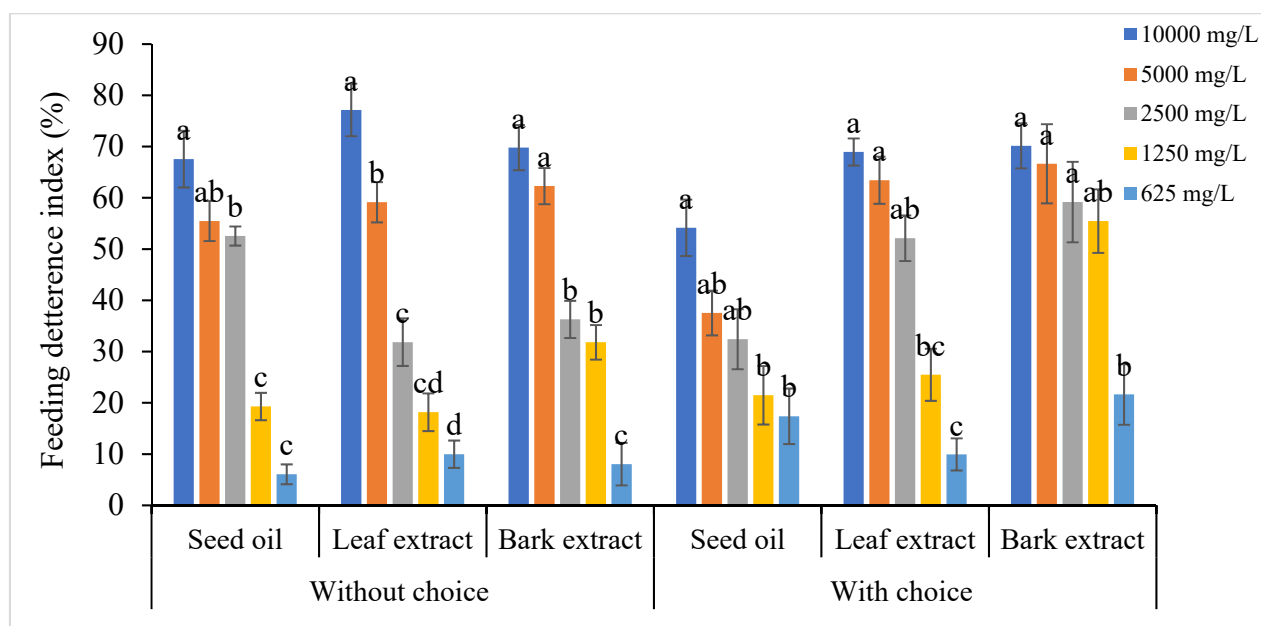


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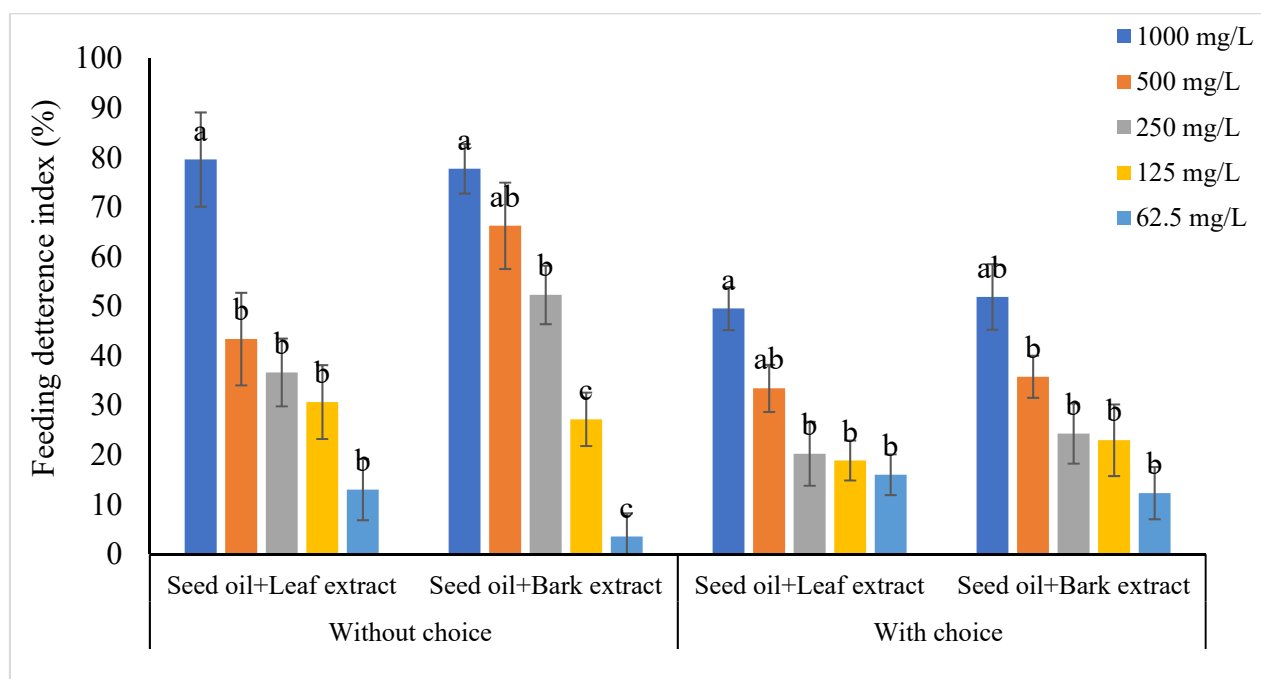


