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Genetic biodiversity for stripe and stem rust resistance in African wheat genotypes.

Lesley A. Boyd, Renee Prins, Zakkie A. Pretorius, and Ruth MacCormack.

A new program involves the genetic and phenotypic characterization of a large collection of African wheat genotypes for resistance to the new virulent stem rust *P. graminis* race Ug99. Stem rust resistance will be assessed in field trials in Kenya. The collection also will be assessed for resistance to stripe or yellow rust *P. striiformis* f.sp. *tritici* races in South Africa and the UK. DNA markers will be developed for useful sources of rust resistance and used as tools to determine the extent of biodiversity between the wheat genotypes. This program is a collaboration between Dr. L.A. Boyd at the JIC, UK, and Prof. Z.A. Pretorius and Dr. R. Prins at the University of the Free State, Bloemfontein, South Africa.

Publications.

- Hysing SC, Hsam SLK, Singh RP, Huerta-Espino J, Boyd LA, Koebner RMD, Cambron S, Johnson JW, Bland DE, and Merker A. 2007. Agronomic performance and multiple disease resistance in T2BS·2RL wheat-rye translocation lines. *Crop Sci* 47:254-260.
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