Atlantic Grain Council (AGC)

Field Strip Trial Research for Nova Scotia

2015 AGC-NS Soybean Fungicide Trial

Summary: The objective of this fungicide trial was to assess whether there was a soybean yield response to using Priaxor. Trial sites were selected from growers who had experienced white mold (sclerotinia) problems in these fields with prior soybean crops. These trial sites were planted on May 10th (Scott field) and May 20th (Baker field) and both partially sprayed with Priaxor on July 30th. The custom sprayer applicator used flat fan nozzles and 20 gallons per acre water volume at 40 psi pressure. The Scott field on July 30th had about 22 inch height and a thick growth canopy at the R5 development stage where pods at the bottom of the plant were starting to show seeds. The Baker field on July 30th had about 16 inch growth height, and was not yet achieving full row closure due to too dry soil conditions at the R2 early flowering stage. Plant pathologist Dr. Paul Hildebrand was asked to visually rate these two trial fields on August 31st. He found very low levels of white mold (sclerotinia) and septoria-brown leaf spot at these two field sites, and didn't see any difference in these low level amounts in either the Priaxor treated & non-fungicide treatment areas. Very good harvest yields at the Scott field site showed no differences between the Priaxor treated & non-fungicide areas. At the Baker field there wasn't a significant statistical yield difference between the two treatments; however there did seem to be a positive response to using Priaxor, although yields in this field were compromised by inadequate soil moisture in July and early August. This trial needs to be repeated in subsequent years to get a better assessment of soybean yield response to a fungicide treatment. Future field strip fungicide trials should have 3-4 reps per trial site and not the 2 replicates this trial had.

Many thanks to the Atlantic Grains Council grower levy research fund, and federal and Nova Scotia funding contributions through Growing Forward 2. Thanks to BASF & local rep Blair Fraser for donating the Priaxor fungicide for this trial. Thanks also to the two participating Nova Scotia soybean growers and the statistical analysis done by Melanie Leclerc at Perennia.

Funding provided by:

Table1: Comparison of Priaxor Fungicide versus No Fungicide Treatment on Soybeans

Site	Treatment	Test weight (kg/HL)	Moisture % at harvest	Yield at 14% moisture (kg/ha)
Baker, Glenmont	No fungicide	75.8 a	14.0 b	1635 b
Baker	Priaxor	74.8 a	14.1 b	2412 b
Scott, Canning	No fungicide	75.0 a	15.2 a	3913 a
Scott	Priaxor	75.5 a	15.2 a	3955 a

Means followed by the same letters are not significantly different at α = 0.05

Grower	2014 Crop	2015 Soybean Variety	Planting Date	Fertilizer Used	Fungicide Date & Crop Stage
Kevin & Sonia Baker	Soybean	Syngenta S08-U4 (2750 CHU)	May 20 @ 200,000 seeds	5-31-19 + 0.3% B at 200 lbs/ac	July 30th crop at R2 (early flower)
Fred & Duane Scott	Oats	Pride PS 0242 R2 (2600 CHU)	May 10 @ 195,000 seeds	No fertilizer (high fertility site)	July 30th crop at R5 (seeds starting in pods)