

**Table S1.** Plant protection interventions in the orange orchards (BS, WV, SG, OR, SV, RO(ORG), RO(IPM)) during the study.

Field	Target pest /weeds	Chemical control - active substances
BS	aphids, whiteflies, scale insects, thrips, lepidoptera, spider mites	chlorpyrifos, acetamiprid, tau-fluvalinate, hexythiazox, abamectin, phosmet, acetamiprid, pyriproxyfen, sulfoxalflor, paraffin oil
	<i>Phoma tracheiphila</i>	copper hydroxide
	various weeds	glyphosate, penoxsulam, florasulam, flazasulfuron
WV	aphids, whiteflies, scale insects, thrips, spider mites	spirodiclofen, spirotetramat, pyriproxyfen, paraffin oil
	<i>Phoma tracheiphila</i>	copper hydroxide
	various weeds	glyphosate
SG	aphids, whiteflies, scale insects, thrips, lepidoptera, medfly, spider mites	deltamethrin, spirotetramat, paraffin oil, pyriproxyfen, abamectin, tau-fluvalinate
	<i>Phoma tracheiphila</i>	copper hydroxide
	various weeds	glyphosate
OR	<i>Phoma tracheiphila</i>	copper hydroxide
	various weeds	glyphosate
SV	<i>Phoma tracheiphila</i>	copper hydroxide
	various weeds	glyphosate
RO(ORG)	aphids, whiteflies, scale insects, lepidoptera, spider mites	<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> , paraffin oil
	<i>Phoma tracheiphila</i>	copper hydroxide
	aphids, whiteflies, scale insects, thrips, spider mites	abamectin, phosmet
RO(IPM)	<i>Phoma tracheiphila</i>	copper hydroxide
	various weeds	glyphosate

BS: bare soil; WV: weed vegetation; SG: sage hedgerow; OR: oregano hedgerow; SV: savory hedgerow; RO(ORG): rosemary hedgerow (organic orchard); RO(IPM): rosemary hedgerow (IPM orchard)

**Table S2.** Natural enemies (taxa) recorded in the field margins (FM) and on orange trees (OT) of the experimental orchards (BS, WV, SG, OR, SV, RO(ORG), RO(IPM)) during the study.

	Other (unidentified immatures)	+	+	+	+	+	+	+	+	+	+	+	+	
Opiliones (harvestmen)		+		+		+		+		+		+		
<b>Insect predators</b>														
Coleoptera	Cantharidae (soldier beetles)	+		+	+	+	+	+	+	+	+	+	+	+
	Carabidae (ground beetles)	+	+			+	+					+		+
	Coccinellidae (ladybirds)	+	+	+	+	+	+	+	+	+	+	+	+	+
	Staphylinidae (rove beetles)		+		+				+		+			
Dermoptera (earwigs)		+		+	+	+	+	+	+	+	+	+	+	+
Diptera	Syrphidae (hoverflies)	+	+	+	+	+		+	+	+	+	+	+	+
Hemiptera	Anthocoridae (pirate bugs)	+		+	+	+	+	+	+	+	+	+	+	+
	Miridae (mirid bugs)	+	+	+	+	+	+	+	+	+	+	+		+
	Reduviidae (assassin bugs)		+		+		+		+		+	+	+	+
Mantodea (mantids)		+	+		+		+	+	+	+	+	+	+	+
Neuroptera	Chrysopidae (lacewings)	+	+	+	+	+	+	+	+	+	+	+	+	+
	Coniopterygidae		+			+		+	+		+		+	+

BS: bare soil; WV: weed vegetation; SG: sage hedgerow; OR: oregano hedgerow; SV: savory hedgerow;  
RO(ORG): rosemary hedgerow (organic orchard); RO(IPM): rosemary hedgerow (IPM orchard)

**Table S3.** Mean number ( $\pm$ SE) of natural enemies (parasitoids, arachnid predators, insect predators) in field margins in four orange orchards (WV, SG, SV, RO(IPM)) at the baseline year 2020 (field margin management using the usual farmers' practice).

Hymenoptera parasitoids		
Field margin	28-29/4	5-6/5
WV	7.7 $\pm$ 3.2 A	7.7 $\pm$ 2.7 B
SG	32.7 $\pm$ 10.2 A	38.0 $\pm$ 8.7 A
SV	12.0 $\pm$ 3.5 A	9.3 $\pm$ 3.5 AB
RO(IPM)	5.7 $\pm$ 2.3 A	9.7 $\pm$ 2.2 AB
<b>2-way ANOVA</b> Field: $F_{3,16} = 8.7735, P = 0.0011$ ; Date: $F_{1,16} = 0.0434, P = 0.8375$ ; Field*Date: $F_{3,16} = 1.2161, P = 0.336$		
Arachnid predators		
WV	8.0 $\pm$ 3.1 A	5.3 $\pm$ 4.3 A
SG	1.0 $\pm$ 0.6 B	1.0 $\pm$ 1.0 A
SV	0.3 $\pm$ 0.3 B	1.0 $\pm$ 0.6 A
RO(IPM)	2.0 $\pm$ 0.6 AB	2.0 $\pm$ 0.0 A
<b>2-way ANOVA</b> Field: $F_{3,16} = 4.15, P = 0.0236$ ; Date: $F_{1,16} = 2.7334, P = 0.1178$ ; Field*Date: $F_{3,16} = 4.6373, P = 0.0162$		
Insect predators		
WV	2.3 $\pm$ 0.7 AB	2.0 $\pm$ 0.6 A
SG	5.0 $\pm$ 0.6 A	7.7 $\pm$ 3.8 A
SV	1.3 $\pm$ 0.3 B	1.3 $\pm$ 0.9 A
RO(IPM)	2.3 $\pm$ 0.7 AB	0.3 $\pm$ 0.3 A
<b>2-way ANOVA</b> Field: $F_{3,16} = 5.487, P = 0.0087$ ; Date: $F_{1,16} = 2.8799, P = 0.1091$ ; Field*Date: $F_{3,16} = 0.9842, P = 0.425$		

