ABSTRAK

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PERBANDINGAN METODE DIFUSI CAKRAM DAN SUMURAN PADA UJI DAYA HAMBAT PERASAN JERUK LEMON*(Citrus limon L.)* TERHADAP PERTUMBUHAN JAMUR *Candida albicans*
1x + 101 Halaman + 8 Tabel + 10 Lampiran

Pemeriksaan daya hambat merupakan metode untuk mengetahui kuat atau tidaknya aktivitas anti mikroba pada bahan uji dengan mengukur besar diameter zona hambat. Metode difusi adalah salah satu uji daya hambat yang terbagi menjadi difusi cakram dan difusi sumuran. Pada umumnya pemeriksaan daya hambat sering menggunakan metode difusi cakram karena dinilai lebih praktis tanpa mempertimbangkan keefektifan hasil yang didapatkan. Tujuan dalam hal ini untuk mengetahui perbandingan metode difusi cakram dan sumuran pada uji daya hambat perasan lemon terhadap perkembangan *Candida albicans*. Eksperimental laboratorium adalah jenis penelitian yang diterapkan, pengujian dilaksanakan di Laboratorium Parasitologi, Jurusan Teknologi Laboratorium Medis Poltekkes Kemenkes Surabaya dari bulan November 2023 hingga Mei 2024. Variabel dalam penelitian ini yaitu zona hambat pertumbuhan jamur *C. albicans* pada uji daya hambat perasan lemon variasi konsentrasi 35%, 45%, 55%, 65%, 75% dan 85% menggunakan metode difusi cakram dan sumuran, dalam penelitian ini dikerjakan 3 replikasi pada 8 perlakuan. Sebagai kontrol negatif, akuades steril, dan sebagai kontrol positif, ketokonazol 2%. Hasil penelitian memperlihatkan perasan jeruk lemon memiliki efek dalam menghentikan pertumbuhan jamur *C. albicans*. Ini ditunjukkan dengan munculnya zona hambat di setiap kelompok konsentrasi dan peningkatan diameter daya hambat yang signifikan setiap kali konsentrasi perasan lemon meningkat. Data hasil penelitian diolah menggunakan perangkat statistik SPSS uji normalitas, uji homogenitas, uji *Anova One Way* dan Uji Independen T. Hasil analisa menunjukkan adanya perbedaan antara diameter daerah hambat metode difusi cakram dan Sumuran dengan rerata diameter daerah hambat pada metode difusi cakram yaitu 14,06 mm, sedangkan difusi sumuran sebesar 17,43 mm.

Kata kunci : difusi cakram, difusi sumuran, jeruk lemon, *Candida albicans*

ABSTRACT

Dyah Liestyo Hapsari
COMPARISON OF DISK DIFFUSION AND WELL DIFFUSION METHODS IN TESTING THE ANTIMICROBIAL ACTIVITY OF LEMON JUICE (*Citrus Limon L.)* AGAINST THE GROWTH OF *Candida albicans*
1x + 101 Pages + 8 Tables + 10 Appendices

The inhibition test measures the diameter of the inhibition zone as a means of assessing the antibacterial activity of the test material. One type of resistance test that is separated into disk diffusion and well diffusion is the diffusion method. In general, resistance testing often uses the disk diffusion method because it is considered more practical without Considering the effectiveness of the results obtained. This study purpose to compare the disk diffusion, well diffusion method in order to assess how well lemon juice inhibits an increase in *C. albicans*. Study type is laboratory experimental, and it will be carried out from November 2023 to May 2024 at the Medical Laboratory Technology Department of Poltekkes Kemenkes Surabaya's Parasitology Laboratory. The growth inhibition zones of the fungus Candida albicans in the lemon juice inhibition test, which use disk diffusion and well diffusion to measure concentration changes of 35%, 45%, 55%, 65%, 75%, and 85%, are the variables in this study. In this study, three replications were conducted for eight treatments. Sterile aquades are utilized as the negative control and 2% ketoconazole as the positive control. The study's findings suggest that lemon juice inhibits Candida albicans' proliferation. This is demonstrated by the development of inhibition zones in every concentration group and a marked rise in the inhibitory effect's diameter with increasing lemon juice concentration. The data from the research was processed using the statistical software SPSS, which included normality tests, homogeneity tests, one-way anova, and independent T-tests. The analytical results suggest a difference between the well diffusion method's and the disk diffusion method's inhibition zone diameter. The average of the inhibitory zone's diameter in the disk diffusion method was 14.06 mm, while the well diffusion method measured 17.43 mm.

Keywords: disk diffusion, well diffusion, lemon, *Candida albicans*