Molecular markers linked to the H25 gene for Hessian Fly resistance in wheat. (C07-souza135330-Poster)

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Abstract:

The resistance gene H25 confers resistance in wheat (Triticum aestivum L.) to a wide diversity of Hessian fly (Mayteola destructor Say) biotypes, providing an economic control for this destructive pest. We evaluated spring wheat breeding lines in a series of selection experiments to identify microsatellite markers linked to the H25 gene in the germplasm WGRC20. We identified the marker Xgwm397 on the 4AL chromosome arm as linked to the H25 gene in two spring wheat populations. We observed some recombination between the H25 allele and the dominant 142 bp Xgwm397 fragment present in the WGRC20 germplasm, suggesting that the Xgwm397 marker is not carried on the interstitial rye fragment carrying the H25 gene. Rather the marker is likely located on flanking wheat chromatin.

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Presentation Information:

Presentation Date: Tuesday, November 12, 2002 Presentation Time: 4:00-6:00 pm Poster Board Number: 1302L

Keywords:

Wheat, Host-plant resistance, Hessian fly, Marker assisted selection