

Table S2. A Variance analysis of *GmWRI14* expression in different tissues of soybean

Group	Linoleic acid content		Name	relative expression in leaves		relative expression in stem		relative expression in roots		relative expression in seed	
	mean	Sig.		Mean	Sig.	mean	Sig	mean	Sig.	mean	Sig.
(A)Soybean lines with low linoleic acid	34.23	B	YR063	4.12	d	25.12	b	22.24	b	46.23	ab
			YR004	4.23	d	24.23	b	23.79	b	45.80	ab
			YR007	4.62	d	23.22	b	21.21	b	45.23	ab
			YR016	4.12	d	26.21	a	19.21	c	52.25	a
			YR032	4.25	d	25.22	b	26.42	b	52.32	a
			YR030	3.22	d	28.25	a	30.13	b	45.42	ab
			YR024	3.62	d	28.22	a	31.12	b	46.23	ab
(B)Soybean lines with high	66.23	A	t6316	0.87	e	12.12	d	16.60	c	30.26	b
			T6030	1.23	e	13.12	d	17.45	c	29.75	b
			T6049	1.22	e	12.22	d	18.32	c	26.12	b

linoleic acid	T6098	1.45	e	11.12	d	18.72	c	28.12	b
	t6156	1.43	e	12.21	d	17.99	c	28.22	b
	T6033	1.41	e	14.43	d	18.11	c	29.12	b
	T6142	1.42	e	12.52	d	18.23	c	28.81	b

Note: The different uppercase letters indicate significant differences at $P < 0.01$, the different lower letters indicate significant differences at $P < 0.05$, as determined by Duncan's multiple-range test

Table S2. B The Correlation between the *GmWRI14* expression and linoleic acid content

		linoleic acid content	Expression in leaves	Expression in stems	Expression in roots	Expression in seed
linoleic acid content	Pearson relative	1	-0.901**	-0.910**	-0.906**	-0.912**
Expression in leaves	Pearson relative	-0.901**	1	0.911**	0.897**	0.811**
Expression in stems	Pearson relative	-0.910**	0.911**	1	0.827**	0.818**

Expression in roots	Pearson relative	-0.906**	0.897**	0.827**	1	0.854**
Expression in seed	Pearson relative	-0.912**	0.811**	0.818**	0.854**	1
