

**Ontario Phytophthora Tolerance Test 2021**  
**Woodslee, Ontario**  
**This Report Contains Published Registered Varieties Only**

**Planting Date:** June 2, 2021

<b>Stand Counts:</b>	<b>HUZ</b>	<b>Date</b>
	2200	August 19, 2021
	2400	August 19, 2021
	2600	September 2, 2021
	2800	September 2, 2021
	3100	September 13, 2021
	3400	September 13, 2021

**Plot Size:** Single row, 50 seeds/row

**Replications:** 4, randomized blocks

Phytophthora root rot testing is carried out on clay soils infested with common races of Phytophthora at Woodslee. Phytophthora Root Rot (PRR) ratings were changed starting in 2019. Previous methodology used counting plants shortly after emergence (3-4 weeks after planting) and a subsequent counting 4 weeks later. The loss was estimated based on the difference between count 2 and count 1, taken as a percentage. The limitation in this counting method is that it does not take into account pre-emergence mortality due to PRR nor does it take into account late season mortality. Starting in 2019 we began expressing the PRR ratings based on final stand in a High phytophthora pressure environment. This final stand was only rated once for all maturity groups and this was again changed to rate the plants near the R6 growth stage which was done in 2020 in order to capture late season PRR damage.

### 2021 Phytophthora Tolerance Test 2200

Entry	Name		Final Stand	% Stand	%loss
1	Bourke R2X		33.50	67.0	33.0
4	DKB0009-89		34.00	68.0	32.0
5	DKB002-32		31.25	62.5	37.5
10	DKB00-20		43.75	87.5	12.5
14	DKB008-48		34.00	68.0	32.0
15	Mahony R2		27.00	54.0	46.0
17	PS 0068 XR		35.25	70.5	29.5
18	PS 0074 R2		35.50	71.0	29.0
20	S0009-M2		25.25	50.5	49.5
21	S007-Y4		35.75	71.5	28.5
22	S007-Z1X		41.25	82.5	17.5
23	S008-N2		32.75	65.5	34.5
25	Sloan	check – low field tolerance	31.50	63.0	37.0
26	Conrad	check – high field tolerance	29.50	59.0	41.0
27	Williams	check – medium field tolerance	29.00	58.0	42.0
28	OX20-8	check- no Field tolerance	4.25	8.5	91.5
Mean of Entries			33.43		
CV			31.48		

## 2021 Phytophthora Tolerance Test 2400

Entry	Name		Final Stand	% Stand	%loss
1	LS 008R21		31.00	62.0	38.0
2	PRO 2525R2		38.25	76.5	23.5
3	Salto R2		38.00	76.0	24.0
4	S01-C4X		39.25	78.5	21.5
5	PRO 03X74		36.00	72.0	28.0
6	PS 0098 XR		36.25	72.5	27.5
7	Donaldo R2X		36.25	72.5	27.5
8	Rico R2X		36.75	73.5	26.5
9	DKB008-48		42.50	85.0	15.0
10	DKB00-20		36.25	72.5	27.5
11	DKB03-25		37.75	75.5	24.5
12	Bronco R2X		30.50	61.0	39.0
13	S04-J6X		39.75	79.5	20.5
14	SI 00820XTN		30.25	60.5	39.5
15	SI 0320XTN		41.25	82.5	17.5
16	Verso R2X		31.75	63.5	36.5
17	Emilio E3		36.50	73.0	27.0
18	S02-M4XF		40.25	80.5	19.5
19	SI 00620XTN		38.75	77.5	22.5
20	SI 007XTN		31.75	63.5	36.5
21	Sloan	check – low field tolerance	25.75	51.5	48.5
22	Conrad	check – high field tolerance	40.75	81.5	18.5
23	Williams	check – medium field tolerance	38.50	77.0	23.0
24	OX20-8	check- no Field tolerance	4.75	9.5	90.5
Mean of Entries			36.45		
CV			28.47		

