

Table S1. Dry weight of broad-leaved and total annual weeds, number and weight of pods plant⁻¹, and number of seeds plant⁻¹ of peanut (*Arachis hypogaea* L.) as affected by the interaction of nitrogen fertilization levels (N), and time (early and late) weed removal (W), during two growing seasons

Treatment	Dry broad-leaved weeds				Dry total annual weeds		Number of pods plant ⁻¹	Weight of pods (g plant ⁻¹)	Number of seeds plant ⁻¹		
	(g m ⁻²)										
	2018	2019	2018	2019	2018	2019			2018	2019	
N ₁	W ₁	957.9de	1032.0gh	1250.8d	1367.2fg	6.00r	6.00r	9.60n	9.67p	10.80r	10.87uu
	W ₂	835.1ef	832.9i	1079.7e	1110.0hi	8.67rq	10.00nopq	14.12n	14.82no	17.35nop	15.18stu
	W ₃	665.7g	704.9j	868.4f	940.1j	12.33klmn	14.00lm	19.85ghijk	20.46ijkl	22.20jklm	25.88op
	W ₄	297.0hi	315.0l	408.6ghi	439.4lm	20.67fgh	21.67hi	26.56e	27.15fg	37.20fg	40.78ijkl
	W ₅	113.3kl	106.8nop	165.4klm	147.6qrs	25.33cde	26.67de	33.54cd	33.66d	45.60cde	50.85efg
	W ₆	19.85l	21.45op	26.2m	21.99s	26.67bcde	28.33cd	33.74cds	34.95cd	48.00bcde	54.12def
	W ₇	21.72l	21.72op	30.89m	24.73s	26.33bcde	26.33def	32.66d	33.17de	47.40bcde	50.65efg
	W ₈	34.98l	26.86op	60.29m	38.73rs	22.00f	23.33fgh	26.85e	27.82f	39.60f	46.47gh
	W ₉	11.42l	7.34p	85.85m	101.0qrs	19.33ghi	20.00ijk	20.97fgh	22.15hij	34.80gh	37.02klm
	W ₁₀	186.5ijk	186.5lmn	347.4ghij	381.6nm	11.33lmno	11.67nmop	20.31ghi	21.15hijk	20.40klmno	21.60pqr
	W ₁₁	862.5e	684.63j	1089.0e	935.8j	6.67qr	8.67pqr	14.96lm	13.14o	12.17qr	12.84tu
	W ₁₂	1159.2b	1258.2e	1512.7c	1648.4d	3.67s	3.33s	10.10n	9.96p	6.60s	6.01u
N ₂	W ₁	1103.8bc	37.94op	51.97m	1545.1de	9.00opq	9.67opq	15.09lm	15.90mno	16.20opq	16.87rst
	W ₂	884.8e	54.19nop	94.23m	1175.0h	13.00jklm	13.00lmn	18.81hijk	18.31klmn	23.40ijkl	23.87poq
	W ₃	725.5fg	111.1nop	257.1jkl	1006.6ij	17.67i	18.33jk	23.54f	24.19gh	31.80h	33.26m
	W ₄	731.1fg	245.9lm	448.8g	509.6l	21.67fg	22.33ghi	29.08e	30.25ef	39.00fg	42.25hijk
	W ₅	122.5jkl	1131.5fg	1178.3de	173.4pqr	27.33bcd	28.33cd	35.98bc	38.30bc	49.20bcd	55.37cde
	W ₆	37.12l	1672.2c	1989.0b	29.77s	28.33b	31.00c	37.87b	40.55b	51.00b	58.78bcd
	W ₇	1025.0cd	35.61op	35.59m	39.99rs	27.67bc	28.00cde	34.77cd	36.21cd	49.80bc	52.23ef
	W ₈	866.8e	64.18nop	82.16m	94.83qrs	21.33fg	22.00ghi	28.27e	29.87f	38.40fg	42.50hij
	W ₉	712.3fg	190.8lmn	271.0ijkl	295.4nop	18.33i	20.00ijk	23.37f	23.61hi	33.00h	36.05lm
	W ₁₀	338.9h	271.8lm	413.1gh	462.4lm	15.00j	15.00l	19.85hijk	20.15ijkl	27.00i	27.79no
	W ₁₁	127.6jkl	1148.5efg	1166.2de	1458.0ef	10.33nop	11.33mnopq	16.83klm	17.57lmn	18.60mno	21.52poq
	W ₁₂	35.61l	1797.4b	2071.2b	2222.3b	7.67qr	8.33qr	14.74lm	14.94no	13.80pqr	15.81dtu
N ₃	W ₁	1161.3b	1477.5d	47.77m	1899.3c	10.67mnop	11.00mnopq	16.98jklm	16.46mno	19.20lmno	19.67qrs
	W ₂	835.5ef	942.3hi	71.68m	1293.1g	13.33jkl	14.00lm	20.08ghij	18.32klmn	24.00ijk	25.75op
	W ₃	696.1g	841.1i	133.4lm	1154.91h	18.33hi	18.00k	26.63e	23.67hi	33.00h	31.87mn
	W ₄	360.7h	507.9k	349.4ghij	703.9k	25.00de	25.67def	34.85cd	35.87cd	45.00de	49.64fg
	W ₅	129.9jkl	151.5mno	1189.3de	215.1opq	32.67a	34.00ab	44.65a	47.30a	58.80a	63.60ab
	W ₆	38.43l	65.28nop	2011.4b	73.75rs	33.67a	35.33a	45.98a	48.39a	60.60a	65.30a
	W ₇	59.80kl	61.37nop	79.62m	88.21qrs	28.67b	31.00bc	43.44a	45.39a	51.60b	59.97bc
	W ₈	106.3kl	108.9nop	147.3klm	156.9qrs	24.33e	25.00efg	35.96bc	38.16bc	43.80e	45.93ghi
	W ₉	148.0jkl	155.5mno	281.7hijk	310.1no	21.33fg	21.33hij	28.21e	28.29f	38.40fg	39.10jkl
	W ₁₀	252.2hij	279.6lm	463.1g	512.2l	17.33i	18.33jk	22.94fg	23.41hi	31.20h	32.86mn
	W ₁₁	1105.3bc	1178.5ef	1400.2c	1507.3e	14.33jk	14.33lm	17.89hijk	19.42jklm	25.80ij	25.82op
	W ₁₂	1931.5a	2091.5a	2339.5a	2550.7a	12.00klmn	12.67lmno	17.29ijkl	16.95lmn	21.60jklmn	22.95opq
p-value	<.001**	<.001**	<.001**	<.001**	<.001**	0.045*	<.001**	<.001**	<.001**	0.002*	

