

**PENGARUH KONSENTRASI DAN LAMA PERENDAMAN
BENIH DELIMA (*Punica granatum L.*) DENGAN KNO_3
TERHADAP PEMATAHAN DORMANSI,
VIABILITAS, DAN VIGOR**

SKRIPSI



**REDHA SARI
1610212018**

Dosen Pembimbing

Pembimbing I : Dr. Ir. Nalwida Rozen, MP

Pembimbing II : Prof. Dr. Ir. Aswaldi Anwar, MS

**FAKULTAS PERTANIAN
UNIVERSITAS ANDALAS
PADANG
2021**

PENGARUH KONSENTRASI DAN LAMA PERENDAMAN BENIH DELIMA (*Punica granatum L.*) DENGAN KNO_3 TERHADAP PEMATAHAN DORMANSI, VIABILITAS, DAN VIGOR

Abstrak

Penelitian ini bertujuan untuk mengetahui interaksi antara konsentrasi dan lama perendaman benih delima dalam larutan kalium nitrat (KNO_3) dan mengetahui konsentrasi KNO_3 dan lama perendaman benih terbaik terhadap pematangan dormansi, viabilitas, dan vigor. Penelitian ini dilakukan bulan Oktober 2020 sampai Januari 2021 di Laboratorium Teknologi Benih Fakultas Pertanian Universitas Andalas, Padang. Percobaan ini merupakan percobaan faktorial yang terdiri atas dua faktor yang disusun berdasarkan Rancangan Acak kelompok (RAK). Faktor pertama adalah konsentrasi kalium nitrat (KNO_3) yang terdiri atas 3 taraf yaitu konsentrasi 0,3%, 0,4%, dan 0,5%. Faktor kedua yaitu lama perendaman yang terdiri dari 3 taraf yaitu lama perendaman 6 jam, 10 jam, dan 14 jam. Data hasil pengamatan dianalisis dengan uji F pada taraf 5% dan uji lanjut *Duncan's New Multiple Range Test* (DNMRT) pada taraf nyata 5%. Hasil penelitian menunjukkan terdapat interaksi antara konsentrasi dan lama perendaman benih delima dengan KNO_3 terhadap potensi tumbuh maksimum benih delima. Konsentrasi KNO_3 0,4% merupakan konsentrasi terbaik dalam meningkatkan persentase kecambah normal dan meningkatkan persentase potensi tumbuh maksimum benih delima. Lama perendaman benih delima dengan KNO_3 selama 6 jam merupakan lama perendaman terbaik dalam meningkatkan persentase potensi tumbuh maksimum benih delima

Kata Kunci : Benih delima, KNO_3 , Dormansi, Viabilitas, Vigor



THE EFFECT OF CONCENTRATION AND SOAKING TIME OF POMEGRANATE SEEDS (*Punica granatum L.*) WITH KNO_3 ON DORMANCY BREAKING , VIABILITY, AND VIGOR

Abstract

This research aims to find out the interaction between concentration and soaking times of pomegranate seeds in potassium nitrate (KNO_3) solution and to know KNO_3 concentration and the best seed immersion length on the dormancy breaking, viability, and vigor. This research was conducted from October 2020 to January 2021, at the Seed Science and Technology Laboratory, Faculty of Agriculture, Andalas University, Padang. This experiment is a factorial experiment consisting of two factors organized based on a Randomized complete block design (RBD). The first factor was concentration of potassium nitrat which consists of 3 levels of concentrations of 0.3%, 0.4%. And 0.5%. The second factor was soaking times consisting of 3 levels of soaking times of 6 hours, 10 hours, and 14 hours. Data were analyzed by analysis of variance and significant difference were further analyzed using Duncan's News Multiple Range Test (DNMRT) at the 5% level. There was an interaction between concentration and soaking time of pomegranate seeds with KNO_3 on the maximum growth potential of pomegranate seeds. KNO_3 concentration of 0.4% is the best concentration in increasing the percentage of normal sprouts and increasing the maximum growth potential percentage of pomegranate seeds. Soaking times of pomegranate seeds with KNO_3 for 6 hours is the best soaking time in increasing the maximum growth potential percentage of pomegranate seeds.

Keywords: Pomegranate seed, KNO_3 , Dormancy, Viability, Vigor

