

Canola Sclerotinia Fungicide, CREC, 2003.

(G. Endres and B. Henson)

Table 1.

						Sclerotinia			
				Bloom stage		Plant		Plot	Seed
				30-40%	50-60%	Incidence	Severity*	Severity	Yield
Trt	Product	Rate/A		2-Jul	4-Jul	%	0-5		lb/A
1	Untreated					69	2.3	32.1	1534
2	BLOCKER	48	FL OZ/A	x		59	2.3	27.4	1391
3	BLOCKER	48	FL OZ/A		x	63	2.6	32.1	1487
4	BLOCKER	48	FL OZ/A	x		63	2.5	31.4	1421
	TOPSIN M	8	OZ WT/A						
5	RONILAN	12	OZ/A	x		77	2.5	37.9	1576
6	RONILAN	12	OZ/A		x	66	2.0	27.1	1664
7	ENDURA	5.8	OZ/A	x		58	2.0	23.6	1593
8	ENDURA	5.8	OZ/A		x	44	1.9	16.6	1695
9	JAU6476	5	FL OZ/A	x		55	2.3	25.7	1745
	INDUCE	0.125	% V/V						
10	JAU6476	5	FL OZ/A		x	49	2.2	21.1	1753
	INDUCE	0.125	5 V/V						
11	JAU6476	5.7	FL OZ/A	x		57	2.1	24.0	1720
	INDUCE	0.125	% V/V						
12	JAU6476	5.7	FL OZ/A		x	47	1.9	18.3	1660
	INDUCE	0.125	% V/V						
13	ROVRAL	14.4	FL OZ/A	x		64	2.4	30.0	1540
	COC**	1	% V/V						
14	ROVRAL	14.4	FL OZ/A		x	57	2.3	26.4	1466
	COC	1	% V/V						
15	TOPSIN M	16	OZ WT/A	x		75	2.2	32.9	1581
16	TOPSIN M	16	OZ WT/A		x	65	2.4	31.1	1527
17	TD2193-07	20	FL OZ/A	x		63	2.4	30.2	1476
18	TD2193-07	20	FL OZ/A		x	65	2.1	27.8	1525
19	V-10114	19	FL OZ/A	x		69	3.1	42.3	1745
20	V-10116	9.5	FL OZ/A	x		59	2.3	26.8	1756
21	V-10116	9.5	FL OZ/A		x	58	2.5	28.5	1777
*Plant disease severity: 0=no symptoms and 5=plant completely affected and low yield potential.									
**COC = HI-PER-OIL (Agrilience).									
mean						61	2.3	28.3	1596
C.V. %						17	12	20	13
LSD 5%						15	0.4	8.1	NS

Table 2. Pearson correlation coefficients with disease and seed yield.					
	Sclerotinia				
	Incidence	Severity	Plot severity		
	%	0-5			
Yield	-0.26	-0.18	-0.28		
P-value	0.02	0.11	0.01		

'Hyola 357 Magnum' canola was planted May 15 at 14 PLS/ft² at the Carrington Research Extension Center. Established canola density ranged from 8 to 13 plants/ft². Previous crop was sunflower heavily-infected with sclerotinia head rot. Experimental design was a RCB with 4 replications. Plot size was 5 x 25 ft and a canola border separated each plot. Fungicides were applied at 30 to 40% or 50 to 60% bloom with a CO₂ pressurized hand-boom sprayer with 8002 twin-jet nozzles, 20-inch spacing, 40 PSI and 18 GPA. Approximately 1.7 million ascospores were applied/plot with the CO₂ pressurized hand-boom sprayer at 40 PSI and 18 GPA on July 7 to canola at 50-70% flower. The misting system applied water 2 minutes/30-minute periods continuously starting on July 7 and concluding prior to swathing with the objective of keeping the foliage wet for sclerotinia infection and development. Plant disease incidence and severity were visually evaluated on August 12 by examining 50 plants/plot. The trial was swathed on August 18 and machine-harvested on August 25.

Disease incidence was less than the untreated check with the 50 to 60% bloom application of Endura and JAU6476 (Table 1). Plot severity generally was less than the untreated check with Endura and JAU6476. Generally, trends of decreased sclerotinia and increased seed yield occurred with delayed fungicide application. Disease and yield were negatively correlated (Table 2).