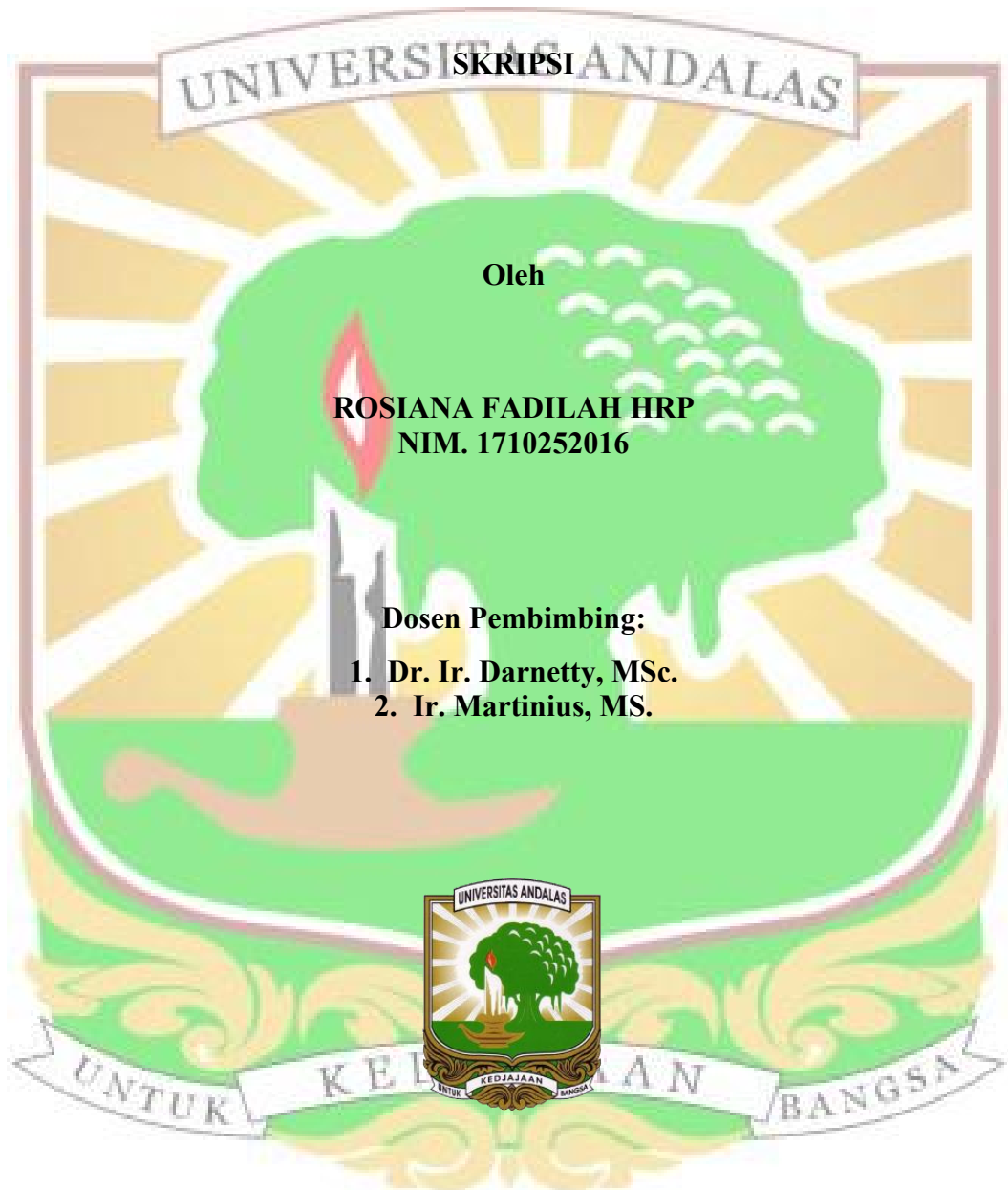


**UJI EFEKTIVITAS NANOEMULSI SERAI WANGI
(*Cymbopogon nardus* L.) UNTUK PENGENDALIAN JAMUR
PATOGEN TERBAWA BENIH PADI (*Oryza sativa* L.)**



