

ABSTRACT

PENGARUH LAMA WAKTU SEDUH DAUN KRATOM (*Mitragyna speciosa*) MENGGUNAKAN AIR MENDIDIH 100°C TERHADAP AKTIVITAS ANTIOKSIDANNYA JIKA DIUJI MENGGUNAKAN METODE DPPH

Nur Hayati

*The kratom plant belongs to the *Mitragyna speciosa* species, the Rubiaceae family and the *Mitragyna* genus which can be used as traditional medicine. Empirically, kratom leaves have several properties as herbal medicine, including as poultices on wounds, fever medicine, relieve muscle pain, reduce appetite, and treat diarrhea. Several studies have also investigated the pharmacological effects of kratom leaves, such as analgesic, stimulant, antidepressant, anti-inflammatory, antinociceptive, antioxidant and antibacterial activities. Antioxidants are compounds that can inhibit reactive oxygen species as well as free radicals so that antioxidants can prevent diseases associated with free radicals. The purpose of this study was to determine whether the decoction of kratom leaves (*Mitragyna speciosa*) has antioxidant activity when tested using DPPH.*

This test was carried out by taking 2 grams of kratom leaf powder and brewing it with 100°C water for 5 minutes, 10 minutes, 15 minutes, 20 minutes, 25 minutes and was repeated 3 times. 4.697%; 6.131%; 0.146%. 10 minutes 3.788%; 11.970%; 1.021%. 15 minutes 1.060%; 6.715%; 5.839%. 20 minutes 2.273%; 6.423%; 10.657%. and 25 minutes 5.578%; 16.204% ;9.393%.

Each brewing time used in this study resulted in an uncertain % of attenuation due to several factors including the uncontrolled length of the filtering process after brewing, besides that it was also due to the uncontrolled length of temperature drop during the extraction process from the filtering. Henceforth further research can be carried out using solvents and other methods.

*Key word: *Mitragyna speciosa*, leaf kratom, antioxidant, DPPH,, free radicals,*