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PENGARUH DOSIS FUNGISIDA DAN PERIODE PENYIMPANAN TERHADAP VIABILITAS BENIH KAKAO (*Theobroma cacao* L.)

(The Effect of Fungicide Dosage and Storage Longevity on Seed Viability of Cacao (Theobroma cacao L.)

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ABSTRACT

The experiment of seed treatment and storage longevity on cacao seed valiability was conducted at Seed Science and Technology Laboratory, Departement of Agronomy, Faculty of Agriculture, Bogor Agriculture University since March to July 1995. The objectives of this experiment were to find out the optimim dosage of fungicide treatment ands strorability on cacao seed.

Split plot design was used in this experiment; main plot were storage periods. I.e. : 1, 3, 5, 7, and 9 weeks and sub plots were dosages of fungicide (active ingredient carbendazim + mankozeb) 0, 2, 4, 6, g/kg of seed with 3 replication. Each unit consisted of 40 seeds.

Result of the experiment indicated that control seed (without fungicide) were infected by fungi 90.67 % on the first week and its germination capacity was only 57.33 %. Fungi infection increased rapidly after 1 week and its caused the viability lost. Application of 2, 4, 6 g fungicide/kg of seeds inhibited fungi growth and that treatments maintained seed viability until 9 weeks of storage periods. There are no significant difference among fungicide dosage, except on index vigor; application of 4 and 6 g of fungicide result lower index vigor. Better fungicide dosage was 4.21 g/kg of seeds based on quadratic regression $Y=20.80 + 43.10\ X - 5.12\ X^2$ (Y = germination capacity, X = dosage fungicide). Dominant fungi infected on seed storage were identified as Fusarium sp and Aspergillus sp. The storability of cacao seed with fungicide treatments on 9 weeks of storage period were still relatively high, the germination capacity more than 80 % and the seeding vigor were not different among of all storage periods.

RINGKASAN

Penelitian perlakuan benih dengan fungisida dan penyimpanan benih kakao telah dilaksanakan di Laboratorium Ilmu dan Teknologi Benih, Jurusan Budidaya Pertanian, Fakultas Pertanian, Institut Pertanian Bogor sejak bulan Maret hingga Juli 1995. Tujuan penelitian ini adalah untuk mendapatkan dosis fungisida yang dapat diaplikasikan dalam penyimpanan benih dan mempelajari daya simpan benih kakao.

Penelitian menggunakan Rancangan Split-split Plot, petak utama adalah periode penyimpanan yaitu 1, 3, 5, 7, 9 minggu dan anak petak adalah dosis fungisida (berbahan aktif karbendazim + mankozeb) 0, 2, 4, 6 g/kr benih. Percobaan diulangi tiga kali dan dalam setiap unit digunakan 40 benih.

Hasil percobaan menunjukkan bahwa pada perlakuan kontrol (tanpa fungisida) serangan cendawan cukup tinggi pada penyimpanan 1 minggu yaitu 90.67 % dan daya berkecambahnya 57.33 %. Intensitas serangan cendawan sangat tinggi setelah penyimpanan setelah 1 minggu dan menyebabkan benih kehilangan

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