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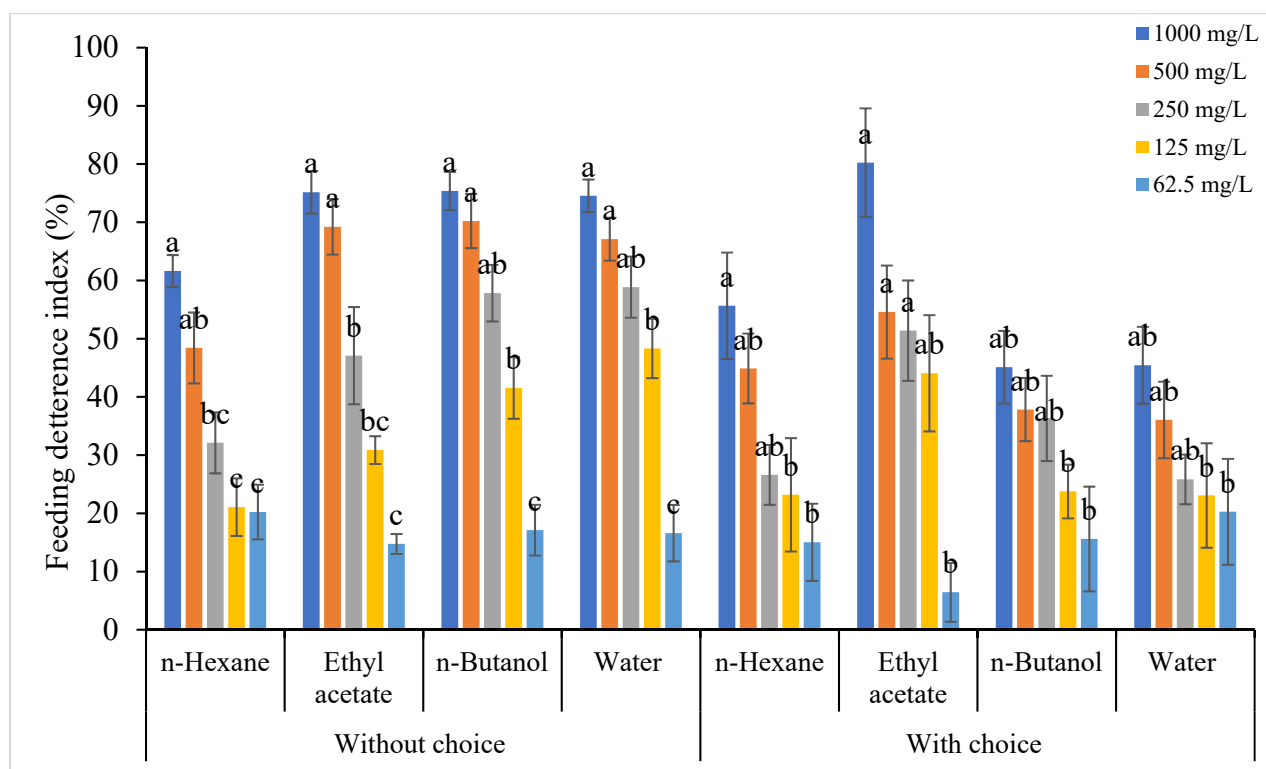


