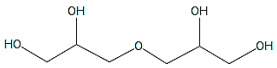
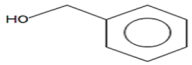
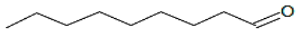
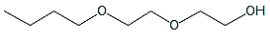
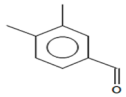
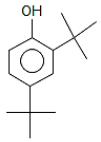
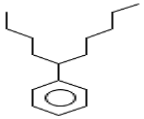
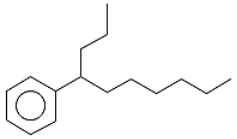
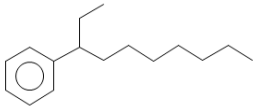
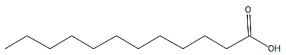
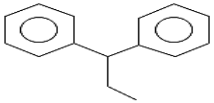
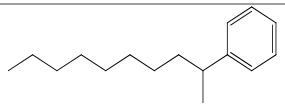
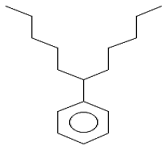
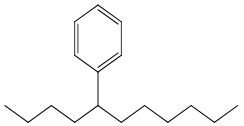
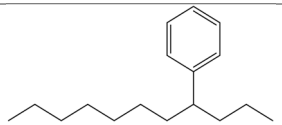
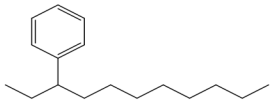
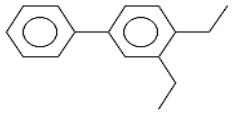
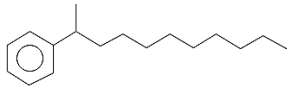
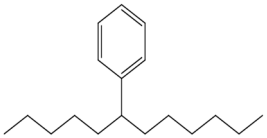
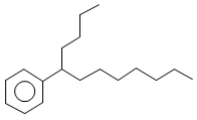
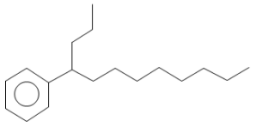
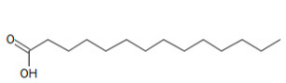
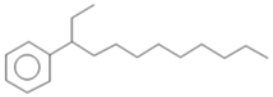
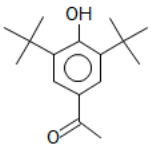
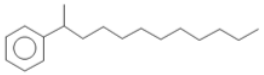
Table S1: Identification of volatile compounds by GC-MS of *Amaranthus* fat and cake seed extracts.

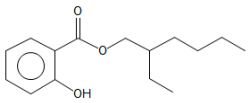
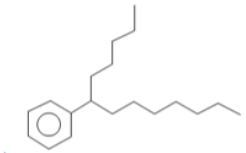
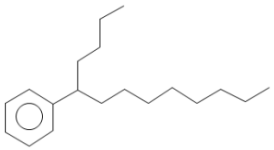
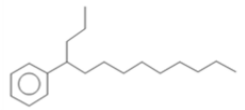
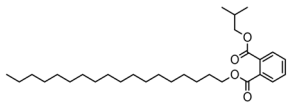
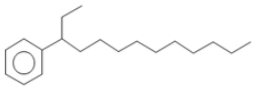
RT	Name of compound	structure	formula	Oil seed (fats fraction)								Seed cake (defatted fraction)								Ref
				Panam		Kharkiv		Lera		Berry		Panam		Kharkiv		Lera		Berry		
				Auch	Riscle	Auch	Riscle	Auch	Riscle	Auch	Riscle	Auch	Riscle	Auch	Riscle	Auch	Riscle	Auch	Riscle	
5.11	Diglycerol		$C_6H_{14}O_5$									X	X	X		X		X		[82]
6.05	Benzyl alcohol		C_7H_8O									X	X	X		X		X	X	[83]
6.92	Nonanal		$C_9H_{18}O$									X	X	X		X		X	X	[83]
8.11	Ethanol, 2-(2-butoxyethoxy)-		$C_8H_{18}O_3$									X	X	X		X		X	X	[84]
8.73	Benzaldehyde, 3,4-dimethyl-		$C_9H_{10}O$									X	X	X	X	X	X	X	X	[85]

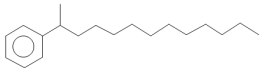
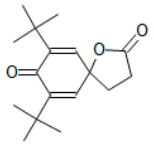
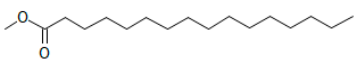
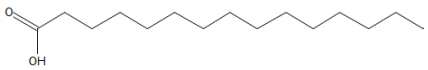
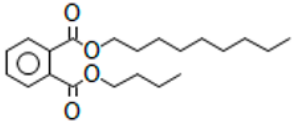
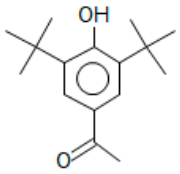
https://doi.org/10.3390/agronomy15030672