WV: weed vegetation; RO(IPM): rosemary hedgerow (IPM orchard); OR: oregano hedgerow; SG: sage hedgerow; SV: savory hedgerow. Capital letters indicate significant differences between orchards.

**Table S4.** Mean number ( $\pm$ SE) of natural enemies (parasitoids, arachnid predators, insect predators) on orange trees in seven orchards (BS, WV, SG, OR, SV, RO(ORG), RO(IPM)) at the baseline year 2020 (field margin management using the usual farmers' practice).

<b>Hymenoptera parasitoids</b>		
<b>Orange trees</b>	<b>18-25/6</b>	<b>20-21/7</b>
BS	4.3 $\pm$ 1.9 Aa	8.5 $\pm$ 3.6 ABCa
WV	2.0 $\pm$ 0.7 Aa	1.5 $\pm$ 0.7 Ca
SG	8.2 $\pm$ 2.0 Aa	6.7 $\pm$ 2.4 ABCa
OR	6.5 $\pm$ 1.4 Ab	18.0 $\pm$ 3.4 Aa
SV	5.7 $\pm$ 1.4 Aa	14.2 $\pm$ 4.6 ABa
RO(ORG)	8.5 $\pm$ 2.2 Aa	4.7 $\pm$ 2.0 BCa
RO(IPM)	5.3 $\pm$ 1.2 Aa	8.3 $\pm$ 1.6 ABa

  

<b>Arachnid predators</b>		
BS	0.0 $\pm$ 0.0 Ba	0.7 $\pm$ 0.5 BCa
WV	0.3 $\pm$ 0.2 Ba	0.7 $\pm$ 0.2 BCa
SG	0.3 $\pm$ 0.2 Ba	0.2 $\pm$ 0.2 Ca
OR	3.2 $\pm$ 0.6 Aa	6.2 $\pm$ 1.6 Aa
SV	0.8 $\pm$ 0.5 Ba	2.0 $\pm$ 0.4 ABa
RO(ORG)	0.8 $\pm$ 0.4 Ba	1.2 $\pm$ 0.4 BCa
RO(IPM)	0.8 $\pm$ 0.5 Ba	1.8 $\pm$ 0.7 ABCa

  

<b>Insect predators</b>		
BS	0.0 $\pm$ 0.0 A	0.3 $\pm$ 0.2 B
WV	0.5 $\pm$ 0.3 A	0.5 $\pm$ 0.2 B
SG	0.7 $\pm$ 0.3 A	0.2 $\pm$ 0.2 B
OR	2.2 $\pm$ 0.9 A	3.2 $\pm$ 0.2 A
SV	1.5 $\pm$ 0.6 A	1.0 $\pm$ 0.4 B
RO(ORG)	2.0 $\pm$ 1.2 A	1.3 $\pm$ 0.6 AB
RO(IPM)	0.7 $\pm$ 0.3 A	0.8 $\pm$ 0.5 B

**2-way ANOVA Field:**  $F_{6,70} = 3.8497, P = 0.0022$ ; **Date:**  $F_{1,70} = 5.8961, P = 0.0177$ ; **Field\*Date:**  $F_{6,70} = 2.7665, P = 0.018$

**2-way ANOVA Field:**  $F_{6,70} = 13.4819, P < 0.0001$ ; **Date:**  $F_{1,70} = 9.5304, P = 0.0029$ ; **Field\*Date:**  $F_{6,70} = 0.8211, P = 0.5574$

**2-way ANOVA Field:**  $F_{6,70} = 5.7513, P < 0.0001$ ; **Date:**  $F_{1,70} = 0.0823, P = 0.775$ ; **Field\*Date:**  $F_{6,70} = 0.7871, P = 0.583$

BS: bare soil; WV: weed vegetation; SG: sage hedgerow; OR: oregano hedgerow; SV: savory hedgerow.  
RO(ORG): rosemary hedgerow (organic orchard); RO(IPM): rosemary hedgerow (IPM orchard). Capital letters indicate significant differences between orchards while small letters indicate significant differences between assessment dates.

