

## INTISARI

Jagung (*Zea mays* L.) dikenal luas sebagai tanaman pangan, pakan ternak, bahan utama industri, dan tanaman model untuk objek pembelajaran dan penelitian. Fungsi jagung terutama jagung 'Glass Gem' sebagai tanaman hias kurang dikenal masyarakat dan belum banyak informasi yang tersedia. Penelitian ini bertujuan untuk mengukur parameter genetik karakter agronomi jagung 'Glass Gem' generasi seleksi keempat dan mendapatkan perbandingan persentase jumlah biji berwarna hijau antara jagung 'Glass Gem' generasi seleksi ketiga dan generasi seleksi keempat. Penelitian disusun dalam Rancangan Acak Kelompok Lengkap (RAKL) dengan tiga blok sebagai ulangan. Perlakuan yang digunakan adalah 10 famili saudara tiri jagung 'Glass Gem' generasi seleksi ketiga. Hasil penelitian menunjukkan bahwa peubah panjang tongkol dan persentase biji berwarna hijau mempunyai heritabilitas rendah; heritabilitas peubah tinggi tanaman, jumlah biji per tongkol, dan bobot 1000 biji termasuk sedang; dan heritabilitas peubah umur berbunga jantan, umur berbunga betina, dan tinggi kedudukan tongkol termasuk kategori tinggi. Berdasarkan nilai penduga heritabilitas, kemajuan genetik persentase biji berwarna hijau pada generasi seleksi keempat bernilai negatif, kemudian diasumsikan bernilai nol. Nilai kemajuan genetik faktual pada generasi seleksi massa ketiga bernilai 9,55% pada peubah persentase biji berwarna hijau. Pengamatan persentase biji berwarna hijau antara jagung 'Glass Gem' generasi seleksi ketiga dan keempat menunjukkan kenaikan nilai persentase jumlah biji berwarna hijau pada enam famili jagung 'Glass Gem' generasi seleksi ketiga. Famili tersebut adalah B1F1I3(1), B3F5I8(2), B1F3I3(4), B1F3I14(5), B1F4I5(7), dan B1F7I8(10).

**Kata kunci :** biji berwarna hijau, heritabilitas, jagung 'Glass Gem', kemajuan genetik, seleksi tongkol-ke-baris.

## ABSTRACT

*Maize (*Zea mays* L.) is widely known as food crops, animal feed, industrial main ingredients, and model plants for learning and research objects. Maize function especially 'Glass Gem' maize as an ornamental plants are less well known to the public and not much information is available. The aim of this research is to measure the genetic parameters of fourth generation selection of Glass Gem' maize and get percentage comparison of the number of green kernel between the 'Glass Gem' maize the third and fourth generation selection. The research was arranged in a Complete Randomized Block Design (RCBD) with three blocks as replications. The treatments used were 10 selected families of third generation selection 'Glass Gem' maize. The results showed that the ear length and percentage of green kernel variable classified as low heritability; plant height, number of seeds per ear, and 1000 seed weight variable were included in moderate heritability; and days to anthesis, days to silking, and ear height variable classified as high heritability. Based on on heritability value in fourth generation selection, genetic advance value of the percentage of green kernel is negative, then its assumed to be zero. The factual genetic advance of mass selection in third generation is 9.55% on the percentage of green seed percentage. Based on the comparison of of green kernel percentage between the third and fourth generation 'Glass Gem' maize, there was an increase in six families of the third generation 'Glass Gem' maize. These families are B1F1I3(1), B3F5I8(2), B1F3I3(4), B1F3I14(5), B1F4I5(7), and B1F7I8(10).*

**Keywords :** 'Glass Gem' maize, ear-to-row selection, genetic advances, green kernel, heritability