

Online Resource 1. Results of field resistance screen. Five plants per accession were tested. Each plant was infested with 20 *Delia radicum* eggs. Mean #Delia is the mean total number of pupae and larvae recovered per accession.

Accession ¹	Species	Inst code ²	Mean #Delia	Plant vigour	Mean # days until wilting	Mean # days until collapse	% plants wilted	% plants collapsed	% plants dead
BRA2848	<i>B. bourgeau</i>	DEU146	0.5	3	27		20	0	0
PI662588	<i>B. cretica</i>	USDA	0	2			0	0	0
BRA3093	<i>B. drepanensis</i>	WUR	0	3	23	25	20	20	0
PI633081	<i>B. fruticulosa</i>	USDA	0	4			0	0	0
BRA1727	<i>B. fruticulosa</i>	DEU146	0	4			0	0	0
HRIGRU12483	<i>B. hilarionis</i>	GBR006	0	1	20		20	0	0
BRA2856	<i>B. incana</i>	DEU146	0	3	18		20	0	0
PI435898	<i>B. incana</i>	USDA	0	3			0	0	0
O-502	<i>B. macrocarpa</i>	JPN059	0.2	1	36		40	0	0
BRA2944	<i>B. macrocarpa</i>	WUR	4	2	26		20	0	0
BRA2950	<i>B. montana</i>	DEU146	1	3			0	0	0
BRA2994	<i>B. spinescens</i>	DEU146	0	2			0	0	0
Bra2922	<i>B. villosa</i>	DEU146	0.2	2	24		20	0	0
BOL2010-0437	<i>B. oleracea</i>	WUR	0	2			0	0	0
CGN14080	<i>B. oleracea</i>	CGN	16.5	3			0	0	0
BRA2850	<i>B. balearica</i>	DEU146	0.4	1	25		40	0	0
K7557	<i>B. balearica</i>	DEU146	0	1	18		40	0	0
PI435896	<i>B. balearica</i>	USDA	0				0	0	0
K9825	<i>B. bourgeau</i>	DEU146	2.5	3			0	0	0
K6501	<i>B. cretica</i>	DEU146	3.5	1	10	36	80	20	0
K10120	<i>B. cretica</i>	DEU146	1	1	21	22	80	20	0
K6631	<i>B. cretica</i>	DEU146	8	3	46		20	0	0
639	<i>B. cretica</i>	GRC005	0.6	2	18		40	0	0
1964	<i>B. cretica</i>	GRC005	0.2	1	26	34	60	20	0
657	<i>B. cretica</i>	GRC005	0	2			0	0	0
Cr-5	<i>B. cretica</i>	JPN059	0.5	3	22		20	0	0
Cr-7	<i>B. cretica</i>	JPN059	0.3	2	26		40	0	0
Cr-8	<i>B. cretica</i>	JPN059	0	2	26		40	0	0
Cr-9	<i>B. cretica</i>	JPN059	0	2			0	0	0
PI662589	<i>B. drepanensis</i>	USDA	1.8	2			0	0	0
Fr-401	<i>B. fruticulosa</i>	JPN059	0.2	2			0	0	0
Fr-301	<i>B. fruticulosa</i>	JPN059	0	4			0	0	0
Fr-503	<i>B. fruticulosa</i>	JPN059	0.3	4			0	0	0
PI649097	<i>B. fruticulosa</i>	USDA	0	3	15		20	0	0
BRA3043	<i>B. fruticulosa</i>	DEU146	0	3			0	0	0
BRA3044	<i>B. fruticulosa</i>	DEU146	0	3			0	0	0
BRA2834	<i>B. fruticulosa</i>	DEU146	0.2	3			0	0	0
BRA2991	<i>B. fruticulosa</i>	DEU146	0	3			0	0	0
BRA2836	<i>B. fruticulosa</i>	DEU146	0	3			0	0	0
BRA1810	<i>B. fruticulosa</i>	DEU146	0	3			0	0	0
BRA1039	<i>B. fruticulosa</i>	DEU146	0.2	4			0	0	0
BRA2835	<i>B. fruticulosa</i>	DEU146	0	3			0	0	0
BRA3042	<i>B. fruticulosa</i>	DEU146	0.2	2			0	0	0
BRA998	<i>B. fruticulosa</i>	DEU146	0	3			0	0	0
BRA2917	<i>B. fruticulosa</i>	DEU146	0.2	3	15		20	0	0
BRA2916	<i>B. fruticulosa</i>	DEU146	0.3	2			0	0	0
PI649099	<i>B. fruticulosa</i>	USDA	0	1			0	0	0
PI597826	<i>B. fruticulosa</i>	USDA	0	4			0	0	0
PI649098	<i>B. fruticulosa</i>	USDA	0	3			0	0	0
PI597825	<i>B. fruticulosa</i>	USDA	0.2	2			0	0	0
BRA1166	<i>B. incana</i>	DEU146	0.7	2	25		60	0	20
BRA1262	<i>B. incana</i>	DEU146	11.5	4			0	0	0
BRA2918	<i>B. incana</i>	DEU146	0.8	3	18		80	0	0
K10373	<i>B. incana</i>	DEU146	6	3	19	27	60	40	0
K9238	<i>B. incana</i>	DEU146	1.7	3	25	28	40	20	0
HRIGRU6691	<i>B. incana</i>	GBR006	2.3	3	18	16	100	20	20
Inc-1	<i>B. incana</i>	JPN059	0.5	2	26		60	0	0
PI662591	<i>B. incana</i>	USDA	0.2	3			0	0	0
PI662584	<i>B. incana</i>	USDA	0	2			0	0	0
BOL2009-0089	<i>B. incana</i>	WUR	0.3	2	22		80	0	0
BOL2009-0090	<i>B. incana</i>	WUR	8	3			0	0	0
Ins-1	<i>B. insularis</i>	JPN059	4.3	3	27		40	0	0
PI662587	<i>B. insularis</i>	USDA	0.4	2			0	0	0