**Table S5.** Mean number ( $\pm$ SE) of natural enemies (parasitoids, arachnid predators, insect predators) in field margins in orange orchards with different field margin management during April-June 2021.

Field margin	Hymenoptera parasitoids					
	28/4	5-7/5	12-13/5	21/5	27/5	7/6
WV	2.3 $\pm$ 1.2 ABa	7.0 $\pm$ 3.5 ABa	3.7 $\pm$ 0.9 ABa	5.3 $\pm$ 2.3 ABa	4.3 $\pm$ 0.9 BCa	4.7 $\pm$ 2.3 BCa
SG	1.0 $\pm$ 0.6 Bc	2.7 $\pm$ 1.2 ABbc	8.0 $\pm$ 1.5 ABab	6.7 $\pm$ 0.3 Aab	6.7 $\pm$ 0.9 ABCab	16.7 $\pm$ 2.3 ABA
OR	3.0 $\pm$ 1.2 ABab	0.7 $\pm$ 0.7 Bb	2.0 $\pm$ 1.2 ABab	3.0 $\pm$ 1.0 ABab	14.0 $\pm$ 8.0 ABCa	5.7 $\pm$ 1.3 ABCab
SV	11.0 $\pm$ 3.8 Aab	12.3 $\pm$ 3.7 Aa	12.0 $\pm$ 3.5 Aa	1.3 $\pm$ 0.9 Bb	20.3 $\pm$ 5.8 Aa	37.7 $\pm$ 19.7 Aa
RO(ORG)	0.3 $\pm$ 0.3 Bb	21.3 $\pm$ 9.6 Aa	1.3 $\pm$ 0.9 ABb	2.7 $\pm$ 0.3 ABab	14.7 $\pm$ 1.9 ABa	5.3 $\pm$ 2.0 BCab
RO(IPM)	1.7 $\pm$ 0.3 ABa	0.3 $\pm$ 0.3Ba	1.7 $\pm$ 1.7 Ba	3.0 $\pm$ 1.2 ABa	2.7 $\pm$ 0.7 Ca	1.3 $\pm$ 0.3 Ca
<b>2-way ANOVA</b> Field: $F_{5,72} = 13.8154$ , $P < 0.0001$ ; Date: $F_{5,72} = 9.6705$ , $P < 0.0001$ ; Field*Date: $F_{25,72} = 4.0936$ , $P < 0.0001$						
Arachnid predators						
WV	3.0 $\pm$ 0.6 A	2.0 $\pm$ 1.0 A	11.0 $\pm$ 2.9 A	5.3 $\pm$ 2.7 A	3.7 $\pm$ 2.2 A	6.0 $\pm$ 1.7 A
SG	0.0 $\pm$ 0.0 C	0.3 $\pm$ 0.3 A	0.0 $\pm$ 0.0 C	0.3 $\pm$ 0.3 A	1.0 $\pm$ 0.6 A	0.3 $\pm$ 0.3 B
OR	0.3 $\pm$ 0.3 BC	0.3 $\pm$ 0.3 A	1.0 $\pm$ 0.6 BC	0.7 $\pm$ 0.3 A	0.7 $\pm$ 0.3 A	0.7 $\pm$ 0.3 B
SV	3.3 $\pm$ 1.3 A	3.0 $\pm$ 0.6 A	3.0 $\pm$ 0.6 AB	2.0 $\pm$ 1.0 A	2.0 $\pm$ 1.0 A	6.7 $\pm$ 3.3 A
RO(ORG)	4.7 $\pm$ 0.3 A	3.3 $\pm$ 0.9 A	1.7 $\pm$ 0.9 BC	0.3 $\pm$ 0.3 A	1.7 $\pm$ 0.9 A	1.3 $\pm$ 0.3 AB
RO(IPM)	2.0 $\pm$ 0.6 AB	1.3 $\pm$ 0.9 A	0.0 $\pm$ 0.0 C	1.0 $\pm$ 0.0 A	1.7 $\pm$ 0.7 A	1.0 $\pm$ 0.6 AB
<b>2-way ANOVA</b> Field: $F_{5,72} = 19.4261$ , $P < 0.0001$ ; Date: $F_{5,72} = 0.811$ , $P = 0.5457$ ; Field*Date: $F_{25,72} = 1.8213$ , $P = 0.0257$						
Insect predators						
WV	1.3 $\pm$ 0.9 Aa	0.7 $\pm$ 0.7 Aa	2.0 $\pm$ 0.6 ABa	6.0 $\pm$ 1.7 Aa	2.0 $\pm$ 1.5 Aa	2.3 $\pm$ 0.9 ABa
SG	1.0 $\pm$ 0.6 Abc	0.3 $\pm$ 0.3 Ac	4.7 $\pm$ 0.3 Aab	7.0 $\pm$ 1.7 Aa	4.0 $\pm$ 1.7 Aabc	2.7 $\pm$ 0.7 ABabc
OR	1.3 $\pm$ 0.9 Aa	2.7 $\pm$ 0.3 Aa	1.3 $\pm$ 0.7 ABCa	5.7 $\pm$ 1.9 Aa	8.7 $\pm$ 3.2 Aa	6.0 $\pm$ 1.7 Aa
SV	1.0 $\pm$ 0.6 Aa	1.7 $\pm$ 0.9 Aa	0.3 $\pm$ 0.3 BCa	1.3 $\pm$ 0.9 Aa	3.3 $\pm$ 1.7 Aa	5.0 $\pm$ 2.1 ABa
RO(ORG)	0.0 $\pm$ 0.0 Aa	0.7 $\pm$ 0.3 Aa	0.7 $\pm$ 0.3 BCa	1.7 $\pm$ 1.2 Aa	1.7 $\pm$ 1.7 Aa	1.7 $\pm$ 0.3 ABa
RO(IPM)	0.0 $\pm$ 0.0 Aa	0.3 $\pm$ 0.3 Aa	0.0 $\pm$ 0.0 Ca	0.7 $\pm$ 0.3 Aa	0.3 $\pm$ 0.3 Aa	1.0 $\pm$ 0.6 Ba
<b>2-way ANOVA</b> Field: $F_{5,72} = 10.6998$ , $P < 0.0001$ ; Date: $F_{5,72} = 7.6176$ , $P < 0.0001$ ; Field*Date: $F_{25,72} = 1.4124$ , $P = 0.13$						

