

**Table S2.** Analysis of variance (ANOVA) for peroxide value, free fatty acidity, and induction time of different black cumin oil samples

Source	df	Peroxide value (meq O <sub>2</sub> /kg)		Free fatty acidity		Induction time (h)	
		MS	F	MS	F	MS	F
Samples	11	17,709.3	587.72**	3,863.22	980.72**	642.584	476.46**
Error	22	66.3		8.67		2.967	
Total	32	17,775.6		3,871.88		645.551	

\*\* Indicates statistical significance at  $P < 0.01$ . Different letters within a column denote statistically significant differences.

**Table S3.** Analysis of variance (ANOVA) for thymoquinone content of different black cumin oil samples.

Source of variation	df	Mean square	F value
Samples	11	1632.21	4601.97**
Error	22	0.78	
Total	32	1632.99	

\*\* Indicates statistical significance at  $P < 0.01$ . Different letters denote statistically significant differences.

**Table S4.** Analysis of variance (ANOVA) for fatty acid composition of different black cumin oil samples.

Source	df	C16:0 MS	F	C18:0 MS	F	C18:1 MS	F	C18:2 MS	F
Samples	11	101.560	290.00**	38.5444	110.72**	598.073	525.23**	239.754	459.78**
Error	22	0.770		0.7659		2.505		1.147	
Total	32	102.331		39.3103		600.578		240.901	

Source	df	C18:3 MS	F	C20:0 MS	F	C20:1 MS	F	C20:2 MS	F	C22:1 MS	F
Samples	10	366.058	1,770,786.99**	1.49947	42.00**	0.979089	49,024.18**	51.2466	195.94**	6.59243	5,783.20**
Error	22	0.000		0.07855		0.000044		0.5754		0.00251	
Total	32	366.058		1.57802		0.979133		51.8220		6.59494	