*, ** refer the significant variation at ($p \leq 0.05$) and ($p \leq 0.01$), respectively. Means sharing the same letter in each column are not significantly different at $p \leq 0.05$ by Duncan's multiple range test. N₁= 48 kg N ha⁻¹, N₂= 96 kg N ha⁻¹, N₃= 144 kg N ha⁻¹, W₁= weed-free until 2 WAE, W₂= weed-free until 4 WAE, W₃= weed-free until 6 WAE, W₄= weed-free until 8 WAE, W₅= weed-free until 10 WAE, W₆= weed-free for the whole season, W₇= weedy until 2 WAE, W₈= weedy until 4 WAE, W₉= weedy until 6 WAE, W₁₀= weedy until 8 WAE, W₁₁= weedy until 10 WAE., W₁₂= weedy for the whole season, WAE= weeks after emergence.

Table S2. Weight of seeds plant⁻¹, weight of 100 seeds, N use efficiency, seeds oil content and pods yield of peanut (*Arachis hypogaea* L.) as affected by the interaction of nitrogen fertilization levels (N), and time (early and late) weed removal (W), during two growing seasons

Treatment		Weight of seeds (g plant ⁻¹)		Weight of 100 seeds (g)		N use efficiency (kg seeds kg ⁻¹ N)		Seeds oil content (%)		Pods yield (t ha ⁻¹)	
		2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
N ₁	W ₁	7.10o	6.51n	10.55o	10.26s	15.33jkl	16.50ijkl	49.20bc	50.84b	0.86n	0.91op
	W ₂	10.88n	12.43m	24.09m	18.86qr	18.00ijk	20.50ghi	49.26b	49.37def	1.13lmn	1.18nop
	W ₃	16.69ijk	17.50ijk	33.57ij	33.80lm	27.67defg	28.50def	48.41e	49.63cde	1.51jklm	1.55klmn
	W ₄	22.39efgh	22.69gh	52.78ef	53.70h	38.67bc	40.17bc	48.43e	49.57cdef	2.33fgh	2.37fgh
	W ₅	29.92bc	31.33cd	64.23d	60.79fg	43.00ab	44.33ab	49.20bc	50.24bc	3.59d	3.64de
	W ₆	29.74bc	32.38c	66.56d	67.30e	44.50a	46.17a	50.46a	52.02a	3.73cd	3.76cde
	W ₇	28.19cd	28.55de	63.76d	62.38ef	41.67abc	42.33abc	49.04bcd	50.09cd	3.65d	3.68de
	W ₈	22.85efg	23.77fgh	51.56ef	51.56hi	38.17c	38.50c	48.54e	49.53def	2.70ef	2.76f
	W ₉	16.67ijk	17.27ijkl	42.42h	42.42jk	30.00d	30.67d	48.45e	49.43def	1.76ijk	1.79ijklm
	W ₁₀	17.20ijk	18.10ij	25.00lm	25.00opq	23.83fgh	24.83efg	48.43e	49.47def	1.33klmn	1.38lmno
	W ₁₁	11.83n	12.97m	15.86no	16.50r	19.50hij	20.67ghi	48.34e	49.40def	1.07mn	1.15nop
	W ₁₂	7.01o	6.12n	10.18o	10.30s	13.67klmn	15.17jklm	48.34e	49.33ef	0.85n	0.81p
