

# Changes in the endophytic bacterial community of *Brassica rapa* after application of systemic insecticides

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## Supplementary data:

2nd week	4th week		
N1R1 N1R2 N1R3	N1R1 N1R2 N1R3	N1= Single dose of imidocloprid	Experiment - 1
N2R1 N2R2 N2R3	N2R1 N2R2 N2R3	N2= Single dose of acetamiprid	
N3R1 N3R2 N3R3	N3R1 N3R2 N3R3	N3= Single dose of acephate	
N4R1 N4R2 N4R3	N4R1 N4R2 N4R3	N4= Single dose of dinotefuran	
C1R1 C1R2 C1R3	C1R1 C1R2 C1R3	C= No insecticide	
2nd week	4th week		
T1R1 T1R2 T1R3	T1R1 T1R2 T1R3	T1= Single dose of dinotefuran	Experiment - 2
T2R1 T2R2 T2R3	T2R1 T2R2 T2R3	T2= Double doses of dinotefuran	
T3R1 T3R2 T3R3	T3R1 T3R2 T3R3	T3= Triple doses of dinotefuran	
C2R1 C2R2 C2R3	C2R1 C2R2 C2R3	C= No dinotefuran	

Figure S1: Layout of the experiment

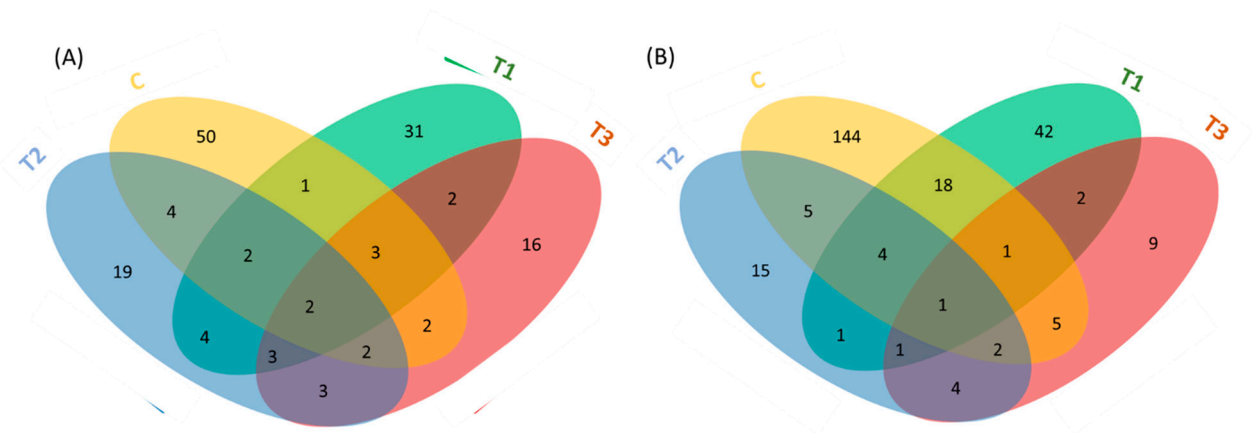


Figure S2: Venn- diagram represents the non-culturable bacterial richness along with bacterial similarities and differences among treatments at (A) 2<sup>nd</sup> week, (B) 4<sup>th</sup> week. Here, C, no dinotefuran application; T1, single dose of dinotefuran application; T2, double dose of dinotefuran application; and T3, triple dose of dinotefuran application.

**Table S1:** Frequency of culturable endophytic bacterial isolates, their nearest genera (>97% similarities) and their accession number from different treatments of systemic insecticides along with control

Treatment	Week	Type	Name of Bacterium	Relative frequency	Accession no.
Control	2 <sup>nd</sup> week	1	<i>Brucella sp.</i>	15%	LC773881
		2	<i>Rhodococcus sp.</i>	15%	LC773882
		3	<i>Bacillus thuringiensis</i>	35%	LC773883
		4	<i>Curtobacterium sp.</i>	5%	LC773884
		5	<i>Burkholderia cenocepacia</i>	5%	LC773885
		6	<i>Methylobacterium sp.</i>	5%	LC773886
		7	<i>Paenarthrobacter nicotinovorans</i>	10%	LC773887
		8	<i>Microbacterium sp</i>	5%	LC773888
		9	<i>Bacillus subtilis</i>	5%	LC773889
	4 <sup>th</sup> week	1	<i>Ralstonia sp.</i>	16%	LC773908
		2	<i>Burkholderia cenocepacia</i>	19%	LC773909
		3	<i>Bacillus thuringiensis</i>	6%	LC773910
		4	<i>Comamonadaceae bacterium</i>	3%	LC773911
		5	<i>Herbaspirillum chlorophenolicum</i>	3%	LC773912
		6	<i>Pseudomonas alcaligenes</i>	9%	LC773913
		7	<i>Sphingobium yanoikuyae</i>	3%	LC773914
		8	<i>Sphingomonas yantingensis</i>	6%	LC773915
		9	<i>Microbacterium sp</i>	6%	LC773916

