Wheat Germplasm with Recombined Lr19 and Bdv2 Genes from Two Thinopyrum Chromosome Segments (T7DS.7DL-7Ag) (C01-mujeebkazi150505-Poster)

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Abstract:

Wheat chromosome 7D in the Lr19 genetic stock has an alien segment from Thinopyrum elongatum that is linked with a gene that causes the undesirable yellow flour pigmentation. The alien segment increases wheat grain yield by 10% in our preliminary tests. Another genetic stock; TC14, possesses an alien segment from Th. intermedium also on chromosome 7D that relates to barley yellow dwarf resistance and designated Bdv2. By intercrossing these two stocks we have facilitated recombination between the two alien segments on chromosome 7D. Derivatives have been identified that possess Lr19, Bdv2 and white flour with or without the gwm37 molecular marker. The recombined translocation derivatives could be useful for transferring the Bdv2 gene using leaf rust resistance as a marker, or vice-versa by using the gwm37 molecular marker.

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