Alien Cytoplasmic Effects on Test Weight of Soft Red Winter Wheat. (A00-mayta102305-Oral)

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Abstract:

The effect of Triticum turgidum cytoplasm on three cultivars of soft red winter wheat (Triticum aestivum) was studied relative to test weight and other agronomic traits such as heading date, awn presence, color, and leaf rust resistance. Twelve alloplasmic and euplasmic populations were obtained through a backcrossing procedure. The study was conducted on the F4 generation. The data for the agronomic traits were taken by field observation. A micro test weight procedure was used to compare populations for bushel weights. A golden color at harvest and late heading date were observed on the alloplasmic lines derived from Pioneer 2684 and the Wakefield cultivars. The third cultivar, Jackson, showed no interaction of this type. Another important characteristic was the predominance of awned plants in the alloplasmic lines. The disease assessment for leaf rust showed high resistance in the lines with a late heading date. The plots were harvested on June 27 and the data for test weight and grain will be presented.

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