

Kinds produced in  
both self pollinated  
and



**ASSIGN  
BUSTER**

Kinds of hybrids: 1. Single cross hybrids crossing two inbreds or purelines, A x B. 2.

Three way cross hybrid. A cross between a single cross hybrid and an inbred (A x B) x C. 3. Double cross hybrid. Double cross involving the four inbreds A, B, C and D. 4. Double top cross hybrid. Double cross hybrids cross with open pollinated variety.

Development of inbreds: 1. By inbreeding, selfing etc. 2. Development of inbreds from haploids. Evaluation of inbreds: 1. Phenotypic evaluation. Based on phenotypic performance.

Highly suitable for characters with high heritability. 2. Top cross test. The selected inbreds will be crossed to a tester parent with wide genetic base. The cross progenies will be evaluated in replicated progeny rows. 3.

Single cross evaluation. The developed inbreds can be crossed and the single crosses can be estimated in replicated trial standing hybrids tested over years in different locations, then released. Production of hybrid seed: Methods: 1. Hand emasculation and dusting-cotton, tomato. 2. Use of male sterile lines (a) Cytoplasmic male sterility - ornamentals. (b) Genic male sterility - redgram, castor.

(c) Cytoplasmic genic male sterility - jowar, bajra, rice. 3. Use of self incompatibility. Merits: i. Hybrids from single cross varieties are more uniform than open pollinated varieties, synthetic and composite varieties. ii. Hybrids produced in both self pollinated and cross pollinated crops. iii.

It exploits both self combining ability and general combining ability.

Demerits: i. Seeds are to be changed every year. ii. Needs technical skill. iii.

In cross pollination crops require long isolation distance.