N ₂	W ₁	12.13n	13.19m	15.76no	16.09rs	10.00mno	10.67mno	48.45e	49.15efg	1.13lmn	1.13nop
	W ₂	15.45klm	18.28ij	23.05m	26.49nop	12.42lmno	12.42lmno	48.45e	48.85fgh	1.27klmn	1.29mnop
	W ₃	19.82ghi	20.97hi	38.21hi	38.21kl	14.75jklm	15.92ijkl	48.46e	48.86fgh	1.57jkl	1.60klmn
	W ₄	25.31de	26.73ef	55.76e	55.76gh	24.17efgh	24.92efg	48.45e	48.95efgh	2.71ef	2.74fg
	W ₅	31.82b	33.27bc	78.06bc	80.23cd	28.75de	29.17de	48.67de	49.03efgh	4.23b	4.10bcd
	W ₆	32.89b	36.53b	80.78b	84.25c	29.42d	31.17d	48.77cde	49.43def	4.28b	4.32b
	W ₇	30.41bc	31.80cd	80.90b	80.53cd	28.25def	29.42de	48.63de	49.03efgh	4.22b	4.21bc
	W ₈	23.27ef	25.44efg	64.22d	65.61ef	24.25efgh	24.92efg	48.54e	48.87fgh	3.09e	2.12hij
	W ₉	20.37fgh	20.90hi	48.74fg	50.33hi	19.42hij	19.67ghij	48.50e	48.94efgh	2.13ghi	2.13hij
	W ₁₀	15.65klm	16.15jklm	31.17jkl	30.15mno	13.92klmn	14.42klmn	48.48e	48.88efgh	1.49jklm	1.52klmn
	W ₁₁	13.19mn	13.75klm	22.87m	20.95pqr	11.25lmno	12.25lmno	48.44e	48.84fgh	1.27klmn	1.26mnop
	W ₁₂	11.48n	12.57m	15.97no	21.09pqr	10.08mno	9.92no	48.41e	48.91efgh	1.06mn	1.07nop
N ₃	W ₁	12.85mn	13.57lm	19.66mn	20.68pqr	8.22o	9.06o	48.34e	48.34h	1.36klm	1.49klmn
	W ₂	16.89ijk	18.20ij	31.09jkl	30.73mno	10.06mno	10.22mno	48.42e	48.34h	1.60hkl	1.62jklm
	W ₃	23.26ef	23.54fgh	44.02gh	46.26ij	11.78lmno	12.06lmno	48.42e	48.42gh	2.24gh	2.25ghi
	W ₄	30.48bc	31.80cd	74.79bc	76.98d	17.78ijk	18.78hijk	48.41e	48.41gh	3.51d	3.55e
	W ₅	39.08a	41.86a	92.54a	95.23ab	22.61hi	22.78gh	48.52e	48.52gh	5.20a	5.26a
	W ₆	41.07a	43.90a	94.79a	98.14a	23.33gh	23.67fgh	48.52e	48.52gh	5.44a	5.58a
	W ₇	38.32a	41.07a	90.91a	91.66b	22.17hi	22.61gh	48.45e	48.45gh	5.18a	5.15a
	W ₈	31.30bc	33.00bc	73.12c	75.22d	21.67hi	22.06gh	48.46e	48.46gh	4.10bc	4.21bc
	W ₉	24.32e	25.23efg	53.89ef	55.80gh	15.22jkl	15.33jklm	48.43e	48.43gh	2.54fg	2.63fg
	W ₁₀	19.31hij	20.87hi	31.89jk	31.87mn	12.22lmno	12.56lmno	48.36e	48.36h	1.94hjj	1.99hijk
	W ₁₁	16.41jkl	17.18ijkl	25.52klm	24.09pq	9.61no	10.22mno	48.34e	48.38h	1.62jkl	1.91hijkl
	W ₁₂	13.30lmn	14.47jklm	20.44mn	21.09pqr	8.28o	8.00o	48.34e	48.34h	1.32klmn	1.32mnop
p-value		0.002**	0.002**	<.001**	<.001**	<.001**	<.001**	<.001**	<.001**	0.001**	0.007**

