Pengaruh Pencucian Benih dengan Penambahan Fungisida Terhadap Tingkat Serangan Penyakit Bulai dan Pertumbuhan serta Hasil Jagung Hibrida Varietas P27

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ABSTRAK

Jagung merupakan tanaman pangan penting di dunia. Bulai sebagai penyakit utama jagung menyebabkan penurunan hasil panen. Penyakit bulai dapat dicegah dengan perlakuan benih. Tujuan penelitian adalah untuk mengetahui pengaruh pencucian dan penambahan fungisida pada benih terhadap serangan penyakit bulai, pertumbuhan, dan hasil jagung hibrida. Penelitian dilaksanakan di Kebun Percobaan Wedomartani, Ngemplak, Sleman pada bulan Juni – Oktober 2018. Metode yang digunakan adalah percobaan lapangan menggunakan Rancangan Acak Kelompok Lengkap (RAKL) satu faktor, dengan sepuluh perlakuan dan tiga ulangan. Perlakuan yang digunakan yaitu kontrol, benih dicuci, benih dicuci kemudian ditambahkan fungisida Prolaxyl 3g/kg + Demorf 2g/kg, benih dicuci kemudian ditambahkan fungisida Prolaxyl 3g/kg + Demorf 3g/kg, benih dicuci kemudian ditambahkan fungisida Prolaxyl 3g/kg + Demorf 4g/kg, benih dicuci kemudian ditambahkan fungisida Prolaxyl 3g/kg + Demorf 5g/kg, benih dicuci kemudian ditambahkan fungisida Prolaxyl 5g/kg + Demorf 2g/kg, benih dicuci kemudian ditambahkan fungisida Prolaxyl 5g/kg + Demorf 3g/kg, benih dicuci kemudian ditambahkan fungisida Prolaxyl 5g/kg + Demorf 4g/kg, benih dicuci kemudian ditambahkan fungisida Prolaxyl 5g/kg + Demorf 5g/kg. Hasil penelitian menunjukkan bahwa perlakuan T8 (Prolaxyl 5g/kg + Demorf 3g/kg) memiliki serangan penyakit bulai lebih rendah daripada T7 (Prolaxyl 5g/kg + Demorf 2g/kg), serta daya tumbuh yang lebih tinggi daripada T9 (Prolaxyl 5g/kg + Demorf 4g/kg). Perlakuan T7 (Prolaxyl 5g/kg + Demorf 2g/kg) memiliki diameter tongkol, tinggi tanaman, dan jumlah baris tiap tongkol yang lebih tinggi daripada T9 (Prolaxyl 5g/kg + Demorf 4g/kg).

Kata kunci: jagung, bulai, fungisida, perlakuan benih

The Effect of Seed Washing with Addition of Fungicide on The Level of Downy Mildew Attack and Growth along with Yield of Hybrid Corn P27 Variety

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ABSTRACT

Corn is an important food crop in the world. Downy mildew as a corn main disease causes a decrease of crop yields. Downy mildew can be prevented by seed treatment. The study aims to know the effect of washing and adding fungicides on seeds to downy mildew attack, growth, and hybrid corn yields. The research conducted in Wedomartani Experimental Field, Ngemplak, Sleman in June – October 2018. Field experiment in single factor with Randomized Complete Block Design (RCBD) was set up, with ten treatments and three replications. The treatments used are control, washed seeds, washed seeds then added fungicide Prolaxyl 3g/kg + Demorf 2g/kg, washed seeds then added fungicide Prolaxyl 3g/kg + Demorf 3g/kg, washed seeds then added fungicide Prolaxyl 3g/kg + Demorf 4g/kg, washed seeds then added fungicide Prolaxyl 3g/kg + Demorf 5g/kg, washed seeds then added fungicide Prolaxyl 5g/kg + Demorf 2g/kg, washed seeds then added fungicide Prolaxyl 5g/kg + Demorf 3g/kg, washed seeds then added fungicide Prolaxyl 5g/kg + Demorf 4g/kg, washed seeds then added fungicide Prolaxyl 5g/kg + Demorf 5g/kg. The results showed that T8 treatment (Prolaxyl 5g/kg + Demorf 3g/kg) has lower attack of downy mildew than T7 (Prolaxyl 5g/kg + Demorf 2g/kg), and higher seedling vigor than T9 (Prolaxyl 5g/kg + Demorf 4g/kg). T7 treatment (Prolaxyl 5g/kg + Demorf 2g/kg) has bigger corncob diameter, higher plant height, and more number of rows per corncob than T9 (Prolaxyl 5g/kg + Demorf 4g/kg).

Keywords: corn, downy mildew, fungicide, seed treatment