

ISOLATION OF DROUGHT RESISTANT UPLAND COTTON (*GOSSYPIUM HIRSUTUM*) HYBRIDS THROUGH ECONOMIC HETEROSIS

A. R. Soomro, B. A. Ansari, S. Memon and R. Panhwar

Department of Plant Breeding and Genetics, Sindh Agriculture University, Tandojam, Pakistan.

ABSTRACT

In order to isolate drought resistant cotton hybrids through economic heterosis, a field experiment was conducted at Seri Farm, 10 kilometers in the south of Hyderabad, during 2007 and 2008. Six parents and 15 F₁ hybrids were planted under well watered and water stressed treatments to assess their drought resistant. Results revealed that statistically there was highly significant differences among the parents and hybrids. Compared to well watered treatment, parents grown in water stressed treatment produced 42% lower seedcotton yield plant⁻¹. Similarly hybrids grown in water stressed treatment gave 37% lower yield than the hybrids grown well watered treatment. Among 15 hybrids tested, three (CRIS-342 x CRIS-121, CRIS-342 X alandri and CRIS-121 X NIAB-78) were isolated as drought resistant genotypes.

Keywords: F1 genotypes, parents, seedcotton yield, useful heterosis, water stress.