WV: weed vegetation; RO(ORG): rosemary hedgerow (organic orchard); RO(IPM): rosemary hedgerow (IPM orchard); OR: oregano hedgerow; SG: sage hedgerow; SV: savory hedgerow. Capital letters indicate significant differences between orchards while small letters indicate significant differences between assessment dates.

**Table S6.** Mean number ( $\pm$ SE) of natural enemies (parasitoids, arachnid predators, insect predators) on orange trees in orchards with different field margin management during April-June 2021.

Orange trees	Hymenoptera parasitoids					
	28/4	5-7/5	12-13/5	21/5	27/5	7/6
BS	3.8 $\pm$ 1.0 ABa	0.7 $\pm$ 0.3 Ba	4.5 $\pm$ 1.5 ABa	1.0 $\pm$ 0.5 Da	0.7 $\pm$ 0.3 Ca	2.5 $\pm$ 1.7 BCa
WV	3.7 $\pm$ 1.0 ABa	1.0 $\pm$ 0.4 Ba	4.0 $\pm$ 1.1 ABa	1.7 $\pm$ 0.7 Da	4.0 $\pm$ 1.0 ABa	2.7 $\pm$ 1.1 ABCa
SG	1.3 $\pm$ 0.6 Ba	0.8 $\pm$ 0.3 Ba	2.2 $\pm$ 0.3 ABa	2.7 $\pm$ 0.3 BCDa	2.2 $\pm$ 0.7 BCa	1.0 $\pm$ 0.4 Ca
OR	1.7 $\pm$ 0.7 Bbc	1.5 $\pm$ 0.5 Bbc	0.7 $\pm$ 0.3 Bc	6.2 $\pm$ 1.3 ABCa	2.7 $\pm$ 0.6 BCab	0.8 $\pm$ 0.2 Cbc
SV	2.0 $\pm$ 0.5 Ba	3.0 $\pm$ 1.5 Ba	2.7 $\pm$ 0.9 ABa	2.5 $\pm$ 1.0 CDa	3.3 $\pm$ 0.7 Ba	6.3 $\pm$ 1.6 ABa
RO(ORG)	7.2 $\pm$ 1.2 Aa	13.5 $\pm$ 1.8 Aa	6.3 $\pm$ 0.9 Aa	10.5 $\pm$ 1.9 Aa	10.5 $\pm$ 1.7 Aa	9.8 $\pm$ 2.4 Aa
RO(IPM)	2.2 $\pm$ 0.6 ABb	1.7 $\pm$ 0.7 Bb	1.5 $\pm$ 0.6 Bb	8.3 $\pm$ 1.7 ABa	4.2 $\pm$ 1.5 Bab	1.3 $\pm$ 0.6 BCb
<b>2-way ANOVA</b> Field: $F_{6,210} = 26.2251$ , $P < 0.0001$ ; Date: $F_{5,210} = 3.4245$ , $P = 0.0054$ ; Field*Date: $F_{30,210} = 3.2675$ , $P < 0.0001$						
Arachnid predators						
BS	0.2 $\pm$ 0.2 A	0.0 $\pm$ 0.0 A	0.3 $\pm$ 0.2 A	0.0 $\pm$ 0.0 A	0.2 $\pm$ 0.2 A	0.2 $\pm$ 0.2 AB
WV	0.5 $\pm$ 0.2 A	0.2 $\pm$ 0.2 A	0.7 $\pm$ 0.7 A	0.2 $\pm$ 0.2 A	1.0 $\pm$ 0.4 A	0.2 $\pm$ 0.2 AB
SG	0.0 $\pm$ 0.0 A	0.2 $\pm$ 0.2 A	0.5 $\pm$ 0.3 A	0.0 $\pm$ 0.0 A	0.0 $\pm$ 0.0 A	0.0 $\pm$ 0.0 AB
OR	0.3 $\pm$ 0.2 A	0.0 $\pm$ 0.0 A	0.2 $\pm$ 0.2 A	0.0 $\pm$ 0.0 A	0.2 $\pm$ 0.2 A	0.8 $\pm$ 0.4 AB
