

**MOLECULAR CHARACTERISATION AND ASSESSMENT OF THE RESISTANCE TO THE RENIFORM NEMATODE OF AN INTERSPECIFIC HYBRID INVOLVING *GOSSYPIUM HIRSUTUM* AND *G. LONGICALYX***  
**N.O. Konan, J-P Baudoin, and G. Mergeai**  
**Faculté universitaire des Sciences agronomiques de Gembloux**  
**Gembloux, Belgium**

**Abstract**

Two hundred and three mapped micro-satellites markers evenly distributed on the 26 chromosomes of *G. hirsutum* L. were used to monitor the introgression of DNA fragments coming from the Australian species *G. sturtianum* Willis in a population of BC<sub>1</sub>, BC<sub>2</sub>, BC<sub>2</sub>S<sub>1</sub>, BC<sub>2</sub>S<sub>2</sub>, BC<sub>2</sub>S<sub>3</sub>, B<sub>2</sub>S<sub>4</sub>, BC<sub>2</sub>S<sub>5</sub>, BC<sub>1</sub>/BC<sub>2</sub>S<sub>2</sub>, S<sub>1</sub>/BC<sub>1</sub>/BC<sub>2</sub>S<sub>2</sub>, BC<sub>3</sub>, BC<sub>3</sub>S<sub>1</sub>, BC<sub>3</sub>S<sub>2</sub> and BC<sub>3</sub>S<sub>3</sub> backcross derivatives obtained from the *G. hirsutum* x *G. raimondii* Ulb. x *G. sturtianum* (HRS) trispecific hybrid. A single marker analysis carried out in this population permitted to associate six *G. sturtianum* microsatellites to putative QTLs controlling the low gossypol-seed and high-gossypol plant trait. These microsatellites are located on chromosomes c02, c13 and c12. They constitute very useful tools to assist the selection of commercial cotton varieties showing a drastic inhibition of the gossypol synthesis in the seed while presenting a normal content of terpenoids in their aerial parts.