

Hybrid Breeding in Grain Legumes - a Success Story of Pigeonpea*

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ABSTRACT

The quantum of yield advances made through breeding is much greater in cereals than those of legumes; and this difference may be attributed to the successful commercial exploitation of hybrid vigor in the former. Although floral biology of some of the legumes permit limited out-crossing hybrid vigor for yield has not been exploited for commercial use in any other legume with the exception of pigeonpea,. Recently, hybrid pigeonpea breeding technology based on cytoplasmic- nuclear male-sterility system was successfully developed by ICRISAT and other partners in India. Some of the promising hybrids such as ICPH 2671, ICPH 2740, and GTH 1 have recorded 30 - 40% yield advantage over the best local varieties. This paper discusses the challenges, achievements, and prospects for hybrids in enhancing productivity of pigeonpea.

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