SV	0.3 $\pm$ 0.2 A	0.2 $\pm$ 0.2 A	0.3 $\pm$ 0.2 A	0.5 $\pm$ 0.3 A	0.2 $\pm$ 0.2 A	4.3 $\pm$ 3.5 A
RO(ORG)	1.0 $\pm$ 0.5 A	0.5 $\pm$ 0.2 A	0.2 $\pm$ 0.2 A	0.7 $\pm$ 0.5 A	0.8 $\pm$ 0.5 A	0.2 $\pm$ 0.2 AB
RO(IPM)	0.2 $\pm$ 0.2 A	0.2 $\pm$ 0.2 A	0.3 $\pm$ 0.2 A	0.5 $\pm$ 0.2 A	0.7 $\pm$ 0.3 A	0.0 $\pm$ 0.0 B
<b>2-way ANOVA</b> Field: $F_{6,210} = 2.3676$ , $P < 0.0001$ ; Date: $F_{5,210} = 0.8307$ , $P = 0.5291$ ; Field*Date: $F_{30,210} = 1.4285$ , $P = 0.0785$						
Insect predators						
BS	0.2 $\pm$ 0.2 B	0.5 $\pm$ 0.2 BC	0.8 $\pm$ 0.5 B	0.3 $\pm$ 0.2 B	0.7 $\pm$ 0.3 B	1.7 $\pm$ 0.9 AB
WV	0.0 $\pm$ 0.0 B	0.5 $\pm$ 0.5 C	0.2 $\pm$ 0.2 B	0.3 $\pm$ 0.2 B	1.3 $\pm$ 0.8 B	0.3 $\pm$ 0.2 B
SG	0.3 $\pm$ 0.3 B	0.2 $\pm$ 0.2 C	0.8 $\pm$ 0.5 B	0.7 $\pm$ 0.2 AB	0.2 $\pm$ 0.2 B	0.5 $\pm$ 0.3 B
OR	0.8 $\pm$ 0.3 B	0.8 $\pm$ 0.4 BC	0.5 $\pm$ 0.2 B	2.7 $\pm$ 1.7 AB	1.8 $\pm$ 0.8 AB	1.0 $\pm$ 0.5 AB
SV	1.0 $\pm$ 0.4 AB	2.5 $\pm$ 0.6 AB	2.7 $\pm$ 1.4 AB	1.5 $\pm$ 0.5 AB	1.8 $\pm$ 0.5 AB	3.7 $\pm$ 1.0 A
RO(ORG)	4.5 $\pm$ 1.4 A	4.3 $\pm$ 0.8 A	5.5 $\pm$ 1.8 A	3.7 $\pm$ 1.2 AB	4.7 $\pm$ 1.0 A	3.7 $\pm$ 0.8 A
RO(IPM)	1.0 $\pm$ 0.3 AB	0.7 $\pm$ 0.2 BC	1.0 $\pm$ 0.3 B	4.5 $\pm$ 1.5 A	4.8 $\pm$ 1.0 A	3.7 $\pm$ 0.8 A
<b>2-way ANOVA</b> Field: $F_{6,210} = 29.5878$ , $P = 0.0311$ ; Date: $F_{5,210} = 3.4502$ , $P = 0.0051$ ; Field*Date: $F_{30,210} = 1.3416$ , $P = 0.121$						

BS: bare soil; WV: weed vegetation; SG: sage hedgerow; OR: oregano hedgerow; SV: savory hedgerow; RO(ORG): rosemary hedgerow (organic orchard); RO(IPM): rosemary hedgerow (IPM orchard). Capital letters indicate significant differences between orchards while small letters indicate significant differences between assessment dates.

**Table S7.** Mean number ( $\pm$ SE) of natural enemies (parasitoids, arachnid predators, insect predators) in field margins in orange orchards with different field margin management during April-June 2022.