		10	<i>Staphylococcus epidermidis</i>	6%	LC773917
		11	<i>Ralstonia sp.</i>	6%	LC773918
		12	<i>Sphingomonas koreensis</i>	6%	LC773919
		13	<i>Mitsuaria sp.</i>	6%	LC773920
		14	<i>Agrobacterium tumefaciens</i>	3%	LC773921
N1	2 <sup>nd</sup> week	1	<i>Rhodococcus kroppenstedtii</i>	29%	LC773890
		2	<i>Bacillus sp. (in: firmicutes)</i>	29%	LC773891
		3	<i>Brucella pseudogrignonensis</i>	14%	LC773892
		4	<i>Nocardioides sp.</i>	14%	LC773893
		5	<i>Burkholderia cenocepacia</i>	14%	LC773894
	4 <sup>th</sup> week	1	<i>Pseudomonas sp.</i>	25%	LC773922
		2	<i>Microbacterium sp.</i>	21%	LC773923
		3	<i>Agrobacterium pusense</i>	8%	LC773924
		4	<i>Microbacterium paraoxydans</i>	8%	LC773925
		5	<i>Paenarthrobacter nicotinovorans</i>	21%	LC773926
		6	<i>Variovorax sp.</i>	8%	LC773927
		7	<i>Duganella lactea</i>	8%	LC773928
N2	2 <sup>nd</sup> week	1	<i>Curtobacterium sp.</i>	6%	LC773895
		2	<i>Brucella sp.</i>	31%	LC773896
		3	<i>Stenotrophomonas maltophilia</i>	13%	LC773897

N3	4 <sup>th</sup> week	4	<i>Bacillus thuringiensis</i>	13%	LC773898
		5	<i>Nocardioides sp.</i>	19%	LC773899
		6	<i>Brucella pseudogrignonensis</i>	6%	LC773900
		7	<i>Microbacterium sp</i>	13%	LC773901
		1	<i>Labrys sp. (in: a-proteobacteria)</i>	25%	LC773929
		2	<i>Sphingomonas sp.</i>	8%	LC773930
		3	<i>Stenotrophomonas maltophilia</i>	21%	LC773931
		4	<i>Agrobacterium pusense</i>	4%	LC773932
		5	<i>Sphingobium yanoikuyae</i>	8%	LC773933
		6	<i>Mitsuaria chitosanitabida</i>	8%	LC773934
		7	<i>Bacillus subtilis</i>	4%	LC773935
N3	2 <sup>nd</sup> week	8	<i>Gottfriedia acidiceris</i>	8%	LC773936
		9	<i>Microbacterium sp.</i>	4%	LC773937
		10	<i>Niabella yanshanensis</i>	4%	LC773938
		11	<i>Streptomyces griseorubiginosus</i>	4%	LC773939
		1	<i>Paenarthrobacter nicotinovorans</i>	38%	LC773902
N3	2 <sup>nd</sup> week	2	<i>Burkholderia cenocepacia</i>	19%	LC773903
		3	<i>Curtobacterium sp.</i>	19%	LC773904
		4	<i>Bacillus thuringiensis</i>	6%	LC773905
N3	2 <sup>nd</sup> week	5	<i>Ochrobactrum teleogrylli</i>	13%	LC773906

N4	4 <sup>th</sup> week	6	<i>Brucella pseudogrignonensis</i>	6%	LC773907
		1	<i>Pseudomonas sp.</i>	50%	LC773940
		2	<i>Ensifer adhaerens</i>	31%	LC773941
		3	<i>Microbacterium sp.</i>	13%	LC773942
		4	<i>Bacillus subtilis</i>	6%	LC773943
	2 <sup>nd</sup> week	1	<i>Bacillus proteolyticus</i>	36%	LC773453
		2	<i>Ectobacillus panaciterrae</i>	7%	LC773454
		3	<i>Priestia aryabhattai</i>	14%	LC773455
		4	<i>Sphingomonas sp.</i>	14%	LC773456
		5	<i>Pseudomonas koreensis</i>	7%	LC773457
		6	<i>Paenibacillus glycanilyticus</i>	7%	LC773458
		7	<i>Paenibacillus sp.</i>	14%	LC773459
	4 <sup>th</sup> week	1	<i>Bacillus subtilis</i>	33%	LC773460
		2	<i>Asticcacaulis taihuensis</i>	28%	LC773461
		3	<i>Pseudoxanthomonas sp.</i>	17%	LC773462
		4	<i>Priestia aryabhattai</i>	11%	LC773463
		5	<i>Stenotrophomonas maltophilia</i>	6%	LC773464
		6	<i>Paenibacillus glycanilyticus</i>	6%	LC773465