Accession	Species	Inst code*	Mean #Delia	Plant vigour	Mean # days until wilting	Mean # days until collapse	% plants wilted	% plants collapsed	% plants dead
K7635	<i>B. macrocarpa</i>	DEU146	0.6	2	35		40	0	0
O-503	<i>B. macrocarpa</i>	JPN059	0	1	35		40	0	0
PI662585	<i>B. macrocarpa</i>	USDA	0	2	15		20	0	0
K8824	<i>B. maurorum</i>	DEU146	6	3	46		20	0	0
BRA2920	<i>B. maurorum</i>	DEU146	10	3	28	28	60	20	0
PI633117	<i>B. maurorum</i>	USDA	0.8	4			0	0	0
BRA1644	<i>B. montana</i>	DEU146	11.8	3	42		20	0	0
K6675	<i>B. montana</i>	DEU146	2.3	2	33	26	60	20	0
K7220	<i>B. montana</i>	DEU146	6.3	3	32		60	0	0
K7223	<i>B. montana</i>	DEU146	2.8	2			0	0	0
K8380	<i>B. montana</i>	DEU146	5	2	10		20	0	0
BOL2009-0091	<i>B. montana</i>	WUR	9	2	16		20	0	0
Rivera	<i>B. oleracea</i>	Bejo Zaden	20.3	4			0	0	0
BRA3092	<i>B. oleracea</i>	DEU146	8	2	42		60	0	0
HRIGRU7795	<i>B. oleracea</i>	GBR006	10	3			0	0	0
HRIGRU8694	<i>B. oleracea</i>	GBR006	1	2	10	22	60	20	0
HRIGRU8707	<i>B. oleracea</i>	GBR006	9.5	3	40		20	0	0
HRIGRU8714	<i>B. oleracea</i>	GBR006	2.8	4	26		20	0	0
HRIGRU8724	<i>B. oleracea</i>	GBR006	11.3	3	39		20	0	0
K6877	<i>B. rupestris</i>	DEU146	2	1	15		40	0	20
BRA2851	<i>B. rupestris</i>	DEU146	3.5	1	30		80	0	0
K10259	<i>B. rupestris</i>	DEU146	0.6	3			40	0	0
K8823	<i>B. spinescens</i>	DEU146	0	2			0	0	0
PI649212	<i>B. spinescens</i>	USDA	0	3			0	0	0
BRA2951	<i>B. sylvestris</i>	DEU146	2.7	2	42		20	0	0
K9402	<i>B. villosa</i>	DEU146	0	1	20		100	0	0
BRA2923	<i>B. villosa</i>	DEU146	1	3	40		20	0	0
K6926	<i>B. villosa</i>	DEU146	0	3	23		20	0	0
HRIGRU6848	<i>B. villosa</i>	GBR006	0	2	7		20	0	20
Vill-1	<i>B. villosa</i>	JPN059	0	2	39		80	0	0
BOL2009-0088	<i>B. villosa</i>	WUR	0	2	19		60	0	0

¹ The first 15 accessions are listed in the same sequence as in Tables 3A and 3B except from *B. oleracea* Accession A that was not included in the field test.

² Inst code: CGN - Centre for Genetic Resources, The Netherlands; DEU146 - IPK Gatersleben, Germany; GBR006- Warwick Genetic Resources Unit, University of Warwick, UK; GRC005 - Greek Genebank, Agricultural Research Centre of Macedonia and Thrace, National Agricultural Research Foundation; JPN059 - Tohoku University Brassica Seed Bank, Japan; USDA - National Plant Germplasm System, United States Department of Agriculture; WUR - Department of Plant Breeding, Wageningen University and Research Centre, The Netherlands.