Field margin	Hymenoptera parasitoids						
	26-27/4	5/5	12-13/5	21/5	27/5	7/6	23-24/6
WV	4.3 $\pm$ 2.4 ABC	4.3 $\pm$ 2.4 A	4.0 $\pm$ 1.0 A	2.7 $\pm$ 0.9 BC	3.3 $\pm$ 1.8 BC	1.7 $\pm$ 0.9 B	3.7 $\pm$ 1.2 BC
SG	10.0 $\pm$ 2.9 A	8.0 $\pm$ 2.9 A	7.3 $\pm$ 2.6 A	1.3 $\pm$ 0.7 C	1.3 $\pm$ 0.9 BC	6.0 $\pm$ 2.5 AB	5.3 $\pm$ 1.2 B
OR	1.0 $\pm$ 0.6 BC	0.3 $\pm$ 0.3 A	1.7 $\pm$ 0.7 A	5.7 $\pm$ 2.7 BC	5.3 $\pm$ 1.3 ABC	32.7 $\pm$ 12.4 A	4.0 $\pm$ 1.5 BC
SV	6.3 $\pm$ 2.4 AB	8.7 $\pm$ 2.4 A	11.7 $\pm$ 2.6 A	10.3 $\pm$ 1.2 AB	15.7 $\pm$ 5.6 AB	21.7 $\pm$ 11.7 AB	34.3 $\pm$ 7.5 A
RO(ORG)	3.0 $\pm$ 0.6 ABC	3.3 $\pm$ 1.2 A	2.7 $\pm$ 1.8 A	3.7 $\pm$ 1.3 BC	41.0 $\pm$ 20.4 A	5.0 $\pm$ 1.7 AB	5.3 $\pm$ 0.3 B
RO(IPM)	0.3 $\pm$ 0.3 C	2.3 $\pm$ 2.3 A	8.7 $\pm$ 7.2 A	34.7 $\pm$ 9.4 A	0.0 $\pm$ 0.0 C	3.0 $\pm$ 2.5 B	1.0 $\pm$ 1.0 C
<b>2-way ANOVA</b> Field: $F_{5,84} = 12.2624$ , $P < 0.0001$ ; Date: $F_{6,84} = 2.1135$ , $P = 0.0601$ ; Field*Date: $F_{30,84} = 4.4539$ , $P < 0.0001$							
Arachnid predators							
WV	0.3 $\pm$ 0.3 Ba	4.3 $\pm$ 1.2 Aa	2.7 $\pm$ 2.2 Aa	2.0 $\pm$ 1.2 ABa	1.7 $\pm$ 0.7 Aa	4.3 $\pm$ 1.7 ABa	5.3 $\pm$ 1.2 BCa
SG	0.3 $\pm$ 0.3 Ba	2.3 $\pm$ 0.9 ABa	2.0 $\pm$ 1.0 Aa	0.0 $\pm$ 0.0 Ba	0.3 $\pm$ 0.3 Aa	1.3 $\pm$ 0.7 Ba	1.7 $\pm$ 1.2 Ca
OR	1.7 $\pm$ 0.3 ABbc	0.0 $\pm$ 0.0 Bc	2.3 $\pm$ 0.3 Abc	1.7 $\pm$ 0.9 ABbc	0.7 $\pm$ 0.7 Ac	7.3 $\pm$ 2.2 ABab	17.7 $\pm$ 2.7 ABA
SV	2.3 $\pm$ 0.7 ABabc	0.0 $\pm$ 0.0 Bc	4.0 $\pm$ 2.1 Aabc	1.0 $\pm$ 1.0 ABbc	11.3 $\pm$ 7.5 Aab	10.3 $\pm$ 0.3 Aa	17.3 $\pm$ 4.3 ABA
RO(ORG)	2.7 $\pm$ 1.5 ABb	2.0 $\pm$ 1.0 ABb	0.3 $\pm$ 0.3 Ab	2.3 $\pm$ 0.3 ABb	1.3 $\pm$ 0.9 Ab	3.3 $\pm$ 0.7 ABab	16.3 $\pm$ 4.1 ABA
RO(IPM)	7.7 $\pm$ 3.7 Ab	7.7 $\pm$ 3.7 Ab	4.0 $\pm$ 0.6 Ab	5.7 $\pm$ 0.9 Ab	4.0 $\pm$ 1.5 Ab	11.0 $\pm$ 1.0 Aab	28.7 $\pm$ 6.3 Aa
<b>2-way ANOVA</b> Field: $F_{5,84} = 16.7319$ , $P < 0.0001$ ; Date: $F_{6,84} = 19.4021$ , $P < 0.0001$ ; Field*Date: $F_{30,84} = 2.8298$ , $P = 0.0001$							
Insect predators							
WV	2.3 $\pm$ 2.3 Ba	4.3 $\pm$ 1.2 BCa	6.3 $\pm$ 1.5 Aa	1.7 $\pm$ 0.7 Aa	3.7 $\pm$ 1.3 Ba	4.7 $\pm$ 2.3 ABa	5.7 $\pm$ 3.7 Aa
SG	5.0 $\pm$ 0.6 ABa	10.0 $\pm$ 2.5 ABa	6.0 $\pm$ 2.0 ABa	6.3 $\pm$ 3.2 Aa	11.7 $\pm$ 1.2 Aa	11.0 $\pm$ 2.6 Aa	4.0 $\pm$ 0.6 Aa
OR	31.0 $\pm$ 13.5 Aa	18.0 $\pm$ 4.0 Aa	1.3 $\pm$ 0.9 BCb	3.3 $\pm$ 1.3 Aab	2.7 $\pm$ 0.3 Bab	5.7 $\pm$ 0.7 ABab	1.0 $\pm$ 0.6 Ab
SV	1.0 $\pm$ 0.0 Babc	0.7 $\pm$ 0.7 CDbc	0.0 $\pm$ 0.0 Cc	1.7 $\pm$ 0.9 Aabc	3.3 $\pm$ 0.9 Babc	5.7 $\pm$ 1.9 ABab	8.3 $\pm$ 4.8 Aa
RO(ORG)	2.3 $\pm$ 0.3 ABa	0.3 $\pm$ 0.3 Da	0.7 $\pm$ 0.7 Ca	2.0 $\pm$ 1.5 Aa	1.0 $\pm$ 0.6 BCa	2.0 $\pm$ 1.0 ABa	0.3 $\pm$ 0.3 Aa
RO(IPM)	0.0 $\pm$ 0.0 Ba	0.3 $\pm$ 0.3 Da	0.0 $\pm$ 0.0 Ca	0.3 $\pm$ 0.3 Aa	0.0 $\pm$ 0.0 Ca	1.3 $\pm$ 0.9 Ba	1.7 $\pm$ 1.2 Aa
<b>2-way ANOVA</b> Field: $F_{5,84} = 27.4573$ , $P < 0.0001$ ; Date: $F_{6,84} = 2.9589$ , $P = 0.0114$ ; Field*Date: $F_{30,84} = 3.192$ , $P < 0.0001$							