**Table S2:** Frequency of culturable endophytic bacterial isolates, their nearest genera (>97% similarities) and their accession number from different doses of dinotefuran treated plants along with control

Treatment	Week	Type	Name of Bacterium	Relative frequency	Accession no.
Control	2 <sup>nd</sup> week	1	<i>Priestia aryabhattai</i>	25%	LC773429
		2	<i>Bacillus velezensis</i>	8%	LC773430
		3	<i>Paenibacillus sp.</i>	17%	LC773431
		4	<i>Bacillus tropicus</i>	8%	LC773432
		5	<i>Paenibacillus pocheonensis</i>	8%	LC773433
		6	<i>Paenibacillus glycanilyticus</i>	8%	LC773434
		7	<i>Bacillus subtilis</i>	8%	LC773435
		8	<i>Burkholderia cenocepacia</i>	8%	LC773436
		9	<i>Bacillus cereus</i>	8%	LC773437
	4 <sup>th</sup> week	1	<i>Bacillus cereus</i>	21%	LC773438
		2	<i>Paenibacillus sp.</i>	15%	LC773439
		3	<i>Paenibacillus cineris</i>	9%	LC773440
		4	<i>Paenibacillus favisporus</i>	6%	LC773441
		5	<i>Neobacillus drementensis</i>	6%	LC773442
		6	<i>Paenibacillus glycanilyticus</i>	6%	LC773443
		7	<i>Bosea sp. (in: a-proteobacteria)</i>	3%	LC773444
		8	<i>Priestia aryabhattai</i>	6%	LC773445
		9	<i>Lysinibacillus xylanilyticus</i>	6%	LC773446
		10	<i>Bacillus thuringiensis</i>	6%	LC773447
		11	<i>Bacillus cereus</i>	3%	LC773448

T1		12	<i>Bacillus sp.</i>	6%	LC773449
		13	<i>Burkholderia cenocepacia</i>	3%	LC773450
		14	<i>Bacillus subtilis</i>	3%	LC773451
		15	<i>Paenibacillus rigui</i>	3%	LC773452
	2 <sup>nd</sup> week	1	<i>Bacillus proteolyticus</i>	36%	LC773453
		2	<i>Ectobacillus panaciterrae</i>	7%	LC773454
		3	<i>Priestia aryabhattai</i>	14%	LC773455
		4	<i>Sphingomonas sp.</i>	14%	LC773456
		5	<i>Pseudomonas koreensis</i>	7%	LC773457
		6	<i>Paenibacillus glycanilyticus</i>	7%	LC773458
		7	<i>Paenibacillus sp.</i>	14%	LC773459
	4 <sup>th</sup> week	1	<i>Bacillus subtilis</i>	33%	LC773460
		2	<i>Asticcacaulis taihuensis</i>	28%	LC773461
		3	<i>Pseudoxanthomonas sp.</i>	17%	LC773462
		4	<i>Priestia aryabhattai</i>	11%	LC773463
		5	<i>Stenotrophomonas maltophilia</i>	6%	LC773464
		6	<i>Paenibacillus glycanilyticus</i>	6%	LC773465
T2	2 <sup>nd</sup> week	1	<i>Pseudomonas sp.</i>	27%	LC773466
		2	<i>Paenibacillus sp.</i>	18%	LC773467
		3	<i>Paenibacillus glycanilyticus</i>	18%	LC773468
		4	<i>Bacillus sp.</i>	9%	LC773469
		5	<i>Bacillus subtilis</i>	9%	LC773470
		6	<i>Priestia megaterium</i>	18%	LC773471

T3	4 <sup>th</sup> week	1	<i>Priestia megaterium</i>	38%	LC773472
		2	<i>Paenibacillus</i> sp.	28%	LC773473
		3	<i>Bacillus velezensis</i>	17%	LC773474
		4	<i>Mesorhizobium</i> sp.	10%	LC773475
		5	<i>Sphingobium</i> sp.	3%	LC773476
		6	<i>Priestia aryabhattai</i>	3%	LC773477
	2 <sup>nd</sup> week	1	<i>Margalitia shackletonii</i>	43%	LC773478
		2	<i>Nocardioides aromaticivorans</i>	29%	LC773479
		3	<i>Paenarthrobacter nitroguajacolicus</i>	14%	LC773480
		4	<i>Priestia aryabhattai</i>	7%	LC773481
		5	<i>Priestia megaterium</i>	7%	LC773482
	4 <sup>th</sup> week	1	<i>Pseudomonas koreensis</i>	50%	LC773483
		2	<i>Priestia aryabhattai</i>	17%	LC773484
		3	<i>Bacillus pseudomycoides</i>	17%	LC773485
		4	<i>Bacillus thuringiensis</i>	17%	LC773486