

Supplementary material Table S1. Compositions and seeding rates of the cover crops.

Cauliflower
100% <i>Vigna unguiculata</i>
70% <i>Vigna unguiculata</i> + 30% <i>Pennisetum glaucum</i>
50% <i>Vigna unguiculata</i> + 50% <i>Pennisetum glaucum</i>
40% <i>Vigna unguiculata</i> + 30% <i>Pennisetum glaucum</i> + 30% <i>Raphanus sativus</i>
Seeding rates
<i>Vigna unguiculata</i> 50 kg ha ⁻¹
<i>Pennisetum glaucum</i> 60 kg ha ⁻¹
<i>Raphanus sativus</i> 50 kg ha ⁻¹
Tomato
20% <i>Hordeum vulgare</i> + 80% <i>Vicia sativa</i>
20% <i>Hordeum vulgare</i> + 80% <i>Vicia faba</i> Pers.
Seeding rates
<i>Hordeum vulgare</i> 40 kg ha ⁻¹
<i>Vicia sativa</i> 65 kg ha ⁻¹
<i>Vicia faba</i> 120 kg ha ⁻¹

Supplementary material Table S2. List of ground beetle species sampled by pitfall traps. GM = green manure, RC = roller crimper.

Species	Cauliflower					Tomato				
	2015		2016		Total	2016		2017		Total
	RC	GM	RC	GM		RC	GM	RC	GM	
<i>Acinopus megacephalus</i> (Rossi)						1				1
<i>Agonum</i> sp.			3	1	4					
<i>Amblystomus</i> sp.			1	2	3					
<i>Anchomenus dorsalis</i> (Pontoppidan)	18	16	29	29	92	37	7			44
<i>Philochthus lunulatus</i> (Fourcroy)						1				1
<i>Brachinus crepitans</i> (L.)	144	59	66	91	360	34	3		1	38
<i>Brachinus elegans</i> Chaudoir		1			1					0
<i>Brachinus immaculicornis</i> Dejean	16	10	24	29	79	165	37		3	205
<i>Brachinus italicus</i> Dejean	1	2	9	10	22	2				2
<i>Brachinus psophia</i> Audinet-Serville				3	3	2		1		3
<i>Calathus cinctus</i> Motschulsky	86	62	31	71	250	1				1
<i>Calathus circumseptus</i> Germar	9	2	3	2	16	2				2
<i>Calathus fuscipes</i> (Goeze)	1		3	2	6					
<i>Campalita maderae</i> (Fabricius)	1				1					
<i>Carabus coriaceus</i> L.	11	6	35	24	76					
<i>Carterus fulvipes</i> (Latreille)								2		2
<i>Chlaenius chrysocephalus</i> (Rossi)	2				2					
<i>Chlaenius festivus</i> (Panzer)						4				4
<i>Demetrias atricapillus</i> (L.)						5				5
<i>Dicheirotichus chloroticus</i> (Dejean)	11	21	34	64	130	0				
<i>Dinodes decipiens</i> (Dufour)	1		4	4	9	15	1	6	12	34
<i>Distichus planus</i> (Bonelli)	4	1	5	2	12	11	39	59	52	161
<i>Harpalophonus italicus</i> (Schaum)			1		1					
<i>Harpalus distinguendus</i> (Duftschmid)	24	8	2	5	39					1
<i>Harpalus oblitus</i> Dejean										
<i>Laemostenus acutangulus</i> (Schaufuss)	1				1					
<i>Lebia humeralis</i> Dejean	4	4		1	9	1		3	4	8
<i>Leistus fulvibarbis</i> Dejean	2	2	1		5					
<i>Licinus silphoides</i> (Rossi)			7	3	10					
<i>Microlestes corticalis</i> (Dufour)	3	7			10	2				2
<i>Microlestes fulvibasis</i> (Reitter)								5	3	8
<i>Microlestes</i> cfr. <i>fissuralis</i> (Reitter)						1				1
<i>Nebria brevicollis</i> Motschulsky	2	2		3	7					
<i>Notiophilus geminatus</i> Dejean	4				4					
<i>Paratachys micros</i> (Fischer)		1			1					
<i>Parophonus hispanus</i> (Rambur)							1			1
<i>Pedius inquinatus</i> (Sturm)			4	1	5	2	1	1		4
<i>Poecilus cupreus</i> (Linnaeus)			20	16	36	120	38			158
<i>Poecilus cursorius</i> (Dejean)		1		1	2	24	20		1	45
<i>Poecilus nitidus</i> (Dejean)	9	18	1		28	18	16			34
<i>Poecilus versicolor</i> (Sturm)	12	10			22					
<i>Polyderis algiricus</i> (Lucas)	1				1					
<i>Pseudophonus griseus</i> (Panzer)	24	6	4	1	35					
<i>Pseudophonus rufipes</i> (Degeer)	685	123	124	133	1065	27	8	13	17	65
<i>Pterostichus macer</i> (Marsham)	27	25	90	146	288	3	2			5

Supplementary material Table S2. List of ground beetle species sampled by pitfall traps. GM = green manure, RC = roller crimper. (continued)

Species	Cauliflower					Tomato				
	2015		2016		Total	2016		2017		Total
	RC	GM	RC	GM		RC	GM	RC	GM	
<i>Pterostichus melas</i> (Creutzer)	139	81	137	145	502	7	2	1	1	11
<i>Scybalicus oblongiusculus</i> (Dejean)	48	60	85	130	323	4	6	15	4	29
<i>Siagona europaea</i> Dejean	1	4	4	1	10	1	3	1	1	6
<i>Stenolophus teutonus</i> (Schrank)						1	2			3
<i>Syntomus obscuroguttatus</i> (Duftschmid)						2				2
<i>Trechus quadristriatus</i> (Schrank)	12	1	2	3	18	4	1			5
<i>Zabrus tenebrioides</i> (Goeze)				1	1					
Total	1303	533	729	924	3489	497	187	108	99	891

Supplementary material Table S3. List of rove beetle species sampled by pitfall traps. GM = green manure, RC = roller crimper.

