

INTISARI

Kebutuhan jagung di Indonesia semakin meningkat, terutama bagi yang mementingkan pangan sehat dengan harga terjangkau. Jagung Amilopektin memiliki kandungan amilosa relatif rendah yang cocok bagi penderita penyakit diabetes namun produktivitasnya rendah, sedangkan jagung Antosianin memiliki kandungan antosianin dengan produktivitas yang tinggi. Keunggulan karakter yang dimiliki dari masing-masing varietas baik jagung Amilopektin maupun jagung Antosianin berpotensi untuk pengembangan lebih lanjut. Oleh karena itu, perlu dilakukan penelitian mengenai pewarisan karakter agronomi generasi F1 hasil persilangan resiprok pada tanaman jagung kaya amilopektin dan tinggi antosianin.

Metode penelitian yang digunakan adalah persilangan resiprok antara induk betina ♀ Amilopektin x ♂ Antosianin dan induk ♀ Antosianin x ♂ Amilopektin dengan rasio penanaman 3:1. Kemudian hasil pengamatan dianalisis menggunakan *Chi-square test* untuk karakter kualitatif, sedangkan untuk menghitung karakter kuantitatif menggunakan nilai heritabilitas dan dilakukan perhitungan indeks seleksi.

Pewarisan karakter agronomis generasi F1 tidak mengalami pola segregasi. Karakter jumlah baris biji, panjang tongkol, diameter tongkol, diameter janggal, indeks kelobot/biji, indeks rakhis/biji, indeks penutupan biji, jumlah baris/biji, panjang butir, lebar butir, dan tebal butir memiliki nilai heritabilitas yang tinggi. Didapatkan 5 individu terpilih dari 34 total populasi F1 ♀ Amilopektin x ♂ Antosianin dengan nilai indeks seleksi berkisar 10,7-11,87 dan resiproknya ♀ Antosianin x ♂ Amilopektin 6,93-8,86 pada karakter panjang tongkol, diameter tongkol dan jumlah baris biji.

Kata kunci: karakter kualitatif, karakter kuantitatif, segregasi, indeks seleksi

ABSTRACT

The requirement corn in Indonesia is increasing, especially for those who prioritize healthy food at affordable prices. Amilopektin corn has a relatively low amylose content which is suitable for diabetics but its production is low, while purple corn has anthocyanin content with high productivity. The superiority of characters possessed from each variety both Amilopektin corn and purple corn have the potential for further development. Therefore, it is necessary to conduct research on the inheritance of agronomic characters of F1 generation from reciprocal crossing in corn plants rich in amylopectin and high in anthocyanin.

The research method used is a single cross crossing between the female The research method used is reciprocal crossing between female parent Amylopectin x Anthocyanin and anthocyanin parent x Amylopectin with a planting ratio of 3: 1. Then the observations were analyzed using the Chi-square test for qualitative characters, whereas for calculating quantitative characters using heritability values and selection index calculations were performed

The Inheritance of the agronomic character of the F1 generation does not experience a pattern of segregation. The character of the number of rows of seeds, cob length, ear diameter, clover diameter, kelobot / seed index, rakhis / seed index, seed closing index, number of rows / seeds, grain length, grain width, and grain thickness have high heritability values. Obtained 5 selected individuals from 34 total population of F1 Amilopektin Purple with selection index values ranging from 10.7 to 11.87 and reciprocal Purple Amilopektin 6.93-8.86 on the characters of cob length, ear diameter and number of rows of seeds.

Keyword: *Qualitative character, quantitative character, segregation, selection index*