Genotypic and environmental variation for bread and noodle quality in spring wheat. (C01-souza123311-Oral)

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Abstract:

Improved marketing for hard white wheat is dependent on the flour characteristics that bread and noodle quality and the genetic and environmental factors that influence the flour. We grew seven spring wheat cultivars in four environments in Idaho and Montana in 1998, 1999, and 2000, using both irrigated and rain-fed production and different soil nitrogen levels to measure the factors influencing bread and Asian noodle quality and the interrelationship among the quality measures. Genotype was a significant factor for all quality measures, except initial alkaline noodle brightness, which was more determined by environment and soil fertility. For all quality traits, genotype, location, or nitrogen soil fertility treatment were more important sources of variation than genotype x location or genotype x fertility treatments. This suggests that most bread and noodle quality factors may be selected with limited numbers of locations.

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