

Mapping Fusarium Head Blight QTL in Chinese wheat line Fujian 5114. (C01-bowen074344-Poster)

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Abstract:

Many Chinese wheat lines have been introduced into wheat breeding programs because of their resistance to Fusarium head blight (FHB). It is anticipated that these lines will provide diversity for resistance genes. Sumai 3, a popular resistance source from China, has been well characterized for FHB resistance QTL. Fujian 5114, a Chinese wheat derived from the cross Longxi18/Ning8017, has resistance to FHB spread (Type II) as good as Sumai 3, and appears to differ from Sumai 3 in some resistance loci. Seventy-eight RIL from the cross Fujian 5114/Norm were evaluated for FHB severity in three field and two greenhouse experiments. QTL analysis with microsatellite markers revealed major FHB QTL's on 3BS and 5BL, jointly explaining 40% of the variation of FHB. Additional resistance loci with minor effects were identified, putatively mapping to chromosomes 1BS, 2AS and 5AL.

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