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RECOMBINATION AND SOMATIC ELIMINATION OF A *GOSSYPIUM AUSTRALE* CHROMOSOME IN *G. HIRSUTUM*

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Abstract

The selfed progeny of a monosomic alien addition line on Gossypium hirsutum carrying a single chromosome of G. australe was screened using five mapped SSRs distributed on the whole length of c06 and c25 *G. hirsutum* homeologous chromosomes. The data obtained from this molecular characterisation associated with phenotypic observations lead to the identification of five groups of genotypes : (i) 45 non introgressed euploids, (ii) 35 monosomic addition plants, (iii) 4 disomic addition plants, (iv) 3 plants presenting signs of somatic elimination of the alien supernumerary chromosome and (v) 1 plant showing signs of somatic elimination or recombination of the additional alien chromosome. These data are coherent with previous cytological and phenotypic observations made on different monosomic addition lines of G. sturtianum on G. hirsutum.