



Supplementary Material

Evaluation of Different *Brassica* spp. Against Aphids, Under Multan Agro-Ecological Conditions

Mah Jabeen and Amjad Farooq*

Institute of Pure and Applied Biology, Bahauddin Zakariya University, Multan, Pakistan

Supplementary Table I. Aphids population per tiller on various species of brassica at different dates of observation during the crop season 2009-10.

<i>Brassica</i> spp.	Date of Observation															
	03.12.2009				10.12.2009				17.12.2009				24.12.2009			
	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
<i>B. napus</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
<i>B. juncea</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>B. compestris</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>B. rapa</i>	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Brassica</i> spp.	Date of Observation															
	31.12.2009				07.01.2010				14.01.2010				21.01.2010			
	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
<i>B. napus</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.0	0.2	0.1	0.1
<i>B. juncea</i>	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.1	0.2	0.1
<i>B. compestris</i>	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0
<i>B. rapa</i>	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.0	0.2	0.0	0.1
<i>Brassica</i> spp.	Date of Observation															
	28.01.2010				04.02.2010				11.02.2010				18.02.2010			
	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
<i>B. napus</i>	0.3	0.1	0.2	0.2	1.0	2.0	1.0	1.0	7.1	5.2	6.4	6.5	7.2	9.1	10.1	6.5
<i>B. juncea</i>	0.1	0.0	0.0	0.1	2.0	0.4	0.7	0.4	5.1	4.3	4.5	4.2	5.6	9.2	6.5	5.0
<i>B. compestris</i>	0.0	0.1	0.2	0.0	1.0	0.3	1.0	2.0	0.1	0.0	0.0	2.0	1.2	1.2	0.8	0.7
<i>B. rapa</i>	0.1	0.2	0.1	0.0	2.0	2.0	3.0	1.0	1.0	0.5	1.0	2.0	1.2	0.7	2.0	0.9
<i>Brassica</i> spp.	Date of Observation															
	25.02.2010				04.03.2010				11.03.2010				18.03.2010			
	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
<i>B. napus</i>	16.0	13.0	17.6	9.3	27.7	23.8	28.4	22.4	28.4	19.5	26.7	32.0	19.6	20.8	27.4	25.3
<i>B. juncea</i>	6.5	11.6	10.4	13.6	23.9	21.8	22.6	20.5	23.2	18.0	21.2	27.0	17.6	20.5	15.4	18.6
<i>B. compestris</i>	0.1	0.6	3.8	2.0	0.4	2.6	1.5	1.6	0.1	0.2	0.4	0.5	0.0	0.2	0.5	0.8
<i>B. rapa</i>	0.0	1.4	2.7	2.5	2.3	1.0	1.5	3.3	2.2	2.6	1.5	2.0	0.1	0.2	0.8	0.3
<i>Brassica</i> spp.	Date of Observation															
	25.03.2010															
	R1	R2	R3	R4												
<i>B. napus</i>	13.3	12.5	10.6	7.5												
<i>B. juncea</i>	12.7	4.4	8.9	4.5												
<i>B. compestris</i>	0.0	0.2	0.0	0.0												
<i>B. rapa</i>	0.5	0.2	0.6	0.7												

* Corresponding author: amjadzubio@yahoo.com
 0030-9923/2020/0006-2173 \$ 9.00/0
 Copyright 2020 Zoological Society of Pakistan

Supplementary Table II. Aphids population per tiller on various species of brassica at different dates of observation during the crop season 2010-2011.

