

**Supplementary Table S1.** Results of the analysis of optimal covariance matrix structure model for six pyrethrin compounds, total pyrethrin content and pyrethrin I/II ratio.

	<b>Fit Statistics</b>	<b>UN</b>	<b>VC</b>	<b>CS</b>	<b>AR1</b>	<b>TOEP</b>
<b>cin I</b>	-2 res log likelihood	-147.7	-118.6	-118.6	-118.6	-118.6
	AIC	-75.7	-116.6	-114.6	-114.6	-102.6
	AIC <sub>C</sub>	166.5	-116.5	-114.4	-114.4	-98.9
	BIC	16.6	-114.1	-109.5	-109.5	-82.1
<b>cin II</b>	-2 res log likelihood	-137.7	-117.0	-117.0	-117.0	-117.0
	AIC	-65.7	-115.0	-113.0	-113.0	-101.0
	AIC <sub>C</sub>	176.5	-115.0	-112.8	-112.8	-97.4
	BIC	26.6	-112.5	-107.9	-107.9	-80.5
<b>jas I</b>	-2 res log likelihood	-212.2	-184.8	-184.8	-184.8	-184.8
	AIC	-140.2	-182.8	-180.8	-180.8	-168.8
	AIC <sub>C</sub>	102.0	-182.7	-180.5	-180.5	-165.1
	BIC	-47.9	-180.2	-175.7	-175.7	-148.3
<b>jas II</b>	-2 res log likelihood	-236.3	-210.7	-210.7	-210.7	-210.7
	AIC	-164.3	-208.7	-206.7	-206.7	-194.7
	AIC <sub>C</sub>	77.9	-208.6	-206.5	-206.5	-191.0
	BIC	-72.0	-206.2	-201.6	-201.6	-174.2
<b>pyr I</b>	-2 res log likelihood	53.1	74.8	74.8	74.8	74.8
	AIC	125.1	76.8	78.8	78.8	90.8
	AIC <sub>C</sub>	367.3	76.9	79.1	79.1	94.5
	BIC	217.5	79.4	84.0	84.0	111.4
<b>pyr II</b>	-2 res log likelihood	35.2	56.3	56.3	56.3	56.3
	AIC	107.2	58.3	60.3	60.3	72.3
	AIC <sub>C</sub>	349.3	58.4	60.5	60.5	76.0
	BIC	199.5	60.8	65.4	65.4	92.8
<b>total pyrethrin content</b>	-2 res log likelihood	109.7	139.4	139.4	139.4	139.4
	AIC	181.7	141.4	143.4	143.4	155.4
	AIC <sub>C</sub>	423.9	141.5	143.6	143.6	159.1
	BIC	274.1	143.9	148.5	148.5	175.9
<b>pyr I/ pyr II ratio</b>	-2 res log likelihood	-19.5	4.7	4.7	4.7	4.7
	AIC	52.5	6.7	8.7	8.7	20.7
	AIC <sub>C</sub>	294.7	6.8	9.0	9.0	24.4
	BIC	144.9	9.3	13.9	13.9	41.3