

KARYA TULIS ILMIAH

**UJI EFEKTIFITAS PENGGUNAAN PEWARNAAN ALTERNATIF
KUNYIT (*Curcuma Longa*) TERHADAP PEMERIKSAAN
TELUR CACING *SOIL TRANSMITTED HELMINTH***



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**KEMENTERIAN KESEHATAN REPUBLIK INDONESIA
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Sebagai Syarat Menyelesaikan Pendidikan Program Studi Diploma III

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**EFFECTIVENESS TEST OF TURMERIC (*CURCUMA LONGA*) AS AN
ALTERNATIVE STAIN FOR THE EXAMINATION OF SOIL-
TRANSMITTED HELMINTH EGGS**

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xii + 41 pages + 3 tables + 11 figures + 7 appendices**

ABSTRACT

Soil-Transmitted Helminth (STH) infections are a common disease in tropical countries like Indonesia, largely due to poor sanitation. Microscopic examination of STH eggs typically uses synthetic stains like eosin 2%. However, limited accessibility and potential toxicity of synthetic stains have prompted the search for natural alternatives. This study aimed to test the effectiveness of turmeric extract (*Curcuma longa*) as an alternative stain for the microscopic examination of STH eggs. The research was experimental, using various concentrations of turmeric extract (1:1, 1:2, 1:3, 2:1) and comparing them to eosin 2% as a control. The samples were feces positive for STH eggs. The staining was evaluated based on background clarity, contrast, and the visibility of the egg morphology. The results showed that the 1:3 concentration of turmeric extract provided the best staining, closely approaching the quality of eosin 2%, with a clean background and clearly visible yellowish eggs. Statistical analysis using the Kruskal-Wallis and Mann-Whitney tests showed a significant difference between each treatment ($p < 0.05$). The conclusion of this study was that turmeric extract can be used as an alternative stain for the examination of STH eggs, especially at a 1:3 concentration, although the results are not yet as good as eosin 2%. This research supports the use of more environmentally friendly natural materials in the field of parasitology diagnostics.

Keywords: *Curcuma longa*, eosin 2%, Soil-Transmitted Helminth.

