Figure S1: Growth height (cm) of soybean and ragweed from a) Albenga (greenhouse trial), b) ES Mentor (greenhouse trial) c) Albenga (mean result of field trial 2017 and 2018), d) ES Mentor (field trial, 2017) in the course of the trial period in dependency of the ragweed density (0, 1, 3, 5 plants: R0, R1, R3, R5; n = 4; significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$)

Table S1: Results of Two-Way-ANOVA for yield and other growth parameters measured at harvest of soybean in dependency of the factors ragweed density (R) and variety; V1 = Albenga, V2 = ES Mentor; AGDM = aboveground dry matter; BGDM = belowground dry matter; n = 4; significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; interactions between main factors are not visualized as no significances were detected.

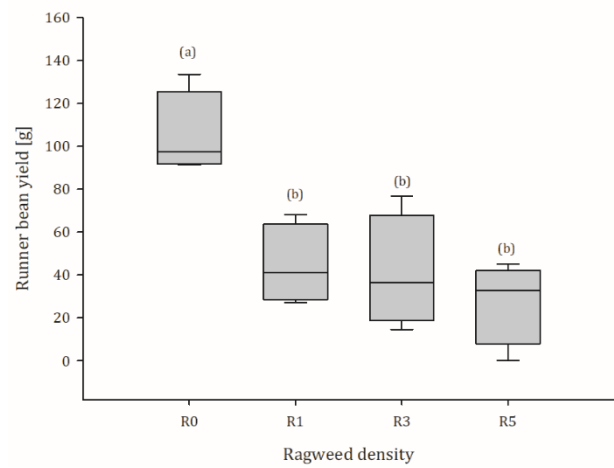|	R0		R1		R3		R5		R	V
	V1	**V2**	**V1**	**V2**	**V1**	**V2**	**V1**	**V2**		
Greenhouse trial										
AGDM soybean [g]	22 ± 6	31 ± 3	17 ± 4	27 ± 2	11 ± 5	20 ± 2	11 ± 3	28 ± 2	***	**
Yield soybean [g]	11 ± 3	15 ± 1	6 ± 3	12 ± 2	4 ± 5	8 ± 3	3 ± 2	10 ± 2	***	**
BGDM soybean [g]*	2 ± 1	2 ± 1	0.5 ± 0	1 ± 0.3	1 ± 0.3	1 ± 0.6	1 ± 0.3	1 ± 0.6	n.s.	n.s.
Number of nodules*	113 ± 13	129 ± 2	82 ± 21	64 ± 13	58 ± 47	55 ± 10	19 ± 12	42 ± 14	***	n.s.
Mean weight of nodules [mg]	6 ± 1	12 ± 4	7 ± 3	6 ± 1	3 ± 1	3 ± 1	3 ± 1	4 ± 0.6	*	n.s.
Mean $AGDM_R$ / pot [g]	--	--	4 ± 1	2 ± 1	3 ± 1	5 ± 1	4 ± 1	4 ± 1	--	--
Mean $AGDM_R$ / plant [g]	--	--	4 ± 1	2 ± 1	1 ± 0.5	2 ± 0.5	1 ± 0.2	1 ± 0.3	--	--
Field trial 2017										
AGDM soybean [g]	32 ± 6	41 ± 6	24 ± 6	27 ± 7	8 ± 1	15 ± 3	6 ± 1	13 ± 5	***	n.s.
Yield soybean [g]	23 ± 3	26 ± 5	16 ± 3	17 ± 5	5 ± 1	9 ± 2	4 ± 1	8 ± 3	***	n.s.
BGDM soybean [g]*	4 ± 1	4 ± 1	3 ± 1	3 ± 1	3 ± 1	2 ± 1	2 ± 1	2 ± 1	n.s.	n.s.
Number of nodules*	67 ± 27	114 ± 9	49 ± 29	39 ± 13	25 ± 9	39 ± 4	13 ± 11	24 ± 7	**	n.s.
Mean weight of nodules [mg]	7 ± 2	13 ± 4	7 ± 4	6 ± 2	4 ± 1	4 ± 2	3 ± 2	4 ± 2	*	n.s.
Mean $AGDM_R$ / plot [g]	--	--	163 ± 113	175 ± 104	254 ± 35	235 ± 113	224 ± 22	308 ± 103	--	--
Mean $AGDM_R$ / plant [g]	--	--	163 ± 113	175 ± 104	85 ± 31	87 ± 27	45 ± 29	62 ± 21	--	--
Field trial 2018										
AGDM soybean [g]	32 ± 4	--	15 ± 9	--	5 ± 2	--	6 ± 6	--	**	--
Yield soybean [g]	18 ± 0.5	--	8 ± 6	--	3 ± 1	--	3 ± 3	--	**	--
BGDM soybean [g]*	4 ± 2	--	3 ± 1	--	2 ± 2	--	2 ± 0.5	--	n.s.	--
Number of nodules*	103 ± 14	--	51 ± 23	--	24 ± 11	--	5 ± 6	--	***	--
Mean weight of nodules [mg]	13 ± 5	--	6 ± 3	--	4 ± 2	--	3 ± 2	--	**	--
Mean $AGDM_R$ / plot [g]	--	--	216 ± 134	--	205 ± 58	--	434 ± 284	--	--	--
Mean $AGDM_R$ / plant [g]	--	--	216 ± 134	--	68 ± 19	--	87 ± 57	--	--	--

* mean from sampling at T3 and T4

Figure S2: Runner bean grain yield per plant in dependency of the factor ragweed density (0, 1, 3, and 5 plants: R0, R1, R3, and R5; n = 4; different letters indicate significant differences)
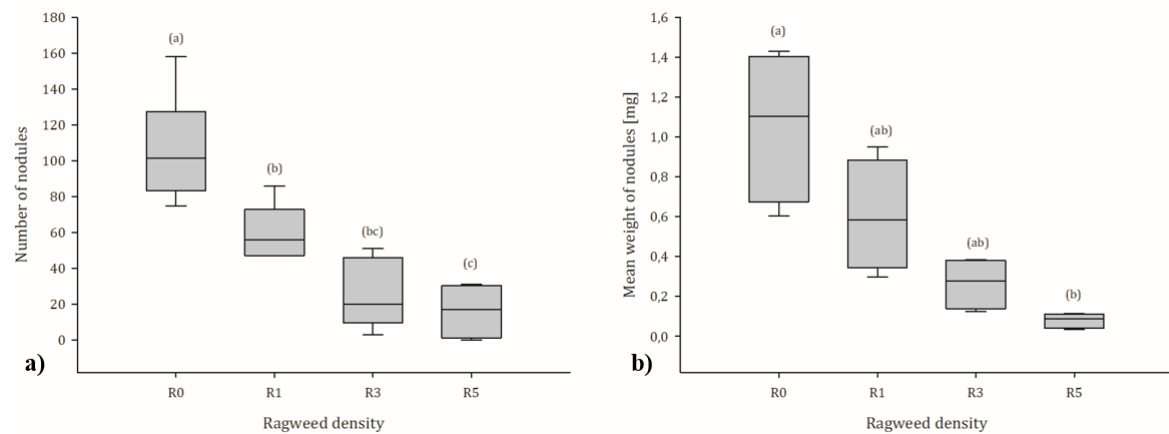
Figure S3: a) number of rhizobial nodules and b) mean weight of rhizobial nodules [mg] on runner bean in dependency of the factor ragweed density (0, 1, 3, and 5 plants: R0, R1, R3, and R5; n = 4; different letters indicate significant differences)