

**Table S1.** Soil macrofauna morphospecies and functional groups in two agroecological market-gardening cropping systems on vertisol (Godet, Petit-Canal).

Order/Suborder	Family/Subfamily	Morphospecies	Functional group
Spirobolida	Trigonuulidae	<i>Trigoniulus corallinus</i>	Litter transformer
Hymenoptera	Formicidae	<i>Technomyrmex difficilis</i>	Ecosystem engineer
		<i>Ectatomma ruidum</i>	Predator/ Ecosystem engineer
		<i>Cyphomyrmex minutus</i>	Ecosystem engineer
		<i>Solenopsis invicta</i> Buren	Predator/ Ecosystem engineer
		<i>Solenopsis geminata</i>	Predator/ Ecosystem engineer
		<i>Camponotus sexguttatus</i>	Predator/ Ecosystem engineer
		<i>Cardiocondyla ermeryi</i>	Predator/ Ecosystem engineer
Crassiclitellata	Megascolecidae	<i>Polypheretima elongata</i>	Ecosystem engineer
	Glossoscolecidae	<i>Pontoscolex corethrurus</i>	Ecosystem engineer
Coleoptera	Staphylinidae	<i>Cafius</i> sp.	Predator
	Nitidulidae	<i>Colopterus</i> sp.	Predator
	Trechinae	<i>Tachys</i> sp.	Litter transformer
Isopoda	Platyarthridae	Platyarthridae sp.	Litter transformer
	Philosciidae	Philosciidae sp.	Litter transformer
Dermaptera	Carcinophoridae	<i>Euborellia annulipes</i>	Predator/Litter transformer
Araneae	Tetragnathidae	Tetragnathidae sp.	Predator
	Theridiidae	Theridiidae sp.	Predator
	Thomisidae	Thomisidae sp.	Predator
	Araneidae	Araneidae sp.	Predator
	Araneidae	Alpaida sp.	Predator
Stylommatophora	Bulimulidae	Bulimulidae sp.	Litter transformer
Turbellaria	-	Turbellaria sp.	Litter transformer
Hemiptera	Aphididae	Aphididae sp.	Litter transformer
Hymenoptera	Vespidae	<i>Polistes tricolor</i>	Litter transformer
Geophilomorpha	Geophilidae	Geophilidae sp.	Predator

**Table S2.** Aerial diversity observed on plants in two agroecological market-gardening cropping systems on vertisol (Godet, Petit-Canal).

	<b>Family/Subfamily</b>	<b>Morphospecies</b>	<b>AG</b>	<b>AGSPP</b>
<b>Crop pests</b>	Pseudococcoidae	Peusodococcoidea sp.	Presence	Presence
	Noctuidae	<i>Helicoverpa zea</i>	Presence	Absence
	Noctuidae	<i>Agrotis</i> sp.	Presence	Absence
	Thripidae	<i>Thrips tabaci</i>	Presence	Presence
	Aleyrodidae	<i>Bemisia tabaci</i>	Presence	Presence
	Pentatomidae	<i>Nezara</i> sp.	Presence	Presence
	Coreidae	Coreidae sp.	Presence	Presence
	Aphrophoridae	<i>Aphrophora</i> sp.1	Presence	Presence
	Aphrophoridae	<i>Aphrophora</i> sp.2	Presence	Presence
<b>Crop beneficials</b>	Coccinellidae	Coccinellidae sp.1	Presence	Presence
	Coccinellidae	Coccinellidae sp.2	Presence	Presence
	Apoidea	Apoidae sp.1	Presence	Presence
	Apoidea	Apoidae sp.2	Presence	Presence
	Vespidae	Vespidae sp.1	Absence	Presence
	Vespidae	Vespidae sp.2	Absence	Presence
	Nymphalidae	<i>Danaus plexippus</i>	Absence	Presence
	Theridiidae	Theridiidae sp.	Absence	Presence
	Thomisidae	Thomisidae sp.	Presence	Presence
	Araneidae	<i>Alpaida</i> sp.	Absence	Presence
	Scolopendridae	Scolopendridae sp.	Absence	Presence