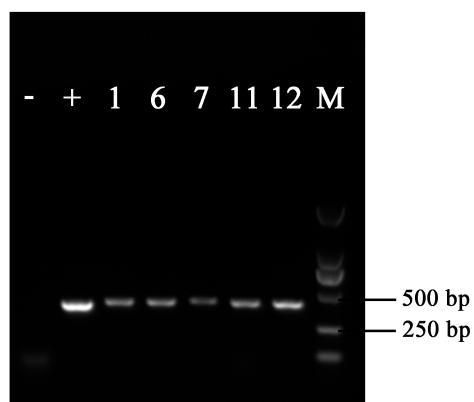


**Supplementary Figure. S1** PCR analysis of putative transformants of *GmDof4*

Expected 671 bp products was amplified by PCR from DNA isolated of putative *GmDof4* overexpression plants using *GmDof4-F/R* primer pair. +, pBIN438-*GmDof4* plasmid templated as positive control, -, untransformed sample, M, DNA maker.



**Supplementary Figure. S2** PCR analysis of putative transformants of *GmDof11*

Expected 477 bp products was amplified by PCR from DNA isolated of putative *GmDof11* overexpression plants using *GmDof11-F/R* primer pair. -, untransformed sample, +, pBIN438-*GmDof11* plasmid templated as positive control, M, DNA marker.



**Supplementary Table S1** Amplification primers used for Semi-quantitative and quantitative RT-PCR

Primers	sequence (5'-3')	Tm (°C)	Length of products (bp)
GmDof4-F	ACCCCACCATCAGAACCA	56	671
GmDof4-R	GCATCCCCGACAAATCAA		
GmDof11-F	TCGCCAATGTTAGTGTCTGC	58	477
GmDof11-R	TAAGACAAATGAGGGAGTGTAGTG		
qGmDof4-F	GTAACTCCACTCTCCCCGAT	55	135
qGmDof4-R	TTTACTATGCATCCCCGACA		
qGmDof11-F	GCCTCATCCAGAACAAAGCTCT	60	186
qGmDof11-R	GATGATCTCTTCTCTGCATCCTC		
qBnActin-F	TCTTCCTCACGCTATCCTCCG	57	144
qBnActin-R	AGCCGTCTCCAGCTTGC		
CRA1-F	TAGCCAGCCACCAGAACATCAG	57	172
CRA1-R	GTGTGAAGCCATTAGGATGTT		
LACS-F	GTCATTCTAAAGAGTGGTGGCT	58	188
LACS-R	GGGTACAGATTCAAGGCGTAT		
accD-F	ACTGAATGGATTGCCGAGAT	59	163
accD-R	TTCCTCCAAGAACATCGAACCT		
FAB2-F	CTAGTTACAAAGTTGAGAACAGTG	52	140
FAB2-R	CCACAGTAAAAACTGAGTACAGAC		
FAD6-F	GCCATGATATCAACGTACACAT	55	245
FAD6-R	TGCTTCTTGAGGAATGTTATTGG		
FAD2-F	GACAGAGACTACGGAATCTTGAACA	58	218
FAD2-R	TGCCGTCCGGTTCCACATAGATA		
FAD7-F	GGGAGCCTGATAAGTCTGGACC	54	96
FAD7-R	CATCTCCTCRTCSCTCACAWAATG		
FAD8-F	GGAAAGTACTACAGAGAACCG	54	136
FAD8-R	GTTTGGATCTGCCTCATAGTACA		
FAE-F	TGAGTTGGCTTACGGAGGCTA	55	173
FAE-R	GCTTAACCGGGTATTGTCATGC		

**Supplementary Table S2** Composition of the major fatty acids in *GmDof4* and *GmDof11* transgenic seeds.

	Y6	DOF4-9	DOF4-13	DOF11-1	DOF11-6
C16:0	4.05 ± 0.01	4.27 ± 0.04	3.32 ± 0.04	3.89 ± 0.28	4.32 ± 0.26
C18:0	1.54 ± 0.01	1.34 ± 0.01	1.5 ± 0.07	1.16 ± 0.32	1.72 ± 0.03
C18:1	62.8 ± 0.86	67.11 ± 0.07**	71.32 ± 0.1**	68.15 ± 0.67**	69.73 ± 0.63**
C18:2	20.47 ± 0.61	17.37 ± 0.07**	15.1 ± 0.27**	16.78 ± 0.04**	16.67 ± 0.08**
C18:3	11.1 ± 0.25	9.89 ± 0.18*	8.74 ± 0.14**	9.79 ± 0.2*	7.22 ± 0.01**

The data represent the means ± SD of three replicate experiments and were analyzed by Student's t-test ( $n = 3$ ). \* $P < 0.05$ ; \*\* $P < 0.01$ .