EFEKTIVITAS LARUTAN EKSTRAKSI ASAM KLORIDA DAN KAPUR TOHOR TERHADAP KUALITAS BENIH TOMAT (*Lycopersicum esculentum Mill.)*

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ABSTRAK

Biji tomat memiliki lendir yang mengandung zat inhibitor yang dapat berpengaruh terhadap penurunan kualitas benih, untuk menghilangkan lendir tersebut dari biji membutuhkan perlakuan ekstraksi. Tujuan dari penelitian ini untuk mendapatkan perlakuan ekstraksi yang efektif terhadap kualitas benih tomat. Penelitian dilakukan di Kebun Percobaan Fakultas Pertanian UPN "Veteran" Yogyakarta di Wedomartani, Ngemplak, Sleman, Yogyakarta pada bulan Februari sampai dengan bulan April 2020. Metode penelitian menggunakan Rancangan Acak Lengkap (RAL) dengan 13 perlakuan, yaitu fermentasi aquadest 24 jam (kontrol (L0)), asam klorida 1% lama perendaman 2 jam (L1), asam klorida 1% lama perendaman 3 jam (L2), asam korida 1% lama perendaman 4 jam (L3), asam klorida 2% lama perendaman 2 jam (L4), asam klorida 2% lama perendaman 3 jam (L5), asam klorida 2% lama perendaman 4 jam (L6), asam klorida 3% lama perendaman 2 jam (L7), asam klorida 3% lama perendaman 3 jam (L8), asam klorida 3% lama perendaman 4 jam (L9), larutan kapur tohor 10g/l lama perendaman 10 menit (L10), larutan kapur tohor 10g/l lama perendaman 20 menit (L11), dan larutan kapur tohor 10g/l lama perendaman 30 menit (L12). Hasil percobaan dianalisis keragamannya dengan *Analisis of Variance (*ANOVA) taraf 5%, untuk mengetahui perbedaan antar perlakuan diuji dengan DMRT (*Duncan Multiple Range Test)*. Hasil penelitian menunjukkan bahwa larutan ekstraksi paling efektif pada penggunaan asam klorida konsentrasi 1 % lama perendaman 2 jam.

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Kata kunci : efektivitas,kualitas, benih, tomat, dan ekstraksi.

EFFECTIVENESS OF EXTRACTION SOLUTION OF CHLORIDE ACID AND CALCIUM OXIDE ON SEED QUALITY OF TOMATO (*Lycopersicum esculentum* Mill.)

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ABSTRACT

Tomato seed has mucus which contains of inhibitor that affects to decrease seed quality. To remove it from the seed it needs extraction treatment. The goal of this research was to find the effective treatment for tomato seed quality. This research conducted in Experimental Garden UPN "Veteran" Yogyakarta, Wedomartani, Ngemplak, Sleman, Yogyakarta on February to April 2020. This research used one factor of Completly Randomize Design (CRD) with 13 treatments that are 24 hours fermentation with aquades (control) (L0), 1% chloride acid with 2 hours of soaking time (L1), 1% chloride acid with 3 hours (L2) of soaking time, 1% chloride acid 4 hours of soaking time (L3), 2% chloride acid with 2 hours soaking time (L4), 2% chloride acid with 3 hours of soaking time (L5), 2% chloride acid with 4 hours of soaking time (L6), 3% chlorid acid with 2 hours of soaking time (L7), 3% chloride acid with 3 hours of soaking time (L8), and 3% chloride acid with 4 hours of soaking time (L9), 10g/l calcium oxide with 10 minutes of soaking time (L10), 10g/l calcium oxide with 20 minutes of soaking time (L11), 10g/l calcium oxide with 30 minutes of soaking time (L12). Results of the experiment were analysed using Analysis of Variance, followed by further experiment 5% DMRT (Duncan's Multiple Range Test). The results showed that the effective extraction solution was 1% chloride acid with 2 hours immersion time.

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Keywords : effectiveness, quality, seed, tomato, and extraction.