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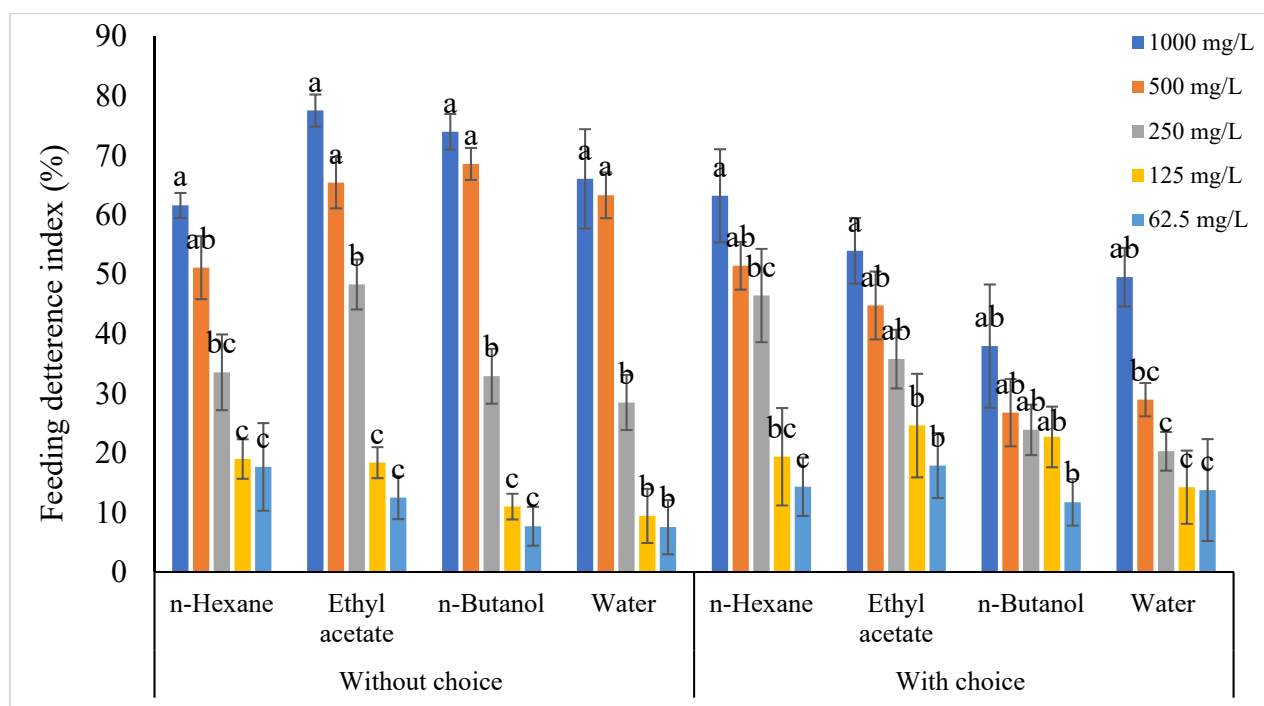


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Tables S1. Growth inhibition of leaf, bark extracts, fractions and seed oil of *Triadica sebifera* against *Plutella xylostella*