** refer the significant variation at ($p \leq 0.01$), respectively. Means sharing the same letter in each column are not significantly different at $p \leq 0.05$ by Duncan's multiple range test. N₁= 48 kg N ha⁻¹, N₂= 96 kg N ha⁻¹, N₃= 144 kg N ha⁻¹, W₁= weed-free until 2 WAE, W₂= weed-free until 4 WAE, W₃= weed-free until 6 WAE, W₄= weed-free until 8 WAE, W₅= weed-free until 10 WAE, W₆= weed-free for the whole season, W₇= weedy until 2 WAE, W₈= weedy until 4 WAE, W₉= weedy until 6 WAE, W₁₀= weedy until 8 WAE, W₁₁= weedy until 10 WAE., W₁₂= weedy for the whole season, WAE= weeks after emergence.

Table S3. Seeds, straw, oil and protein yield and seed harvest index of peanut (*Arachis hypogaea* L.) as affected by the interaction of nitrogen fertilization levels (N), and time (early and late) weed removal (W), during two growing seasons

Treatments		Seeds yield		Straw yield		Oil yield		Protein yield		Seed harvest index	
		(t ha ⁻¹)									
		2018	2019	2018	2019	2018	2019	2018	2019		2018
N ₁	W ₁	0.73o	0.79o	2.01no	1.97p	0.36no	0.40pq	0.17m	0.18kl	0.26abcd	
	W ₂	0.86no	0.98no	2.59klmn	2.71mno	0.47mno	0.50nopq	0.20lm	0.23jkl	0.23cdef	
	W ₃	1.32lm	1.36klm	3.86ij	3.95ij	0.64kl	0.67klmn	0.31ghij	0.32ghi	0.24bcde	
	W ₄	1.84hij	1.91fgh	4.83h	5.01gh	0.89fgh	0.95ghi	0.43ef	0.45de	0.26abcd	
	W ₅	2.05efghi	2.11efg	6.49ef	6.57e	1.01efg	1.06fg	0.48e	0.50de	0.20ef	
	W ₆	2.12efghi	2.20ef	6.76de	6.76de	1.07e	1.14ef	0.50de	0.52cd	0.20ef	
	W ₇	1.98fghij	2.02fgh	6.60def	6.66de	0.97efgh	1.01fgh	0.47e	0.48de	0.19f	
	W ₈	1.82hij	1.83ghi	5.46g	5.56fg	0.88gh	0.91ghi	0.43ef	0.43ef	0.22def	
	W ₉	1.43kl	1.47jkl	4.40hi	4.47hi	0.69ijkl	0.72jklm	0.34ghi	0.34gh	0.23cdef	
	W ₁₀	1.13lmn	1.18klmn	2.85klm	2.90lmno	0.55klm	0.58lmno	0.27hijkl	0.28hij	0.28ab	
	W ₁₁	0.93no	0.98no	2.21mno	2.21op	0.45mno	0.49opq	0.22klm	0.23jkl	0.28ab	
	W ₁₂	0.65o	0.72o	1.88o	1.82p	0.31o	0.36q	0.15m	0.17l	0.24bcde	
N ₂	W ₁	0.95no	1.02mno	2.40klmno	2.39nop	0.46mno	0.50nopq	0.23jklm	0.25ijk	0.27abc	
	W ₂	1.18lmn	1.18klmn	2.92k	3.15klm	0.57klm	0.58lmno	0.29ghijk	0.29hij	0.28ab	
	W ₃	1.40klm	1.52ijk	3.87ij	3.91ij	0.68ijkl	0.74jkl	0.34ghi	0.37fg	0.26abcd	
	W ₄	2.30def	2.37e	6.09f	6.15ef	1.11de	1.16ef	0.57d	0.59c	0.26abcd	