WV: weed vegetation; RO(ORG): rosemary hedgerow (organic orchard); RO(IPM): rosemary hedgerow (IPM orchard); OR: oregano hedgerow; SG: sage hedgerow; SV: savory hedgerow. Capital letters indicate significant differences between orchards while small letters indicate significant differences between assessment dates.

**Table S8.** Mean number ( $\pm$ SE) of natural enemies (parasitoids, arachnid predators, insect predators) on orange trees in orchards with different field margin management during April-June 2022.

Orange trees	Hymenoptera parasitoids						
	26-27/4	5/5	12-13/5	21/5	27/5	7/6	23-24/6
BS	0.5 $\pm$ 0.2 Ac	0.5 $\pm$ 0.3 Bc	1.2 $\pm$ 0.5 Bbc	5.7 $\pm$ 2.9 Aab	2.2 $\pm$ 0.8 BCbc	3.0 $\pm$ 0.8 ABabc	7.7 $\pm$ 1.3 Aa
WV	0.3 $\pm$ 0.3 Ac	1.3 $\pm$ 0.3 ABbc	3.0 $\pm$ 0.7 ABab	3.0 $\pm$ 0.7 Aab	1.8 $\pm$ 0.7 BCbc	1.5 $\pm$ 0.4 ABbc	5.3 $\pm$ 1.1 ABa
SG	0.8 $\pm$ 0.3 Aab	1.3 $\pm$ 0.4 ABab	1.2 $\pm$ 0.5 Bab	2.0 $\pm$ 0.6 Aab	0.5 $\pm$ 0.3 Cb	1.7 $\pm$ 0.8 ABab	3.3 $\pm$ 0.6 ABa
OR	0.8 $\pm$ 0.5 Ab	1.3 $\pm$ 0.8 ABb	1.0 $\pm$ 0.4 Bb	1.5 $\pm$ 0.5 Aab	0.8 $\pm$ 0.4 BCb	0.3 $\pm$ 0.2 Bb	6.3 $\pm$ 1.5 ABa
SV	1.7 $\pm$ 0.3 Aa	2.7 $\pm$ 1.3ABA	1.0 $\pm$ 0.3 Ba	2.5 $\pm$ 0.6 Aa	3.3 $\pm$ 0.8 ABA	2.2 $\pm$ 0.9 ABa	3.0 $\pm$ 0.5 ABa
RO(ORG)	1.0 $\pm$ 0.5 Ab	6.7 $\pm$ 2.4 Aa	6.7 $\pm$ 1.6 Aa	4.7 $\pm$ 1.1 Aa	8.5 $\pm$ 1.5 Aa	4.8 $\pm$ 1.1 Aa	4.0 $\pm$ 0.5 ABa
RO(IPM)	0.8 $\pm$ 0.5 Aa	1.5 $\pm$ 0.5 ABa	2.0 $\pm$ 1.2 Ba	2.8 $\pm$ 1.3 Aa	1.7 $\pm$ 0.6 BCa	4.0 $\pm$ 1.6 Aa	2.8 $\pm$ 0.7 Ba
<b>2-way ANOVA</b> Field: $F_{6,245} = 10.7726$ , $P < 0.0001$ ; Date: $F_{6,245} = 14.9549$ , $P < 0.0001$ ; Field*Date: $F_{36,245} = 2.0869$ , $P = 0.0006$							
Arachnid predators							
BS	0.5 $\pm$ 0.2 Aa	0.0 $\pm$ 0.0 Ca	0.7 $\pm$ 0.2 Aa	0.0 $\pm$ 0.0 Aa	0.3 $\pm$ 0.2 Aa	0.7 $\pm$ 0.3 Aa	0.3 $\pm$ 0.2 Aa
WV	0.2 $\pm$ 0.2 Aab	1.0 $\pm$ 0.3 ABa	0.0 $\pm$ 0.0 Ab	0.0 $\pm$ 0.0 Ab	0.2 $\pm$ 0.2 Aab	0.3 $\pm$ 0.2 Aab	0.5 $\pm$ 0.3 Aab
SG	0.0 $\pm$ 0.0 Aa	0.3 $\pm$ 0.2 ABCa	0.0 $\pm$ 0.0 Aa	0.0 $\pm$ 0.0 Aa	0.2 $\pm$ 0.2 Aa	0.0 $\pm$ 0.0 Aa	0.5 $\pm$ 0.2 Aa
