# **Assessment of Soilborne Disease Pressure in Glyphosate Tolerant Wheat Production. (C03-baley125717-Poster)**

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## Abstract:

Glyphosate tolerant wheat will permit 'in crop' weed control while maintaining the intrinsic environmental and economic benefits associated with no-till crop production. However potential yield gains may be lost due to increased activity of soilborne pathogens on dying weeds within a glyphosate tolerant wheat crop. The objective of this study is to proactively determine the risks of incorporating glyphosate tolerant wheat into no-till production systems. Near isogenic lines (NILs), with and without glyphosate tolerance, of two cultivars were evaluated under no-till conditions in three agroclimatic zones in Eastern Washington. A mixture of spring barley and sterilized oat seed inoculated with Rhizcotonia solani/oryzae or Gaeumannomyces graminis var. tritici were direct seeded into the field plots prior to planting the NILs to simulate greenbridge volunteer. A no greenbridge control also was included. NILs from three treatments (RoundUp, Buctril/HarmonyGT, and a no spray control) were evaluated for disease severity as well as agronomic performance. Roots were digitally scanned and analyzed using WinRhizo software to assess morphological changes associated within treatments.

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