Extracts/oil	IC₅₀ (mg/L)	Confidence limits (mg/L)	Slope ± SE	Chi square	P value
Leaf extract	2696.49	2308.83 – 3161.44	1.82 ± 0.16	4.26	0.23
Bark extract	–	–	–	–	–
Seed oil	3225.25	2756.90 – 3811.73	1.79 ± 0.16	0.34	0.95
Leaf fractions					
<i>n</i> -Butanol	273.55	237.31 – 316.28	2.03 ± 0.17	3.40	0.26
Water	424.55	349.74 – 533.25	1.45 ± 0.15	3.45	0.33
<i>n</i> -Hexane	–	–	–	–	–
Ethyl acetate	–	–	–	–	–
Bark fractions					
Water	315.07	268.06 – 373.95	1.73 ± 0.16	0.83	0.84
<i>n</i> -Hexane	–	–	–	–	–
Ethyl acetate	–	–	–	–	–
<i>n</i> -Butanol	–	–	–	–	–

–No significant difference; p<0.150

Tables S2. Growth inhibition of, leaf, bark ethanol aqueous extracts, its fractions and seed oil of *Triadica sebifera* against *Plutella xylostella* (without choice method)

Conc. (mg/L)	Growth inhibition rate (\pm SE) after 48 h*			
	Leaf/bark extracts and seed oil			
	Leaf extract	Bark extract	Seed oil	
10000	89.40 \pm 5.83 a	99.77 \pm 5.02 a	82.37 \pm 3.25 a	
5000	65.86 \pm 8.45 ab	59.40 \pm 6.20 b	61.93 \pm 6.10 ab	
2500	42.34 \pm 6.99 bc	35.21 \pm 9.62 bc	41.82 \pm 7.91 bc	
1250	26.16 \pm 7.98 c	32.48 \pm 5.74 bc	22.27 \pm 4.46 cd	
625	18.07 \pm 2.98 c	7.64 \pm 9.64 c	11.04 \pm 2.81 d	
	F _{4,49} =18.93; p<0.0001	F _{4,49} =21.66; p<0.0001	F _{4,49} =30.37; p<0.0001	
Conc. (mg/L)	Leaf fractions			
	<i>n</i> -Hexane	Ethyl acetate	<i>n</i> -Butanol	Water
1000	100.00 \pm 0.00 a	77.22 \pm 4.56 a	90.86 \pm 4.88 a	68.65 \pm 5.04 a
500	87.31 \pm 5.47 a	64.08 \pm 6.20 a	65.07 \pm 9.73 ab	56.59 \pm 5.36 a
250	50.60 \pm 5.57 b	21.44 \pm 5.70 b	44.46 \pm 10.70 bc	39.28 \pm 9.37 ab
125	38.40 \pm 4.64 b	15.91 \pm 5.35 b	29.01 \pm 13.31 bc	16.15 \pm 8.79 b
62.5	34.50 \pm 6.30 b	10.80 \pm 4.86 b	9.27 \pm 9.18 c	14.07 \pm 9.35 b
	F _{4,49} =36.07; p<0.0001	F _{4,49} =32.31; p<0.0001	F _{4,49} =10.11; p<0.0001	F _{4,49} =9.51; p<0.0001
Conc. (mg/L)	Bark fractions			
	<i>n</i> -Hexane	Ethyl acetate	<i>n</i> -Butanol	Water
1000	96.24 \pm 2.10 a	99.68 \pm 3.03 a	87.36 \pm 7.17 a	79.92 \pm 2.95 a
500	86.36 \pm 5.29 a	52.30 \pm 8.55 b	54.53 \pm 9.57 ab	66.21 \pm 5.31 a
250	54.36 \pm 6.36 b	46.47 \pm 6.06 bc	27.38 \pm 10.76 bc	39.89 \pm 7.14 b
125	34.58 \pm 3.32 bc	33.51 \pm 8.66 bc	21.25 \pm 5.89 bc	26.32 \pm 7.96 bc
62.5	28.57 \pm 7.36 c	20.97 \pm 3.61 c	10.05 \pm 10.14 c	10.75 \pm 4.79 c
	F _{4,49} =33.26; p<0.0001	F _{4,49} =21.73; p<0.0001	F _{4,49} =12.18; p<0.0001	F _{4,49} =23.06; p<0.0001