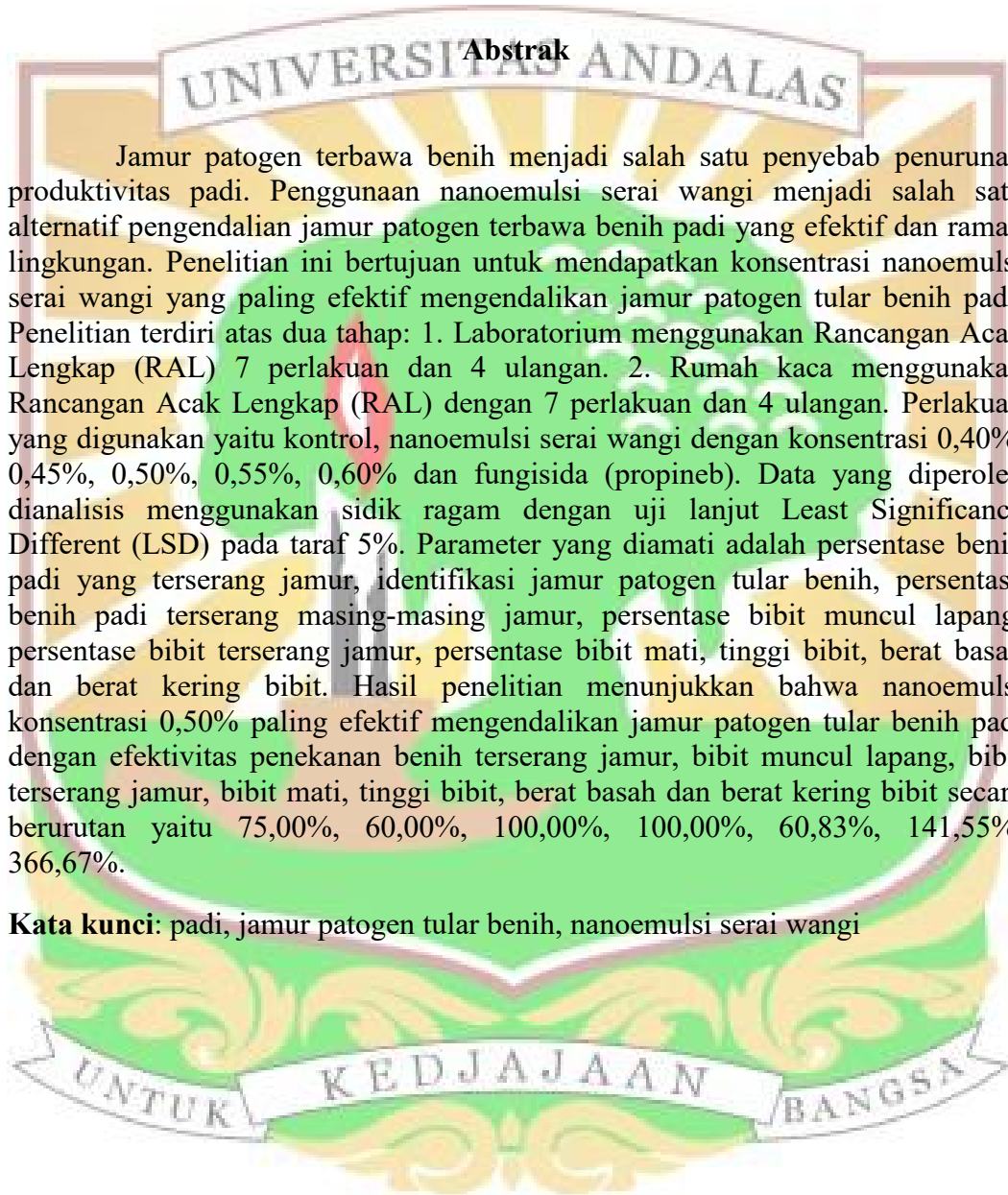
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UJI EFEKTIVITAS NANOEMULSI SERAI WANGI (*Cymbopogon nardus* L.) UNTUK PENGENDALIAN JAMUR PATOGEN TERBAWA BENIH PADI (*Oryza sativa* L.)

