

Table S1. Mean of weed plants (number m⁻²) in conventional (CCS) and organic (OCS) cropping systems on chickpea sampled on 2014 and 2015 at Foggia.

CS	Year	total weed	composition					
		no. m ⁻²	<i>Cirsium</i> spp.	<i>Fumaria</i> spp.	<i>Galium</i> spp.	<i>Muscaria</i> spp.	<i>Veronica</i> spp.	<i>Poaceae</i>
CCS	mean	6.7	1.2	0.9	0.1	0.8	3.8	0.1
OCS	mean	34.7	5.0	11.9	1.9	3.3	11.5	1.1

CS = cropping system; CCS = conventional cropping system; OCS = organic cropping system.

Table S2. Mean of protein subunit expression of eight chickpea genotypes grown under two contrasting cropping systems (CCS *vs* OCS).

CS	Factor	Level	convicilin / vicilin	vicilin / lectin	legumin A/B	glutelin
			ratio	ratio	ratio	%
CCS	genotype	Calia	5.66 a	2.73 a	1.30 f	14.7 d
		Kairo	5.17 a	2.49 b	1.64 f	13.2 d
		Nero Senise	3.37 b	2.44 b	5.21 a	20.2 ab
		Pascià	3.31 b	1.77 c	3.90 bc	19.7 a-c
		Principe	3.42 b	1.49 d	2.99 de	19.2 a-c
		Reale	3.18 bc	1.91 c	4.57 ab	18.0 bc
		Sultano	3.20 b	1.89 c	2.51 e	21.0 a
		Vulcano	2.44 c	1.53 d	3.50 cd	17.5 c
		SE	0.17	0.03	0.16	0.5
	year	2014	3.73 a	2.09 a	2.91 b	17.9 a
		2015	3.70 a	1.97 b	3.49 a	18.0 a
		SE	0.08	0.02	0.08	0.3
	interaction		ns	***	***	***
OCS	genotype	Calia	5.80 bc	3.40 cd	1.63 cd	14.7 ab
		Kairo	6.58 a-c	3.39 cd	1.79 a-c	13.0 b
		Nero Senise	6.94 a	4.18 a	1.91 ab	16.5 a
		Pascià	5.70 c	3.10 d	1.58 cd	13.0 b
		Principe	6.40 a-c	3.65 bc	1.76 a-d	16.5 a
		Reale	6.65 ab	3.93 ab	1.74 b-d	15.0 ab
		Sultano	6.38 a-c	3.69 bc	2.03 a	16.8 a
		Vulcano	6.03 bc	3.34 cd	1.51 d	16.0 ab
		SE	0.20	0.09	0.06	0.8
	year	2014	6.35 a	3.44 b	1.71	15.5 a
		2015	6.27 a	3.73 a	1.78	14.9 a
		SE	0.10	0.04	0.03	0.4
	interaction		**	***	ns	**
CCS		mean ± SE	3.72 ± 0.16	2.03 ± 0.08	3.20 ± 0.21	17.9 ± 0.5
OCS		mean + SE	6.31 ± 0.10	3.58 ± 0.08	1.74 ± 0.05	15.2 ± 0.4
OCS vs CCS		± %	+ 70%	-76%	-46%	-15%

CS = cropping system; CCS = conventional cropping system; OCS = organic cropping system; SE = standard error. Level of significance: ns = not significant; * $p \leq 5\%$; ** $p \leq 1\%$; *** $p \leq 1\%$. Levels not connected by the same letter are significantly different at $p \leq 5\%$.