*Mean of three replications; Mean followed by the same letter within a column are not statistically different by Tukey's HSD ($P \geq 0.05$)

Table S3. Growth inhibition of binary mixtures of *Triadica sebifera* against *Plutella xylostella* (without choice)

Conc. (mg/L)	Growth inhibition rate (\pm SE) after 48 h*	
	Seed oil + Leaf extract	Seed oil + Bark extract
1000	99.87 \pm 4.48 a	98.77 \pm 7.92 a
500	88.06 \pm 5.52 ab	85.76 \pm 7.63 ab
250	80.44 \pm 8.13 abc	84.23 \pm 6.81 ab
125	63.19 \pm 4.68 bc	72.56 \pm 4.62 ab
62.5	55.15 \pm 10.66 c	54.28 \pm 11.40 b
F _{4,49}	6.56; $p < 0.0001$	4.34; $p < 0.005$

*Mean of three replications; Mean followed by the same letter with in a column are not statistically different by Tukey's HSD ($p \geq 0.05$)

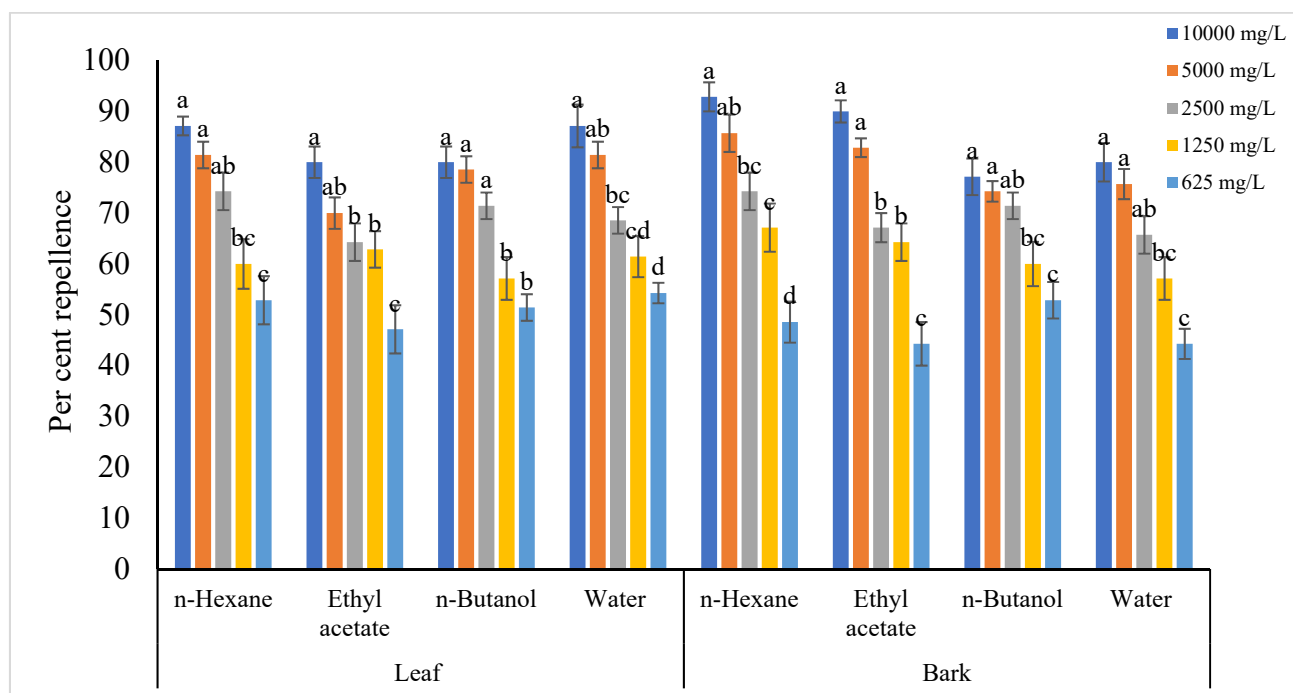


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