Seed Micronutrient Contents of a Historical Collection of Hard Red Winter Wheats. (C01-garvin161356-Poster)

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Abstract:

Wheat (Triticum aestivum L.) products are an important component of human diets. It is known that many human diets are deficient in some essential micronutrients, including the micronutrient iron. Further, evidence is increasing to support an anticarcinogenic role for the essential micronutrient selenium. This study sought to determine whether differences in seed-iron and seed-selenium content, as well differences in other essential mineral elements, exist within hard red winter wheat germplasm. The genotypes sampled represent a historical collection of hard red winter wheat germplasm grown during the past century. The grain that was analyzed came from a previous field study that examined changes in agronomic characteristics in these same genotypes. The results of this analysis will be presented as they relate to genotypic variation for seed micronutrient content, changes in micronutrient content associated with breeding advances within the hard red winter wheat germplasm pool, correlated changes between different seed micronutrients, and the relationship between seed micronutrient content and the content of certain macronutrients, particularly those associated with iron sequestration in the grain.

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