Abstrak

Jamur patogen terbawa benih menjadi salah satu penyebab penurunan produktivitas padi. Penggunaan nanoemulsi serai wangi menjadi salah satu alternatif pengendalian jamur patogen terbawa benih padi yang efektif dan ramah lingkungan. Penelitian ini bertujuan untuk mendapatkan konsentrasi nanoemulsi serai wangi yang paling efektif mengendalikan jamur patogen tular benih padi. Penelitian terdiri atas dua tahap: 1. Laboratorium menggunakan Rancangan Acak Lengkap (RAL) 7 perlakuan dan 4 ulangan. 2. Rumah kaca menggunakan Rancangan Acak Lengkap (RAL) dengan 7 perlakuan dan 4 ulangan. Perlakuan yang digunakan yaitu kontrol, nanoemulsi serai wangi dengan konsentrasi 0,40%, 0,45%, 0,50%, 0,55%, 0,60% dan fungisida (propineb). Data yang diperoleh dianalisis menggunakan sidik ragam dengan uji lanjut Least Significance Different (LSD) pada taraf 5%. Parameter yang diamati adalah persentase benih padi yang terserang jamur, identifikasi jamur patogen tular benih, persentase benih padi terserang masing-masing jamur, persentase bibit muncul lapang, persentase bibit terserang jamur, persentase bibit mati, tinggi bibit, berat basah dan berat kering bibit. Hasil penelitian menunjukkan bahwa nanoemulsi konsentrasi 0,50% paling efektif mengendalikan jamur patogen tular benih padi dengan efektivitas penekanan benih terserang jamur, bibit muncul lapang, bibit terserang jamur, bibit mati, tinggi bibit, berat basah dan berat kering bibit secara berurutan yaitu 75,00%, 60,00%, 100,00%, 100,00%, 60,83%, 141,55%, 366,67%.

Kata kunci: padi, jamur patogen tular benih, nanoemulsi serai wangi



**EFFECTIVENESS TEST OF NANOEMULSION OF
LEMONGRASS (*Cymbopogon Nardus* L.) TO CONTROL
SEED-BORNE PATHOGENIC FUNGUS ON RICE (*Oryza
Sativa* L.)**

Abstract

Seed-borne pathogenic fungi are one of the causes of decreased rice productivity. The use of nanoemulsion of lemongrass is one of the alternatives to control seed-borne pathogenic fungi carried by rice seeds is effective and ecofriendly. The objective of this research was to determine the effective concentration of nanoemulsion of lemongrass in controlling rice seed-borne pathogenic fungi. The study consisted of two stages: 1. In The Laboratory using Completely Randomized Design (CRD) with 7 treatments and 4 replications. 2. In The Greenhouse using a Completely Randomized Design (CRD) with 7 treatments and 4 replications. The treatments used were control, lemongrass nanoemulsion with concentrations of 0.40%, 0.45%, 0.50%, 0.55%, 0.60% and fungicide (Propineb). The data obtained were analyzed using variance with the advanced test of Least Significance Different (LSD) at the 5% level. The parameters observed were the percentage of rice seeds that were attacked by fungi, identification of seed-borne pathogenic fungi, percentage of rice seeds that were attacked by each fungus, percentage of seedlings that appeared in the field, percentage of seedlings attacked by fungi, percentage of dead seedlings, seedling height, wet and dry weight of seedlings. The result showed that nanoemulsion with a concentration of 0.50% was the most effective in controlling seed-borne pathogenic fungi in rice with the effectiveness of seeds being attacked suppressing by fungus, seedlings appearing field, seedlings being attacked by fungus, dead seedlings, seedling height, wet and dry weight seeds were 75.00%, 60.00%, 100.00%, 100.00%, 60.83%, 141.55%, 366,67% respectively.

Key words: rice, seed-born pathogen, nanoemulsion of lemongrass

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