<i>Brassica</i> spp.	Date of Observation															
	03.12.2010				10.12.2010				17.12.2010				24.12.2010			
	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
<i>B. napus</i>	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
<i>B. juncea</i>	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0
<i>B. compestris</i>	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
<i>B. rapa</i>	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>Brassica</i> spp.	Date of Observation															
	31.12.2010				07.01.2011				14.01.2011				21.01.2011			
	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
<i>B. napus</i>	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1
<i>B. juncea</i>	0	0	1	0	0	2	1	3	0	0	0	0	0	0	1	2
<i>B. compestris</i>	0	0	0	0	0	1	0	0	1	0	2	0	0	0	1	0
<i>B. rapa</i>	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0
<i>Brassica</i> spp.	Date of Observation															
	28.01.2011				07.02.2011				14.02.2011				21.02.2011			
	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
<i>B. napus</i>	0	1	0	2	1	3	5	1.2	6.1	4.2	5.4	5.5	6.1	8.5	9.0	5.4
<i>B. juncea</i>	2	0	0	0	2	1	5	2	4.1	4.2	3.2	3.5	4.5	8.0	5.2	4.0
<i>B. compestris</i>	0	0	1	0	1	2	2	1.5	3.0	0.2	0.1	3.0	2.2	2.3	1.0	0.9
<i>B. rapa</i>	1	2	1	0	2.5	2	2.1	2.2	1.0	0.5	1.0	1.0	1.3	0.8	3.0	0.1
<i>Brassica</i> spp.	Date of Observation															
	28.02.2011				07.03.2011				14.03.2011				21.03.2011			
	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
<i>B. napus</i>	13.0	10.0	15.4	8.3	26.4	22.2	25.3	19.4	26.4	18.2	23.4	29.0	17.6	18.5	25.2	23.1
<i>B. juncea</i>	5.2	10.0	9.4	10.4	25.7	24.2	20.9	23.4	20.2	16.5	19.5	23.0	19.4	22.2	17.1	20.0
<i>B. compestris</i>	0.1	0.7	4.8	3.0	0.9	4.7	3.2	2.4	0.4	0.5	0.6	0.7	0.0	0.4	0.6	0.9
<i>B. rapa</i>	0.0	2.5	2.3	2.0	4.2	2.0	3.5	2.1	3.2	3.5	2.4	2.4	0.2	0.4	0.2	0.1
<i>Brassica</i> spp.	Date of Observation															
	28.03.2011															
	R1	R2	R3	R4												
<i>B. napus</i>	15.2	14.1	12.2	9.4												
<i>B. juncea</i>	10.4	6.2	10.7	6.5												
<i>B. compestris</i>	0.0	0.4	0.0	0.1												
<i>B. rapa</i>	0.4	0.3	0.7	0.8												

Supplementary Table III. Aphids population per tiller on various species of brassica at different dates of observation during the crop season 2011-2012.

<i>Brassica</i> spp.	Date of Observation															
	03.12.2011				10.12.2011				17.12.2011				24.12.2011			
	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
<i>B. napus</i>	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
<i>B. juncea</i>	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
<i>B. compestris</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>B. rapa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Brassica</i> spp.	Date of Observation															
	31.12.2011				07.01.2012				14.01.2012				21.01.2012			
	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
<i>B. napus</i>	0	0	0	0	0.2	0	0.1	0	0	0.3	0.4	0.1	0.1	0.2	0.1	0.3
<i>B. juncea</i>	0	0	0	0	0.1	0	0	0.1	0.2	0	0.3	0	0.2	0.1	0	0.3
<i>B. juncea</i>	0	0	0	0	0.1	0	0	0.1	0.2	0	0.3	0	0.2	0.1	0	0.3
<i>B. compestris</i>	0	0	0	0	0.1	0	0	0.1	0.1	0	0.2	0	0.1	0	0.2	0.1
<i>B. rapa</i>	0	0	0	0	0.1	0	0.3	0	0.1	0	0.3	0.2	0.3	0	0.2	0.1
<i>Brassica</i> spp.	Date of Observation															
	28.01.2012				04.02.2012				11.02.2012				18.02.2012			
	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
<i>B. napus</i>	0	0.3	0.2	0.5	2.0	3.4	4.0	2.1	6.1	5.1	4.0	3.3	8.2	10.1	11.0	7.5
<i>B. juncea</i>	0.1	0	0.2	0.2	1.1	2.1	1.1	3.0	4.1	3.2	2.1	1.6	6.6	9.1	7.5	6.0
<i>B. compestris</i>	0.2	0	0.1	0	0	0.2	0	0.2	0.3	0.1	0	0.7	1.3	0	0.8	0.6
<i>B. rapa</i>	0.4	0.3	0	0.1	0	0.1	0	0	0.4	0.5	0	0.6	1.2	0.7	1.0	0.9
<i>Brassica</i> spp.	Date of Observation															
	25.02.2012				04.03.2012				11.03.2012				18.03.2012			
	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
<i>B. napus</i>	18.0	15.0	18.6	11.3	25.6	30.7	21.4	19.7	30.6	21.7	28.9	35.0	35.0	21.7	22.9	29.4
<i>B. juncea</i>	7.5	12.6	13.4	15.6	21.7	19.6	20.4	18.3	25.5	20.4	23.4	30.0	15.6	15.6	17.9	12.4
<i>B. compestris</i>	0	0.4	2.6	0.9	0.2	1.3	0.6	0.5	0	0	0.3	0.4	0	0	0.1	0.4
<i>B. rapa</i>	0	1.3	1.7	1.5	1.3	0.9	0.7	2.3	1.2	0.6	0.5	2.0	0	0	0.7	0.8
<i>Brassica</i> spp.	Date of Observation															
	25.03.2012															
	R1	R2	R3	R4												
<i>B. napus</i>	10.3	11.4	7.5	6.9												
<i>B. juncea</i>	10.7	2.4	10.9	3.5												
<i>B. compestris</i>	0	0	0	0												
<i>B. rapa</i>	0.3	0	0.4	0.5												