

Breeding Winter Wheat for Western Canada: Opportunities and Challenges

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Western Canada is known for production of hard red spring wheat and amber durum wheat. Only 5% of the wheat acreage in this region is winter wheat. Harsh winters, variable snow cover, unpredictable weather patterns, and specialized production practices have often resulted in inconsistent production of winter wheat in western Canada. Despite the challenges, winter wheat production has a number of advantages over spring wheat. Winter wheat produces 25-40% higher yield than hard red spring wheat, makes better use of spring moisture, competes better with annual weeds, provides habitat for migrating birds, reduces erosion, and reduces fuel costs. Cultivar development has been a key factor in improving the viability of winter wheat production in western Canada. Improvements in leaf and stem rust resistance, Fusarium head blight resistance, agronomic performance, and production practices have contributed to the increased potential for winter wheat production. This presentation will focus on breeding successes for winter wheat, and discuss the opportunities and challenges to increasing winter wheat production in western Canada.