

## Stem Eyespot Research Key to Better Fescue Yields

By: Ken Nickel

Several farmer groups in the Peace are putting their money into fighting a common enemy that steals part of their creeping red fescue crop each year. The BC Branch of the Canadian Seed Growers' Association, the BC Grain Producers' Association and the Peace Region Forage Seed Association, with matching funds from BC's Peace River Agriculture Development Fund, put together a 3-year research project to develop stem eye-spot resistance in fescue.

Creeping red fescue seed production is a big part of the agricultural scene in the Peace Region. Each year farmers in the Peace produce over 25 million pounds of this grass seed, mostly for the lawn seed market in the United States. One of the biggest problems in producing fescue seed, however, is managing around stem eyespot. This disease has the potential to drop seed yields by as much as 50% in a badly infected field.

Stem eyespot is a disease of the flowering culm, or stem, that chokes off the head prior to filling. The result is a head with many "blanks" or "empties" instead of seed. In addition, stem eyespot can shorten the productive life of a stand and limit the effectiveness of rejuvenation as a management tool. When weather conditions and the stage of crop development mesh perfectly even a newly seeded crop on land without a history of fescue production can suffer serious yield losses. The total cost of this disease is not known but it certainly causes yield losses worth millions of dollars in some years.

Research into stem eyespot resistance in creeping red fescue began several years ago at the University of British Columbia. Dr. Brian Holl has shepherded this research project through field selection, petri dish, growth room and field nursery stages and has made considerable progress toward improving stem eyespot resistance in fescue. The current three year project is taking the results of this work into the field in the Peace region where the real testing will occur.

The current project began in 1998 with the establishment of a testing site at Baldonnel, the heart of the grass seed production area of BC. The highlight of the 1998 test season was the seeding of the first "synthetic" fescue line being tested for both performance and disease resistance. A stem eyespot nursery was also established at the Baldonnel site while work continued at UBC on future lines for seeding in the 1999 and 2000 trials.

If the objectives of this project are met, grass seed producers in the Peace will soon have stem eyespot resistance in creeping red fescue varieties suited to the area. This would help take some of the "bust" out of the traditional "boom or bust" fescue seed production in the Peace. This would also help us to remain competitive in the world grass seed market.

# Stem Eyespot Resistance in Creeping Red Fescue

## Final Report for Year 1 of 3 Year Project

The 1998/99 Action Plan described in the PRAD application was followed closely and most of the objectives were met. Several of the activities had to be postponed to 1999 but there was no serious loss of project momentum because of this. One highlight was that the first synthetic line from the program was seeded in variety evaluation trials at the Baldonnel test site.

The budget for year 1 was exceeded by approximately \$1,000 (attached) which came out of the Association's funds. Future budgets will be adjusted to keep the total project within budget over the 3 year period. This was not perceived to be a concern by the Association as the adjustments can be made quite easily.

A news release has been prepared and submitted to the Northern Horizon for printing in April (attached). It will also be made available to the local papers listed in your acceptance letter.

The Peace Region Forage Seed Association is pleased with the progress made to date on this project. We request that you accept this final report and release all funding approved for Year 1 of the project. We also request you approve funding for Year 2 of the project under the same terms and conditions.

Sincerely,



Ed Hadland, Director  
Peace Region Forage Seed Association