Identification of favourable alleles in the parents for the improvement of superior hybrids in cotton (*Gossypium hirsutum* L.).

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ABSTRACT

Forty five Cotton hybrids along with their parents were studied in three different locations (Regional Agricultural Research Station, Lam, Guntur, Agricultural Research Station, Jangamaheswarapuram and Agricultural Research Station, Darsi) in Andhra Praesh. The data on differeent parameters like seed cotton yield (g/plant), 2.5% span length (mm), lint index (g) and boll weight (g) were recorded in each location and were averaged and were used for calculating the different parameters of the model. Identification of unique favourable alleles in the donor parents analysis revealed that for improving NDLH 1938 × RAH 1004 hybrid for 2.5 % span length, the donor parent SURABHI and for lint index L 788 and NA 1325 were showed significant positive μG' estimates. Whereas, for boll weight, three parents, viz L 788, L 770 and L 604, showed the significant positive μG' estimates in combined analysis. Only one parent i.e., G COT 16, showed the significant positive μG' estimates in combined analysis for boll weight for improving NDLH 1938 × L 770 hybrid.

Keywords: *Cotton, favourable allleles*