Intisari

PENGARUH KADAR NaCl TERHADAP KERAGAAN BIBIT DAN HASIL TANAMAN WIJEN *(Sesamum indicum* L.)

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Penelitian dengan judul "Pengaruh Kadar NaCl Terhadap Keragaan Bibit dan Hasil Tanaman Wijen *(Sesamum indicum* L.)" bertujuan untuk mengetahui hubungan antara keragaan bibit dan hasil tanaman wijen serta penelitian dilaksanakan di Kebun Percobaan Tridarma Universitas Gadjah Mada, Banguntapan, Bantul dan di Mrai, Margoagung, Seyegan Sleman, Yogyakarta.

Rancangan penelitian yang digunakan adalah 4 x 5 faktorial yang diatur dalam Rancangan Acak Lengkap (RAL) dengan 3 ulangan. Faktor pertama adalah 4 kultivar wijen, sedang faktor kedua adalah 5 konsentrasi NaCl. Pengamatan pada tahap perkecambahan meliputi gaya berkecambah, indeks vigor, tinggi bibit, panjang akar bibit, berat segar bibit dan berat kering bibit sedang pengamatan pada tahap tanaman dewasa meliputi tinggi tanaman, umur berbunga, umur panen, panjang akar, volume akar, berat segar tanaman, berat kering tanaman, jumlah polong per tanaman, jumlah biji per tanaman dan berat 100 biji.

Pemberian larutan garam pada tahap perkecambahan dengan konsentrasi 9 dan 12 g/l NaCl mengakibatkan gaya berkecambah dan indeks vigor yang sangat rendah bahkan bibit tidak mampu bertahan hidup sedangkan pada tahap tanaman dewasa, pemberian larutan garam dengan konsentrasi tersebut mengakibatkan tanaman mati. Perlakuan 3 g/l NaCl belum menghambat pertumbuhan tanaman wijen, sedang pada perlakuan 6 g/l NaCl menurunkan berat kering semua kultivar wijen. Perlakuan 6 g/l NaCl tidak menurunkan hasil tanaman wijen (jumlah biji per tanaman) kecuali pada kultivar Sumberrejo 1. Sifat yang diamati pada tahap bibit berkorelasi positif sangat nyata dengan komponen hasil tanaman pada tahap dewasa.

Kata kunci : wijen, kadar NaCl, keragaan bibit, hasil tanaman

Abstract

EFFECT OF NaCl CONCENTRATIONS ON SEEDLING PERFORMANCE AND THE YIELD OF SESAME *(Sesamum indicum* L.)

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The purpose of the research with the title "Effect of NaCl Concentrations on Seedling Performance and the Yield of Sesame *(Sesamum indicum* L.)" was to know correlation between seedling characteristic sesame yield parameter, and this research was carried out in Tridarma Experimental Field of Agriculture Faculty situated in Banguntapan, Bantul, Yogyakarta and in Mrai, Margoagung, Seyegan, Sleman, Yogyakarta.

The design of the study was 4 x 5 factorial arranged in Completely Randomized Design (CRD) with three replications. The first factor are four cultivars, and the second factor were 5 NaCl concentrations. Observations on the germination stage including percentage of germination, vigor, seedling height, seedling root length, seedling fresh weight and dry weight, whereas observation on mature stage including plant height, flowering age, age of harvest, root length, root volume, fresh plant weight, plant dry weight, number of pod per plant, number of seeds per plant and 100 seed wight.

The result showed that 9 and 12 g/l NaCl applications reduced percentage of germination and vigor, even worst effect was observed on seedling and mature stage. The application of 3 g/l NaCl did not inhibit the growth of sesame, but 6 g/l application of NaCl reduced dry weight of all sesame cultivars. Application of 6 g/l NaCl reduce of sesame yield (total seed per plant), except cultivar Sumberrejo 1. All seedling characteristics were positively correlated with component of the yield in mature stage.

Key words : *sesame, NaCl concentration, seedling performance, crop yield*