

Report on Barley Workers Site Visit to CIMMYT (Aug. 30-31, 2002)

Participants:

Dr. Kevin Smith	Barley breeder – University of Minnesota
Dr. Brian Steffenson	Small grains pathologist – University of Minnesota
Dr. Jerry Franckowiak	Barley breeder – North Dakota State University
Dr. Rich Horsley	Barley breeder – North Dakota State University
Dr. Les Wright	Dir. International Research – Busch Agricultural Resources
Mr. Jim Broten	Chair – North Dakota Barley Council

Objectives of Visit:

1. To learn firsthand about the ICARDA/CIMMYT research effort on breeding for Fusarium head blight (FHB) resistance in barley.
2. To develop a plan to better coordinate research efforts between U.S. barley and ICARDA/CIMMYT researchers working on FHB resistance.

Outcomes of the Visit:

Our group met with Drs. Flavio Cappelini (ICARDA barley breeder) and Lucy Gilchrist (CIMMYT small grains pathologist) on August 30 and 31. On August 30 we visited the CIMMYT FHB nursery at Toluca, Mexico. We were shown how the ICARDA/CIMMYT researchers manage their nursery, including inoculation and disease assessment. Also shown to the group were the ICARDA/CIMMYT lines with the highest levels of FHB resistance. At the end of the day, we discussed a plan to better coordinate research efforts between the US and ICARDA/CIMMYT barley research programs.

Areas of cooperation proposed were:

1. Inclusion of up to eight ICARDA/CIMMYT barley lines in the uniform FHB barley screening nursery (i.e. North American Barley Scab Evaluation Nursery). CIMMYT would also grow the nursery at Toluca each summer.
2. Inclusion of 150 ICARDA/CIMMYT barley lines in our China FHB nursery at Zhejiang University in Hangzhou, China.
3. Evaluation of up to 300 ICARDA/CIMMYT barley lines at Osnabrock, ND and Crookston, MN each summer in mist-irrigated – inoculated nurseries. Data on FHB resistance would be collected by Drs. Smith's and Horsley's groups and sent to Dr. Cappelini so he can determine which entries should be harvested for DON determination. DON content will be measured at North Dakota State University.

Our group and Drs. Cappelini and Gilchrist met with Dr. Rajaram on the morning of Aug. 31 to discuss our proposed cooperative efforts. It was agreed upon that we would proceed with these efforts and that CIMMYT would submit a proposal specifically for barley to the U.S Wheat and Barley Scab Initiative. In previous years, a joint proposal covering wheat, durum wheat, and barley had been submitted to the Initiative.