Species	Cauliflower					Tomato				
	2015		2016		Total	2016		2017		Total
	RC	GM	RC	GM		RC	GM	RC	GM	
Aleocharinae	51	78	43	40	212	12	50	5	14	81
<i>Anotylus</i> sp.1	29	112	21	66	228					
<i>Anotylus</i> sp.2	2	6			8			2	1	3
<i>Anotylus</i> sp.3				1	1					
<i>Astenus bimaculatus</i> (Erichson)	2	1	2	1	6	1	2			3
<i>Astenus lyonessius</i> (Joy)	1	3		1	5	2	2			4
<i>Astrapaeus ulmi</i> (Rossi)		1			1	1	2			3
<i>Bisnius sordidus</i> (Gravenhorst)		1			1					
<i>Bisnius</i> sp.1									1	1
<i>Bisnius/Rabigus</i> sp.1?	3	4			7					
<i>Carpelimus corticinus</i> (Gravenhorst)	12	8	6	2	28	3	9			12
<i>Cordalia obscura</i> (Gravenhorst)									1	1
damaged specimens	1		3	5	9					
<i>Domene</i> sp.		1			1					
<i>Gabrius</i> sp.										1
<i>Ischnosoma splendidum</i> (Gravenhorst)			2		2					
<i>Leptacinus intermedius</i> Donisthorpe	2	2		1	5	1	2		1	4
<i>Leptobium gracile</i> (Gravenhorst)	1			2	3		2			2
<i>Lobrathium</i> sp.								1		1
<i>Luzea nigrifulva</i> (Erichson)	2	5		2	9		1			1
<i>Megalinus glabratus</i> (Gravenhorst)		1		1	2	1				1
<i>Mycetoporus</i> sp.			8	4	12	2	2			4
<i>Ocypus nitens</i> (Schrank)	1		9	11	21		1			1
<i>Ocypus olens</i> (O. Muller)	10	75	6	38	129					
<i>Othius volans</i> J. Sahlberg		1			1					
<i>Philonthus cognatus</i> Stephens						2	1			3
<i>Philonthus concinnus</i> (Gravenhorst)		3		2	5	8	5			13
<i>Platystethus nitens</i> (C. Sahlberg)	1	8	1	2	12	3	5			8
<i>Platystethus</i> sp.	0	2			2					
Pselaphinae sp.1							2			2
Pselaphinae sp.2	1				1					
Pselaphinae sp.3	1				1					
<i>Pseudolathra lusitanica</i> (Erichson)						1				1
<i>Quedius levicollis</i> (Brullé)		4			4					
<i>Quedius picipes</i> (Mannerheim)		1	1	1	3					
<i>Quedius simplicifrons</i> Fairmaire	41	186	129	222	578					
<i>Rugilus orbiculatus</i> (Paykull)	1	1		7	9	3	11			14
<i>Scopaeus debilis</i> Hochhuth	4	1			5					
Scydmaenidae								1	1	2
Staphylinidae sp.						2				2
<i>Stenus trivialis</i> Kraatz	5	17	1	3	26	2	6			8
<i>Tachyporus hypnorum</i> (Fabricius)	1				1		12			12
<i>Tachyporus nitidulus</i> (Fabricius)	1	4			5	3	3			6
<i>Tachyporus</i> sp.1				2	2					
<i>Tachyporus</i> sp.2	1				1					

Supplementary material Table S3. List of rove beetle species sampled by pitfall traps. GM = green manure, RC = roller crimper. (continued)

Species	Cauliflower					Tomato				
	2015		2016			2016		2017		
	RC	GM	RC	GM	Total	RC	GM	RC	GM	Total
<i>Tasgius falcifer</i> (Nordmann)	3	6	9	10	28			2	1	3
<i>Tasgius globulifer</i> (Geoffroy)		10			10					
<i>Tasgius pedator</i> (Gravenhorst)	3	1	23	15	42		1			1
<i>Tasgius winkleri</i> (Bernhauer)	8	3	13	21	45					
<i>Xantholinus appenninicola</i> Steel			1	5	6					
Total	188	546	278	465	1477	47	120	11	20	198

Supplementary material Table S4. List of spider families sampled by pitfall traps. GM = green manure, RC = roller crimper.

Family	Cauliflower					Tomato				
	2015		2016		Total	2016		2017		Total
	RC	GM	RC	GM		RC	GM	RC	GM	
Agelenidae						1	1			2
Cheiracanthiidae	1				1			2		2
Cybaeidae		1			1					
Dysderidae	12	9	30	30	81	5	7	5	9	26
Gnaphosidae	79	42	27	27	175	27	46	78	40	191
Linyphiidae	10	17	19	25	71	104	18	45	23	190
Liocranidae	1	2	1		4		5	4	1	10
Lycosidae	193	282	321	250	1046	442	1119	311	659	2531
Mimetidae						1	1			2
Nemesidae			1	4	5			1	1	2
Oecibiidae									1	1
Philodromidae								2	1	3
Pholcidae								1		1
Phrurolithidae		3	1	5	9	1	2	1	1	5
Salticidae	3	5	1	4	13	4	1	4	4	13
Tetragnathidae						1				1
Theridiidae	1			1	2			10	4	14
Thomisidae	17	10			27					
Titanoecidae			5	3	8	5	4	3	3	15
Trachelidae	1	2		1	4				1	1
Zodariidae	1		1		2			5	4	9
Total	319	373	407	350	1449	591	1204	472	752	3019