



Supplementary Figure 1. Chromatograms comparison for the plants at extra-water (black) and low-water (red) conditions. (A) Comparison of the plants roots. (B) Comparison of the plants stems. (C) Comparison of the plants leaves. (D) Comparison of the plants fruits.

Supplementary Table 1. Comparative GC-MS analysis of *Cleome Amblyocarpa* plant growing either in extra-water or low-water conditions of the arid desert of Sharjah, UAE. Metabolite average relative percentage of three replicates was displayed \pm the standard error of the mean. The relative percentage of a metabolite represented in relation to total areas of all detected metabolites in an extract.

Lipophilic Metabolites	Extra-Water Condition				Low-Water Condition			
	Roots	Stems	Leaves	Fruits	Roots	Stems	Leaves	Fruits
I- Tolerance								
Hexatriacontane	6.79 \pm 0.6	nd	12.24 \pm 0.7	26.51 \pm 0.19	nd	12.05 \pm 0.5	5.52 \pm 0.25	40.98 \pm 0.85
Tetracosane	nd	nd	nd	8.61 \pm 0.35	nd	nd	nd	1.5 \pm 0.09
1-Heptacosanol	9.56 \pm 0.24	nd	nd	nd	2.83 \pm 0.4	nd	nd	nd
n-Nonadecanol-1	17.05 \pm 0.4	nd	nd	nd	12.54 \pm 0.72	nd	nd	nd
n-Pentadecanol	6.08 \pm 0.16	nd	nd	nd	nd	nd	nd	nd
Phytol	1.19 \pm 0.16	1.48 \pm 0.3	1.17 \pm 0.06	1.07 \pm 0.24	0.82 \pm 0.06	1.65 \pm 0.21	nd	0.55 \pm 0.21
Tridecanal	nd	nd	nd	nd	nd	4.33 \pm 0.18	nd	nd
9-Octadecenamide	nd	nd	nd	4.49 \pm 0.17	5.18 \pm 0.26	nd	nd	nd
Octacosyl acetate	nd	6.09 \pm 0.27	nd	nd	nd	nd	nd	nd
Octadecanoic acid	5.3 \pm 0.16	6.37 \pm 0.14	nd	nd	nd	nd	nd	nd
Pentadecadien	nd	nd	nd	nd	nd	3.35 \pm 0.27	nd	nd
II- Protective								
Heneicosane	3.38 \pm 0.23	nd	nd	11.01 \pm 0.26	nd	nd	nd	nd
Heptadecanal	7.32 \pm 0.28	nd	nd	nd	9.71 \pm 0.27	nd	nd	nd
Tetratetracontane	1.92 \pm 0.2	nd	7.53 \pm 0.64	nd	9.51 \pm 0.31	nd	3.62 \pm 0.06	1.26 \pm 0.21
Caryophyllene oxide	nd	nd	4.65 \pm 0.23	nd	nd	nd	13.85 \pm 0.37	nd
Spiro[4.5]decane	nd	nd	nd	nd	nd	nd	5.41 \pm 0.34	nd
2,6,10-Dodecatriene	nd	nd	nd	nd	nd	nd	2.97 \pm 0.28	nd
Pyran	nd	nd	nd	nd	nd	3.32 \pm 0.21	nd	nd
2(1H)Naphthalenone	nd	nd	nd	nd	nd	nd	3.85 \pm 0.05	nd
1-Heptatriacotanol	nd	nd	nd	nd	nd	nd	5.81 \pm 0.24	nd
Pentadecanoic acid	nd	nd	nd	nd	6.23 \pm 0.44	nd	nd	nd
Naphthalene	nd	nd	1.15 \pm 0.15	nd	nd	nd	3.71 \pm 0.11	nd
III- Detoxification								
2-Naphthalenemethanol	nd	nd	10.73 \pm 0.19	3.24 \pm 0.7	9.56 \pm 0.29	nd	22.4 \pm 0.57	nd
IV- Growth and Development								
Squalene	2.37 \pm 0.06	nd	nd	nd	nd	nd	nd	nd
Triacotanol (TRIA)	nd	nd	nd	nd	nd	nd	nd	7.4 \pm 0.52
Triacetyl acetate	7.56 \pm 0.24	nd	nd	nd	nd	nd	nd	nd