

Abstrak

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**PENGARUH VARIASI DAYA LAMPU UV-C TERHADAP PENURUNAN
ANGKA KUMAN ALAT MAKAN DI PT. SANBE FARMA**

viii + 73 Halaman + 9 Tabel + 10 Lampiran

Kebersihan peralatan makan penting karena dengan tidak bersihnya peralatan makan dapat menyebabkan organisme yang tertinggal dapat berkembang biak dan mencemari makanan. PT. Sanbe Farma menyediakan makan untuk karyawan yang bertugas di shift 2 Pemeriksaan angka kuman pada alat makan piring setelah dilakukan pemeriksaan yaitu 600 koloni/cm² dan melebihi baku mutu angka kuman pada Permenkes RI No. 1096/MENKES/PER/VI/2011 tentang Hygiene Sanitasi Jasaboga yaitu 0 koloni/cm² permukaan alat makan. Alat makan yang telah selesai dicuci disimpan pada tempat terbuka, inilah faktor penyebab kontaminasi pada alat makan dapat terjadi setelah proses pencucian. Upaya menurunkan angka kuman tersebut pada penelitian ini adalah sterilisasi dengan memanfaatkan sinar radiasi dari lampu UV-C. Tujuan penelitian ini untuk mengetahui pengaruh variasi daya lampu UV-C terhadap penurunan angka kuman pada alat makan piring. Jenis penelitian ini adalah eksperimental dengan desain penelitian *post test with control*. Populasi dan sampel pada penelitian ini adalah seluruh alat makan piring di ruang EHS PT. Sanbe Farma. Teknik pengambilan sampel alat makan adalah *simple random sampling*. Hasil pemeriksaan angka kuman setelah diberikan perlakuan dalam waktu kontak paparan sinar UV-C variasi 8 watt menunjukkan persentase rata-rata penurunan angka kuman adalah 80,38%, sedangkan untuk variasi 15 watt persentase rata-rata penurunan angka kuman adalah 84,87% dan pada variasi daya lampu UV-C 30 watt persentase rata-rata penurunan angka kuman adalah 92,42%. Hasil analisis uji *one way anova* didapat nilai. $P(0,000) < \alpha(0,05)$, sehingga terdapat perbedaan pengaruh variasi daya lampu UV-C terhadap penurunan angka kuman pada alat makan piring. Perlu adanya penelitian lebih lanjut mengenai daya lampu UV-C yang lebih tinggi dalam penurunan angka kuman pada alat makan.

DAFTAR PUSTAKA : 27 (2003-2021)

KATA KUNCI : Daya Lampu, UV-C, Ultraviolet-C, Angka Kuman

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Abstract

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**EFFECT OF VARIATION OF UV-C LIGHT POWER ON REDUCING
MICROBE NUMBERS AT PT. SANBE FARMA**

viii + 73 Pages + 9 Tables + 10 Attachments

Cleanliness of cutlery is important because unclean eating utensils can cause organisms left behind to breed and contaminate food. PT. Sanbe Farma provides food for employees on shift 2. Examination of the number of germs on cutlery after the inspection is carried out, which is 600 colonies/cm² and exceeds the quality standard for the number of germs in the Indonesian Minister of Health Regulation No. 1096/MENKES/PER/VI/2011 concerning Food Sanitation Hygiene, namely 0 colonies/cm² surface of cutlery. Cutlery that has been washed is stored in the open, this is a factor that causes contamination of cutlery to occur after the washing process. Efforts to reduce the number of germs in this study is sterilization by utilizing radiation rays from UV-C lamps. The purpose of this study was to determine the effect of variations in the power of UV-C lamps on reducing the number of germs on cutlery. This type of research is experimental with a post test with control research design. The population and samples in this study were all plate cutlery in the EHS room of PT. Sanbe Farma. The sampling technique for eating utensils is simple random sampling. The results of the examination of germ numbers after being given treatment in contact time of exposure to UV-C rays with a variation of 8 watts showed the average percentage reduction in germ numbers was 80.38%, while for the 15 watt variation the average percentage reduction in germ numbers was 84.87% and on the 30 watt UV-C lamp power variation the average percentage reduction in germ numbers is 92.42%. The results of the analysis of the one way ANOVA test obtained a value. $P(0.000) < (0.05)$, so that there is a difference in the effect of variations in UV-C lamp power on reducing germ numbers on cutlery. Further research is needed on the higher power of UV-C lamps in reducing the number of germs on cutlery.

REFERENCES: 27 (2003-2021)

KEYWORDS : Light Power, UV-C, Ultraviolet-C, Germs, Microbe