

Field pea response to fungicide application strategies for sclerotinia control. Blaine G. Schatz and Ezra Z. Aberle. (Carrington Research Extension Center, North Dakota State University, Carrington, ND 58421) A field trial was conducted to evaluate the efficacy of selected fungicides and application timing for the control of sclerotinia in field pea. The experimental design was a randomized complete block design with five replicates. The trial was conducted on a conventional-tilled, loam soil with 7.2 pH and 2.4% organic matter at Carrington, ND in 2002. Previous crop history was canola that had been infected with sclerotinia. 'Majoret' field pea was seeded on May 24 at the rate of 300,000 PLS/acre. Fungicide treatments were applied to the center 6.7 ft of 10 by 15-ft plots with a CO₂ pressurized hand-held plot sprayer delivering 18 gal/A at 35 psi through 8002 TwinJet nozzles. Application dates were July 11, July 16, and July 19 for the 10%, 40%, and 100% bloom timings respectively.

The field trial was modified from the original protocol due to an inability to access suitable no-till ground that had a history of sclerotinia infection. Five fungicides were selected for evaluation based on identified potential to control sclerotinia. Fungicides evaluated and product application rates were; Ronilan at 12 oz/A, Topsin at 16 oz/A, Quadris at 9.2 fl oz/A, Headline at 8 fl oz/A, and AMS 21619 at 6 fl oz/A. Early season rainfall was 57% of average and was likely the primary factor which resulted in very limited sclerotinia infection. Field pea seed yields and seed traits were not significantly influenced by the treatments imposed. The lack of yield response was anticipated due to the absence of both sclerotinia and foliar diseases. Protocol modifications have been determined for the 2003 trial which will improve our ability to evaluate fungicide application strategies for sclerotinia management.

Treatment Code	Fungicide	Application Timing	Seed Protein %	Seeds/Pound	1000 KWT gms	Test Weight lbs/bu	Seed Yield bu/ac
1	Control	NA	24.2	2006	227	65.0	47.4
2	Ronilan	10% Bloom	24.1	1969	231	64.9	51.5
3	Ronilan	40% Bloom	24.2	1956	232	65.3	50.3
4	Ronilan	10%+40% Bloom	24.4	1988	229	64.8	51.2
5	Topsin	10% Bloom	24.0	1947	234	65.3	53.1
6	Topsin	40% Bloom	23.9	1943	234	65.2	46.4
7	Topsin	10%+40% Bloom	24.8	1906	239	65.3	47.3
8	Quadris	10% Bloom	24.9	2008	227	65.1	49.3
9	Quadris	40% Bloom	24.5	2012	226	65.1	47.7
10	Quadris	10%+40% Bloom	23.5	1919	237	65.3	48.3
11	Control	NA	24.9	2076	220	64.9	46.5
12	Headline	10% Bloom	25.1	1951	233	65.0	51.2
13	Headline	40% Bloom	24.9	1938	235	65.3	54.2
14	Headline	10%+40% Bloom	24.7	2029	225	65.0	53.0
15	AMS 21619	10% Bloom	25.1	2030	225	64.7	46.1
16	AMS 21619	40% Bloom	24.6	1983	232	64.8	48.1
17	AMS 21619	10%+40% Bloom	24.2	1899	239	65.5	51.1
18	Ronilan	100% Bloom	24.3	1953	233	65.4	52.8
19	Topsin	100% Bloom	24.3	1988	229	65.0	50.6
20	Quadris	100% Bloom	25.3	2019	226	65.1	50.0
Means			24.5	1976	231	65.1	49.7
C.V. %			4.4	6.2	5.9	0.7	9.7
LSD.05			NS	NS	NS	NS	NS
LSD.01			NS	NS	NS	NS	NS
# Replicates			3	5	5	5	5