	W ₅	2.74c	2.78c	8.74b	8.85b	1.33c	1.36cd	0.68c	0.70b	0.21ef	
	W ₆	2.80bc	2.97bc	8.98b	9.17b	1.37bc	1.47bc	0.70c	0.74de	0.21ef	
	W ₇	2.69c	2.80c	8.56b	8.61b	1.31c	1.37cd	0.67c	0.70b	0.21ef	
	W ₈	2.31de	2.37de	7.49c	7.59c	1.12de	1.16ef	0.57d	0.59c	0.22def	
	W ₉	1.85ghij	1.87fgh	6.77de	6.79de	0.90fgh	0.92ghi	0.45e	0.46de	0.21ef	
	W ₁₀	1.32lm	1.37kl	3.63j	3.67jk	0.64kl	0.67klmn	0.32ghi	0.34gh	0.26abcd	
	W ₁₁	1.07mn	1.17klmn	2.75klm	2.97klmn	0.52lmn	0.57lmno	0.26ijkl	0.28hij	0.27abc	
	W ₁₂	0.96no	0.94no	2.21lmno	2.20op	0.46mno	0.46opq	0.23jklm	0.23jkl	0.29a	
N ₃	W ₁	1.17lmn	1.29klmn	2.90kl	2.94lmn	0.57klm	0.63lmno	0.30ghijk	0.33gh	0.28ab	
	W ₂	1.44kl	1.46jkl	3.91ij	3.40jklm	0.70ijk	0.71jklm	0.36fg	0.37fg	0.26abcd	
	W ₃	1.68jk	1.72hij	6.43ef	6.56de	0.81hij	0.83ijk	0.44e	0.45de	0.19f	
	W ₄	2.54cd	2.68cd	8.93b	9.01b	1.23cd	1.30de	0.66c	0.70b	0.20ef	
	W ₅	3.23a	3.25ab	10.35a	10.50a	1.57a	1.58ab	0.85ab	0.85a	0.21ef	
	W ₆	3.33a	3.38a	10.64a	10.77a	1.62a	1.64a	0.88a	0.89a	0.21ef	
	W ₇	3.17a	3.23ab	10.20a	10.30a	1.53a	1.56ab	0.83ab	0.85a	0.21ef	
	W ₈	3.09ab	3.15ab	8.90b	8.95b	1.50ab	1.53ab	0.80b	0.82a	0.24bcde	
	W ₉	2.17efg	2.19ef	7.20cd	7.28cd	1.05ef	1.06fg	0.56d	0.57c	0.22def	
	W ₁₀	1.75ij	1.79ghij	4.75h	4.81h	0.84hi	0.87hij	0.45e	0.46de	0.26abcd	
	W ₁₁	1.37klm	1.46jkl	3.56j	3.55jkl	0.66jkl	0.71jklm	0.35gh	0.37fg	0.27abc	
	W ₁₂	1.18lmn	1.14lmn	2.74klm	2.74mno	0.57klm	0.55mnop	0.30ghijk	0.29hij	0.29a	
p-value		<.001**	<.001**	<.001**	<.001**	0.002**	0.004**	<.001**	<.001**	0.015*	

*, ** refer the significant variation at ($p \leq 0.05$) and ($p \leq 0.01$), respectively. Means sharing the same letter in each column are not significantly different at $p \leq 0.05$ by Duncan's multiple range test. N₁= 48 kg N ha⁻¹, N₂= 96 kg N ha⁻¹, N₃= 144 kg N ha⁻¹, W₁= weed-free until 2 WAE, W₂= weed-free until 4 WAE, W₃= weed-free until 6 WAE, W₄= weed-free until 8 WAE, W₅= weed-free until 10 WAE, W₆= weed-free for the whole season, W₇=

weedy until 2 WAE, W_8 = weedy until 4 WAE, W_9 = weedy until 6 WAE, W_{10} = weedy until 8 WAE, W_{11} = weedy until 10 WAE., W_{12} = weedy for the whole season, WAE= weeks after emergence.