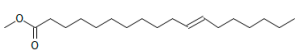
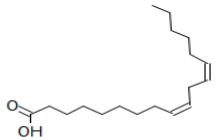
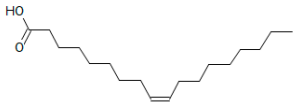
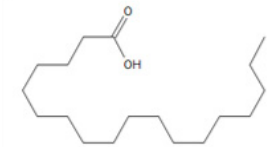
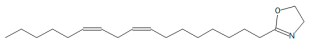
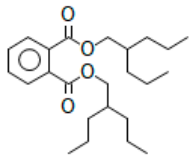
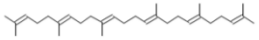
12.87	2,4-Di-tert-butylphenol		$C_{14}H_{22}O$								X	X	X	X	X	X	X	X	X	[86]
13.18	Benzene, (1-butylhexyl)-		$C_{16}H_{26}$	X	X	X	X	X	X	X	X	X	X		X	X				[87]
13.32	Benzene, (1-propylheptyl)-		$C_{16}H_{26}$	X	X	X	X	X	X	X	X	X	X		X					[87]
13.61	Benzene, (1-ethyloctyl)-		$C_{16}H_{26}$	X	X	X	X	X	X	X	X	X	X		X					[87]
13.65	Dodecanoic acid (lauric acid)		$C_{12}H_{24}O_2$												X					[88]
13.78	Benzene, 1,1'-propylidenebis-		$C_{15}H_{16}$	X	X							X			X					[89]
14.14	Benzene, (1-methylnonyl)-		$C_{17}H_{28}$	X	X	X	X	X	X	X	X	X	X		X	X	X	X		[90]
14.45	Benzene, (1-pentylhexyl)-		$C_{17}H_{28}$	X	X	X	X	X	X	X	X	X	X		X	X		X	X	[90]

14.52	Benzene, (1-butylheptyl)-		$C_{17}H_{28}$	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	[90]
14.66	Benzene, (1-propyloctyl)-		$C_{17}H_{28}$	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	[90]
14.95	Benzene, (1-ethylnonyl)-		$C_{17}H_{28}$	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	[90]
15.4	1,1'-Biphenyl, 3,4-diethyl-		$C_{16}H_{18}$										X	X					X	[81]
15.45	Benzene, (1-methyldecyl)-		$C_{17}H_{28}$	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	[90]
15.69	Benzene, (1-pentylheptyl)-		$C_{18}H_{30}$	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	[81]
15.74	Benzene, (1-butyloctyl)-		$C_{18}H_{30}$	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	[81]

15.9	Benzene, (1-propylnonyl)-		$C_{18}H_{30}$	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	[81]
16.1	Tetradecanoic acid		$C_{14}H_{28}O_2$				X	X	X	X	X	X		X	X	X		X		[91]
16.19	Benzene, (1-ethyldecyl)-		$C_{18}H_{30}$	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	[81]
16.23	3,5-di-tert-Butyl-4-hydroxybenzaldehyde		$C_{16}H_{24}O_2$									X	X	X		X		X	X	[92]
16.66	Benzene, (1-methylundecyl)-		$C_{18}H_{30}$	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	[81]

16.7	2-Ethylhexyl salicylate (Benzoic acid, 2-hydroxy-, 2-ethylhexyl ester)		$C_{15}H_{22}O_3$									X						X	[93]
16.82	Benzene, (1-pentyloctyl)-		$C_{19}H_{32}$	X	X	X	X	X	X	X	X								[90]
16.9	Benzene, (1-butylnonyl)-		$C_{19}H_{32}$	X	X	X	X	X	X	X	X								[90]
17.05	Benzene, (1-propyldecyl)-		$C_{19}H_{32}$	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	[90]
17.3	Phthalic acid, isobutyl octadecyl ester		$C_{23}H_{36}O_5$									X	X	X		X		X	X	[94]
17.33	Benzene, (1-ethylundecyl)-		$C_{19}H_{32}$	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	[90]

17.77	Benzene, (1-methyl-dodecyl)-		$C_{19}H_{32}$	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	[90]
17.82	7,9-Di-tert-butyl-1-ox-aspiro(4,5)deca-6,9-diene-2,8-dione		$C_{17}H_{24}O_3$									X	X	X		X		X	X	[95]
17.86	Hexadecanoic acid, methyl ester		$C_{17}H_{34}O_2$		X	X		X	X		X	X		X			X	X	X	[96]
18.28	n-Hexadeca-noic acid		$C_{17}H_{34}O_2$	X	X	X	X	X				X	X	X	X	X	X	X	X	[97]
18.32	Phthalic acid, butyl nonyl ester		$C_{18}H_{26}O_4$									X	X	X		X		X	X	[98]
18.56	3,5-di-tert-Bu-tyl-4-hydrox-y-phenylpropi-onic acid		$C_{17}H_{26}O_3$									X	X	X		X		X	X	[99]

19.6	11-Octadecenoic acid, methyl ester		$C_{19}H_{36}O_2$			X					X	X								[100]
19.99	9,12-Octadecadienoic acid (Z,Z)- / Linoleic acid		$C_{18}H_{32}O_2$		X	X					X	X	X	X		X		X	X	[22]
20.1	9-Octadecenoic acid (Z)-/ Oleic acid		$C_{18}H_{34}O_2$	X	X	X	X	X	X		X	X	X	X				X		[22]
20.24	Octadecanoic acid		$C_{18}H_{36}O_2$	X	X	X	X	X	X	X		X	X	X		X		X	X	[100]
21.59	2-((8Z,11Z)-Heptadeca-8,11-dien-1-yl)-4,5-dihydrooxazole		$C_{20}H_{35}NO$																X	[101]
23.58	Phthalic acid, di(2-propylpentyl) ester		$C_{24}H_{38}O_4$	X	X	X						X								[102]
25.99	Squalene		$C_{30}H_{50}$	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	[103]