

**UJI PENDAHULUAN DAYA HASIL DAN KUALITAS BEBERAPA
GENOTIPE HIBRIDA SILANG GANDA (*DOUBLE CROSS*)
JAGUNG MANIS (*Zea maysaccharata* Strurt)**

Oleh: Firsty Liliandita
Dibimbing oleh: Bambang Supriyanta dan Lagiman

ABSTRAK

Pemuliaan jagung manis secara umum bertujuan untuk mendapatkan varietas yang mempunyai kuantitas dan kualitas hasil tinggi. Penelitian ini bertujuan untuk mengetahui potensi hasil beberapa hibrida silang ganda jagung manis yang di uji dengan varietas pembanding. Penelitian ini menggunakan rancangan acak kelompok lengkap (RAKL) yang terdiri dari satu faktor dengan 3 blok. Perlakuan terdiri atas 6 hibrida silang ganda, yaitu Bonanza x Kingsweet, Talenta x Bonanza, Talenta x Orholili, Kingsweet x Talenta, Orholili x Bonanza, Bonanza x Talenta dan digunakan jagung manis silang tunggal sebagai pembanding, yaitu Bonanza, Talenta, Kingsweet, Orholili. Masing-masing unit percobaan terdiri dari 20 tanaman. Apabila terdapat pengaruh yang nyata maka dilanjutkan menggunakan Uji *Scott-Knott* 5%. Variabel yang digunakan, yaitu pertumbuhan, hasil, dan kualitas. Hasil penelitian menunjukkan bahwa hibrida silang ganda yang berpotensi hasil tinggi adalah Talenta x Orholili, Kingsweet x Talenta, dan Orholili x Bonanza karena memiliki potensi hasil yang ideal dan hampir setara dari silang tunggalnya. Nilai heritabilitas tinggi tanaman, letak tongkol, umur muncul bunga jantan, umur muncul bunga betina, diameter tongkol, panjang tongkol, dan tingkat kemanisan termasuk tinggi. Nilai heritabilitas diameter batang dan bobot tongkol memiliki nilai heritabilitas sedang kemudian parameter jumlah daun, panjang daun, jumlah baris biji, dan rendemen memiliki nilai heritabilitas rendah.

Kata kunci: daya hasil, jagung manis, heritabilitas, keragaman genetik, silang ganda

**THE PRELIMINARY TRIALS OF YIELD POTENTIAL AND QUALITY ON
DOUBLE CROSS HYBRID GENOTYPES OF SWEET CORN
(*Zea mays saccharata* Strurt)**

By: Firsty Liliandita

Supervised by: Bambang Supriyanta and Lagiman

ABSTRACT

To increase high yields can be pursued through plant breeding programs. In general, sweet corn breeding aims to obtain varieties that have high yields of quantity and quality. This study aims to determine the yield potential of several sweet corn double cross hybrid genotypes which were tested with comparison varieties. This study is used randomized completely block design (RCBD) consisting of one factor with 3 blocks. The treatment consisted of 6 double cross hybrids, namely Bonanza x Kingsweet, Talenta x Bonanza, Talenta x Orholili, Kingsweet x Talenta, Orholili x Bonanza, Bonanza x Talenta and single-cross sweet corn was used as comparison, namely Bonanza, Talenta, Kingsweet, Orholili. Each experimental unit consisted of 20 plants. If there is a significant difference in effect, then continue using the 5% Scott-Knott test. The variables used are agronomy, yield, and quality. The results showed that the multiple cross hybrid with high yield potential was Talenta x Orholili, Kingsweet x Talenta, dan Orholili x Bonanza because it had an ideal yield potential and was almost equal to the single cross. The heritability values of plant height, corncobheight, age of male flower emergence, age of female flower emergence, corncob diameter, corncoblength, and sweetness level were high. Parameters of stem diameter and weight of cobs without shells had moderate heritability values, then the parameters of leaf number, leaf length, number of seed rows, and yield had low heritability values.

Keywords: coefficient of variation, double cross, heritability, sweet corn, yield trial