## 2021 Phytophthora Tolerance Test 2600

Entry	Name	Final Stand	% Stand	%loss
1	OAC Lakeview	35.25	70.5	29.5
2	OAC Champion	28.75	57.5	42.5
3	OAC Wallace	35.50	71.0	29.0
4	OAC Drayton	39.00	78.0	22.0
5	Acora	34.25	68.5	31.5
6	Kyoto	33.25	66.5	33.5
7	S07-M8	33.50	67.0	33.0
8	OAC Strive	35.75	71.5	28.5
9	Astor	*		
10	Neptune	37.50	75.0	25.0
11	Marula	32.00	64.0	36.0
12	OAC Evolution	40.00	80.0	20.0
13	Panorama	35.75	71.5	28.5
14	Genesis	33.25	66.5	33.5
15	Skyline	36.00	72.0	28.0
16	OAC Acclaim	34.00	68.0	32.0
17	S10-R2	33.50	67.0	33.0
18	AAC Shinju	33.75	67.5	32.5
19	OAC Bounty	39.00	78.0	22.0
20	AAC Hoshi	27.75	55.5	44.5
21	Angelica	21.25	42.5	57.5
22	OAC Hastings	26.50	53.0	47.0
23	OAC Elevation	31.00	62.0	38.0
24	Ezra	30.00	60.0	40.0
25	Dunham	34.25	68.5	31.5
26	OAC Kamran	35.75	71.5	28.5
31	AAC Larkin	28.00	56.0	44.0
32	Kazart	27.50	55.0	45.0
33	Windsor	35.75	71.5	28.5
34	Mozart	29.75	59.5	40.5
35	Cypress	37.75	75.5	24.5
36	Atena	34.75	69.5	30.5
38	Finch	35.75	71.5	28.5
39	Kagawa	33.75	67.5	32.5
40	Asana	38.50	77.0	23.0
42	AAC Kovik	*		
43	Primo	29.00	58.0	42.0
45	S04-K9	34.75	69.5	30.5
46	Aurelina	36.75	73.5	26.5
47	Kristian	38.50	77.0	23.0
48	Asahi	25.50	51.0	49.0
49	Atiron	34.50	69.0	31.0
50	Arenda	33.50	67.0	33.0
51	S03-P4	28.75	57.5	42.5
75	Haltifo	31.50	63.0	37.0
82	JAGO	33.50	67.0	33.0
83	BAFFIN	38.00	76.0	24.0
85	Abiola	*		
86	Alameda	33.75	67.5	32.5
92	Aya	41.75	83.5	16.5
113	Lindber	26.00	52.0	48.0
126	PRO 2625R2	34.00	68.0	32.0

Entry	Name		Final Stand	% Stand	%loss
127	PS 0416 R2		36.75	73.5	26.5
128	Altitude R2		33.00	66.0	34.0
129	Miko R2		40.00	80.0	20.0
130	Vertigo R2		38.00	76.0	24.0
131	S07-K5X		33.50	67.0	33.0
132	PRO 2735R2C		43.00	86.0	14.0
133	S09-R8X		36.25	72.5	27.5
134	Expand R2X		37.75	75.5	24.5
135	PS 0779 XRN		29.75	59.5	40.5
136	PS 0229 XRN		35.75	71.5	28.5
137	Beliveau R2X		43.25	86.5	13.5
138	PS 0420 XRN		37.75	75.5	24.5
139	DKB08-98		37.75	75.5	24.5
140	DKB11-84		41.25	82.5	17.5
141	Enyo E3		37.50	75.0	25.0
142	P07A18X		37.00	74.0	26.0
143	Nano R2X		39.25	78.5	21.5
144	S12-M5X		37.25	74.5	25.5
145	SI 0720E3N		36.50	73.0	27.0
146	SI 1120E3N		38.75	77.5	22.5
147	SI 0620XTN		29.00	58.0	42.0
148	EXP0321XRN		31.75	63.5	36.5
152	Amino R2X		33.75	67.5	32.5
153	Elico E3		32.50	65.0	35.0
154	P06A48X		36.00	72.0	28.0
160	CL1941256		34.75	69.5	30.5
162	S10-W8XF		36.25	72.5	27.5
163	SI 0921XTN		36.00	72.0	28.0
165	Samson E3		38.00	76.0	24.0
166	Shaw R2X		37.00	74.0	26.0
167	Harvey E3		29.75	59.5	40.5
168	Seabrook R2X		32.00	64.0	36.0
169	Park E3		32.50	65.0	35.0
170	Orr R2X		31.75	63.5	36.5
171	Ramage XF		36.50	73.0	27.0
173	Landmark E3		33.50	67.0	33.0
174	Sloan	check – low field tolerance	13.75	27.5	72.5
175	Conrad	check – high field tolerance	30.00	60.0	40.0
176	Williams	check – medium field tolerance	34.00	68.0	32.0
177	OX20-8	check- no Field tolerance	1.75	3.5	96.5

