

Table S1. The chemical compounds of lemongrass (*Cymbopogon citratus*) essential oil, as identified by Moustafa et al. (2021) and Moustafa et al. (2023).

RT	Area %	Compound name
7.97	0.83	Isoneral
8.37	1.49	Isogeranial
8.60	0.71	Dihydronopol
9.77	35.00	β -Citral (neral)
10.47	35.91	α -Citral (Geranial (Citral A))
10.61	3.58	<i>trans</i> -Verbenol
10.71	0.91	Epoxy-linalooloxide
10.97	1.45	Geranyl vinyl ether
11.26	7.84	Nerylacetal
11.76	9.08	5-Octyldihydro-2(3H)-furanone
12.69	1.24	Geraniol acetate
13.74	1.24	(Z,E)- α -farnesene
16.77	0.72	β -Caryophyllene epoxide

RT (retention time)

Table S2. Analysis of variance (ANOVA) showing the differences of acetylcholine esterase (AchE), Cytochrome P450 (P450), α -esterase, Glutathione S transferase (GST), enzymes specific activity, between lemongrass essential oil, flometoquin, flonicamid, and sulfoxaflor, at their LC₅₀ values, Compared to untreated check of *Bemisia tabaci* adults, at 48 h post-treatment.

Enzyme	<i>F(df)</i> *	<i>P</i>
AchE	4.48 (4,10)	0.02
P450	3.74 (4,10)	0.04
α -esterase	4.84 (4,10)	0.02
GST	1.62 (4,10)	0.24

*df= degree of freedom

Table S3. Analysis of variance (ANOVA) showing the differences of acetylcholine esterase (AchE), Cytochrome P450 (P450), α -esterase, Glutathione S transferase (GST), enzymes specific activity, between the individual treatments of lemongrass essential oil, flometoquin, flonicamid, and sulfoxaflor, at their LC₂₅ values, and the binary mixture of lemongrass essential oil, at its LC₂₅, with flometoquin, flonicamid, or sulfoxaflor, compared to untreated check of *Bemisia tabaci* adults, at 48 h post-treatment.

Mixtures	AchE		P450		α -esterase		GST	
	<i>F(df)</i>	<i>P</i>	<i>F(df)</i>	<i>P</i>	<i>F(df)</i>	<i>P</i>	<i>F(df)</i>	<i>P</i>
Lemongrass/ flometoquin	7.39(3, 8)	0.01	0.10(3, 8)	0.96	6.45 (3, 8)	0.01	4.05(3, 8)	0.05
Lemongrass/ flonicamid	4.19(3, 8)	0.04	8.23(3,8)	0.01	2.66 (3, 8)	0.12	4.47(3, 8)	0.04
Lemongrass/ sulfoxaflor	6.48(3, 8)	0.015	4.74(3,8)	0.03	1.39 (3, 8)	0.31	2.53(3, 8)	0.13