OR	0.3 $\pm$ 0.2 Aa	0.3 $\pm$ 0.2 ABCa	0.0 $\pm$ 0.0 Aa	0.0 $\pm$ 0.0 Aa	0.3 $\pm$ 0.2 Aa	1.0 $\pm$ 0.4 Aa	0.5 $\pm$ 0.3 Aa
SV	0.7 $\pm$ 0.3 Aa	1.2 $\pm$ 0.4 Aa	0.2 $\pm$ 0.2 Aa	0.2 $\pm$ 0.2 Aa	1.3 $\pm$ 0.6 Aa	0.3 $\pm$ 0.2 Aa	0.7 $\pm$ 0.3 Aa
RO(ORG)	0.3 $\pm$ 0.2 Aab	0.2 $\pm$ 0.2 BCb	0.3 $\pm$ 0.2 Aab	0.2 $\pm$ 0.2 Ab	0.5 $\pm$ 0.2 Aab	0.5 $\pm$ 0.3 Aab	1.7 $\pm$ 0.5 Aa
RO(IPM)	0.5 $\pm$ 0.3 Aa	0.0 $\pm$ 0.0 Ca	0.3 $\pm$ 0.2 Aa	0.3 $\pm$ 0.2 Aa	0.3 $\pm$ 0.2 Aa	0.7 $\pm$ 0.4 Aa	1.3 $\pm$ 0.6 Aa
<b>2-way ANOVA</b> Field: $F_{6,245} = 2.5293$ , $P = 0.0215$ ; Date: $F_{6,245} = 4.661$ , $P = 0.0002$ ; Field*Date: $F_{36,245} = 1.5589$ , $P = 0.0278$							
Insect predators							
BS	0.5 $\pm$ 0.2 Aa	0.5 $\pm$ 0.3 ABa	1.0 $\pm$ 0.4 Aa	0.3 $\pm$ 0.3 Aa	0.5 $\pm$ 0.3 Aa	0.3 $\pm$ 0.2 Ba	0.3 $\pm$ 0.3 Aa
WV	0.0 $\pm$ 0.0 Aa	0.7 $\pm$ 0.3 ABa	0.7 $\pm$ 0.2 Aa	0.8 $\pm$ 0.4 Aa	0.8 $\pm$ 0.3 Aa	0.5 $\pm$ 0.2 ABa	0.0 $\pm$ 0.0 Aa
SG	0.3 $\pm$ 0.2 Aa	1.8 $\pm$ 0.5 ABa	0.8 $\pm$ 0.5 Aa	0.8 $\pm$ 0.5 Aa	0.7 $\pm$ 0.3 Aa	0.5 $\pm$ 0.2 ABa	0.7 $\pm$ 0.2 Aa
OR	0.8 $\pm$ 0.5 Aa	0.3 $\pm$ 0.2 Ba	0.7 $\pm$ 0.3 Aa	1.5 $\pm$ 0.8 Aa	0.7 $\pm$ 0.5 Aa	1.2 $\pm$ 0.3 ABa	0.2 $\pm$ 0.2 Aa
SV	0.3 $\pm$ 0.2 Aa	2.0 $\pm$ 0.4 Aa	1.7 $\pm$ 1.0 Aa	1.2 $\pm$ 0.6 Aa	1.7 $\pm$ 0.8 Aa	0.7 $\pm$ 0.3 ABa	0.3 $\pm$ 0.3 Aa
RO(ORG)	0.2 $\pm$ 0.2 Ab	0.5 $\pm$ 0.2 ABab	1.3 $\pm$ 0.5 Aab	1.7 $\pm$ 0.3 Aab	1.2 $\pm$ 0.3 Aab	2.5 $\pm$ 0.7 Aa	1.0 $\pm$ 0.6 Aab
RO(IPM)	0.2 $\pm$ 0.2 Abc	0.8 $\pm$ 0.4 ABabc	0.0 $\pm$ 0.0 Ac	1.8 $\pm$ 0.4 Aa	1.0 $\pm$ 0.4 ABabc	1.5 $\pm$ 0.3 ABab	1.8 $\pm$ 0.8 Aab
<b>2-way ANOVA</b> Field: $F_{6,245} = 2.9801$ , $P = 0.0079$ ; Date: $F_{6,245} = 4.0933$ , $P = 0.0006$ ; Field*Date: $F_{36,245} = 1.7041$ , $P = 0.0104$							

BS: bare soil; WV: weed vegetation; RO(ORG): rosemary hedgerow (organic orchard); RO(IPM): rosemary hedgerow (IPM orchard); OR: oregano hedgerow; SG: sage hedgerow; SV: savory hedgerow. Capital letters indicate significant differences between orchards while small letters indicate significant differences between assessment dates.