\* entry had metribuzin damage, no counts provided

Mean of Entries	33.20
CV	24.58

### 2021 Phytophthora Tolerance Test 2800

Entry	Name		Final Stand	% Stand	%loss
1	DH530		25.75	51.5	48.5
2	Candor		34.75	69.5	30.5
3	Eider		39.00	78.0	22.0
4	Havane		33.00	66.0	34.0
5	Emperor		31.50	63.0	37.0
6	Osaka		37.50	75.0	25.0
7	OAC Paris		35.75	71.5	28.5
8	Zana		32.50	65.0	35.0
9	OAC Malory		33.50	67.0	33.0
10	Azalea		26.00	52.0	48.0
11	OAC Rush		36.00	72.0	28.0
12	OAC Aberdeen		35.50	71.0	29.0
13	Laurentian		35.50	71.0	29.0
14	Odessa		39.50	79.0	21.0
15	Barton		36.75	73.5	26.5
17	S12-J7		38.50	77.0	23.0
30	Bercika		34.25	68.5	31.5
31	Baltazar		37.75	75.5	24.5
32	Forto		39.75	79.5	20.5
33	Taku		33.00	66.0	34.0
56	PRO 3025R2C		34.50	69.0	31.0
57	P19A14X		42.50	85.0	15.0
58	PS 1338 XRN		34.25	68.5	31.5
59	DKB15-54		38.75	77.5	22.5
60	PS 1119 XRN		31.00	62.0	38.0
61	Dionne R2X		38.50	77.0	23.0
62	S14-U9X		34.00	68.0	32.0
63	P16T71E		40.25	80.5	19.5
64	PRO 13X836N		33.75	67.5	32.5
65	PRO 15X926N		27.00	54.0	46.0
66	Rondo R2X		37.25	74.5	25.5
67	DKB11-51		33.00	66.0	34.0
68	DKB19-80		39.75	79.5	20.5
69	DKB14-65		35.75	71.5	28.5
70	PS 1520 XRN		36.75	73.5	26.5
71	Neo R2X		35.50	71.0	29.0
72	S16-K2X		34.50	69.0	31.0
73	Savard E3		39.75	79.5	20.5
74	SI 1520E3N		40.50	81.0	19.0
75	SI 1820XTN		41.75	83.5	16.5
76	EXP1421EN		38.25	76.5	23.5
77	EXP1721EN		43.25	86.5	13.5
79	Pico R2X		34.25	68.5	31.5
80	P17A51X		36.25	72.5	27.5
81	14-W6E3		37.50	75.0	25.0
82	S14-C7XF		37.50	75.0	25.0
85	Keith XF		37.00	74.0	26.0
86	Compass E3		36.25	72.5	27.5
87	Sloan	check – low field tolerance	26.00	52.0	48.0
88	Conrad	check – high field tolerance	40.00	80.0	20.0
89	Williams	check – medium field tolerance	37.25	74.5	25.5
90	OX20-8	check- no Field tolerance	2.25	4.5	95.5
Mean of Entries			36.03		
CV			22.10		

## 2021 Phytophthora Tolerance Test 3100

Entry	Name		Final Stand	% Stand	%loss
1	OAC Kent		36.75	73.5	26.5
2	OAC Marvel		39.50	79.0	21.0
3	SG 2311		35.75	71.5	28.5
4	AAC 26-15		37.00	74.0	26.0
5	OAC Bruton		33.50	67.0	33.0
6	AAC Big Ben		41.25	82.5	17.5
7	AAC Wigle		32.25	64.5	35.5
8	P21A20		33.00	66.0	34.0
13	S20-M1		32.75	65.5	34.5
16	S21-C6		35.75	71.5	28.5
21	Hickstead		41.50	83.0	17.0
31	PS 2020 XRN		36.00	72.0	28.0
32	PS 2444 XRN		32.50	65.0	35.0
33	PS 2666 XRN		32.25	64.5	35.5
34	Express R2X		39.00	78.0	22.0
35	S20-L8X		35.25	70.5	29.5
36	S22-J4X		34.50	69.0	31.0
37	DKB23-40		30.50	61.0	39.0
38	DKB25-57		36.00	72.0	28.0
39	PS 2120 EN		33.50	67.0	33.0
40	S20-E3		35.00	70.0	30.0
41	PS 2521 XFN		36.75	73.5	26.5
43	DKB21-30XF		39.75	79.5	20.5
51	SI 2121XTN		40.25	80.5	19.5
52	SI 2321E3N		39.50	79.0	21.0
53	Ranger R2X		40.50	81.0	19.0
54	Cohen R2X		46.00	92.0	8.0
55	Curve E3		32.50	65.0	35.0
56	Sloan	check – low field tolerance	18.25	36.5	63.5
57	Conrad	check – high field tolerance	30.25	60.5	39.5
58	Williams	check – medium field tolerance	35.00	70.0	30.0
59	OX20-8	check- no Field tolerance	1.50	3.0	97.0
Mean of Entries			37.07		
CV			22.31		

**2021 Phytophthora Tolerance Test 3400**

<b>Entry</b>	<b>Name</b>		<b>Final Stand</b>	<b>% Stand</b>	<b>%loss</b>
2	DKB33-54		37.75	75.5	24.5
3	S31-Y2X		40.25	80.5	19.5
4	PS 2889XRN		33.50	67.0	33.0
5	S29-R5X		39.50	79.0	21.0
6	PS 2720 EN		39.75	79.5	20.5
7	S26-E3		39.00	78.0	22.0
8	Francis E3		34.00	68.0	32.0
10	S28-H4E3		35.25	70.5	29.5
11	Sloan	check – low field tolerance	18.25	36.5	63.5
12	Conrad	check – high field tolerance	38.25	76.5	23.5
13	Williams	check – medium field tolerance	34.00	68.0	32.0
14	OX20-8	check- no Field tolerance	0.75	1.5	98.5
Mean of Entries			37.28		
CV			36.11		