



**Figure S1.** The seeds of fourteen selected tree species belonging to the Fabaceae family: *Acacia auriculiformis* (A), *Acacia concinna* (B), *Albizia lebbeck* (C), *Albizia odoratissima* (D), *Bauhinia racemosa* (E), *Cassia fistula* (F), *Dalbergia latifolia* (G), *Delonix regia* (H), *Entada phaseoloides* (I), *Hardwickia binata* (J), *Peltophorum pterocarpum* (K), *Senegalia catechu* (L), *Sesbania sesban* (M), *Vachellia nilotica* (N).

**Table S1.** Physical characteristics of the seeds of fourteen selected tree species belonging to the Fabaceae family.

Species	Colour	Shape	Seed mass, mg
<i>A. auriculiformis</i>	Brown	Oblong-ovate	33 ± 2
<i>A. concinna</i>	Brown	Ovate-globular	224 ± 5
<i>A. lebbbeck</i>	Brown	Flat-elliptic	74 ± 1
<i>A. odoratissima</i>	Brown	Oblong-elliptic	159 ± 3
<i>B. racemosa</i>	Reddish-brown	Ovoid-compressed	206 ± 5
<i>C. fistula</i>	Light brown	Flattened ovate	292 ± 6
<i>D. latifolia</i>	Light brown	Reniform-flattened	93 ± 3
<i>D. regia</i>	Glossy brown	Oblong	510 ± 5
<i>E. phaseoloides</i>	Dark red-brown	Heart shaped	23623 ± 30
<i>H. binata</i>	Light brown	Oblong ovate	295 ± 5
<i>P. pterocarpum</i>	Light brown	Oblong	94 ± 10
<i>S. catechu</i>	Brown	Elliptic-ovate	57 ± 3
<i>S. sesben</i>	Brownish green	Narrow kidney shaped	15 ± 1
<i>V. nilotica</i>	Brown	Circular-ovate	198 ± 4

**Table S2.** Sum of SFA, MUFA, PUFA and UFA (%) and fatty acids ratios in the seed oils of fourteen selected tree species belonging to the Fabaceae family.

Species	ΣSFA	ΣMUFA	ΣPUFA	ΣUFA	Fatty acids ratio ΣUFA/ΣSFA
<i>A. auriculiformis</i>	18.9	25.3	55.7	81.1	4.3
<i>A. concinna</i>	11.3	33.0	55.7	88.7	7.8
<i>A. lebbbeck</i>	30.0	23.0	47.0	70.0	2.3
<i>A. odoratissima</i>	21.3	14.4	64.3	78.7	3.7
<i>B. racemosa</i>	11.1	34.8	54.1	89.0	8.0
<i>C. fistula</i>	10.4	34.7	54.9	89.6	8.6
<i>D. latifolia</i>	27.0	23.3	49.7	73.0	2.7
<i>D. regia</i>	27.5	14.9	57.6	72.5	2.6
<i>E. phaseoloides</i>	14.9	25.3	59.8	85.1	5.7
<i>H. binata</i>	36.1	21.7	42.3	63.9	1.8
<i>P. pterocarpum</i>	33.1	20.0	47.0	66.9	2.0
<i>S. catechu</i>	24.3	33.1	42.6	75.7	3.1
<i>S. sesben</i>	11.6	33.3	55.1	88.4	7.6
<i>V. nilotica</i>	20.2	26.4	53.4	79.8	4.0

ΣSFA, sum of saturated fatty acids; ΣMUFA, sum of monounsaturated fatty acids; ΣPUFA, sum of polyunsaturated fatty acids; ΣUFA, sum of unsaturated fatty acids.

**Table S3.** Content of squalene and total carotenoids, sterols, and tocochromanols (mg/100 g dw seeds) in the seeds of fourteen selected tree species belonging to the Fabaceae family.

Species	Squalene	Total		
		Carotenoids	Sterols	Tocochromanols
<i>A. auriculiformis</i>	nd	3.2 ± 0.2	45.2 ± 1.8	14.7 ± 0.6
<i>A. concinna</i>	nd	0.1 ± 0.0	44.5 ± 3.7	2.2 ± 0.2
<i>A. lebbbeck</i>	nd	1.5 ± 0.1	33.1 ± 1.4	14.4 ± 0.9
<i>A. odoratissima</i>	nd	1.1 ± 0.1	31.7 ± 1.5	16.5 ± 0.1
<i>B. racemosa</i>	1.1 ± 0.1	0.3 ± 0.0	31.5 ± 1.5	5.8 ± 0.3
<i>C. fistula</i>	9.5 ± 0.3	0.3 ± 0.0	43.8 ± 1.8	7.8 ± 0.3
<i>D. latifolia</i>	nd	0.4 ± 0.0	42.7 ± 1.8	30.8 ± 1.4
<i>D. regia</i>	nd	0.4 ± 0.0	39.0 ± 1.6	11.3 ± 0.1
<i>E. phaseoloides</i>	nd	tr	14.7 ± 0.7	6.1 ± 0.2
<i>H. binata</i>	nd	0.7 ± 0.0	127.9 ± 5.9	43.3 ± 1.7
<i>P. pterocarpum</i>	nd	0.8 ± 0.0	53.6 ± 2.5	16.1 ± 0.4
<i>S. catechu</i>	nd	0.7 ± 0.0	74.9 ± 2.9	7.6 ± 0.2
<i>S. sesben</i>	2.0 ± 0.1	1.1 ± 0.1	47.1 ± 1.7	10.1 ± 0.3
<i>V. nilotica</i>	2.8 ± 0.2	0.2 ± 0.0	47.1 ± 1.6	8.1 ± 0.3

Nd, not detected, tr, trace amount.