ABSTRAK

ANALISIS PERBANDINGAN LOGAM BERAT (Mg), (Zn) PADA RIMPANG JAHE EMPRIT (*Zingiber Officinale Var Amarum*) DAN RIMPANG JAHE MERAH (*Zingiber Officinale Var Rubrum Rhizoma*) DI DAERAH DRIYOREJO GRESIK

Amanda Putri Arista

Jahe *(Zingiber afficinale)* merupakan tanaman rempah yang berasal dari afrika selatan, dan sekarang telah tersebar ke seluruh dunia. Jahe memiliki beberapa macam jenis salah satunya jahe merah *(Zingiber Officinale Var Amarum)* dan jahe emprit *(Zingiber Officinale Var Amarum)* Tanaman rimpang jahe juga dapat mengandung logam melalui substrat tanaman tersebut melalui tanah, pupuk, air, pupuk, logam di serap melalui akar tumbuhan tersebut seperti logam Magnesium (Mg) Dan Zink (Zn). Logam berat merupakan salah satu jenis pencemar lingkungan hidup yang sangat berbahaya dan tidak baik untuk kesehatan mahluk hidup karena bersifat tidak dapat terbiodegradasi, toksik, serta mampu mengalami bioakumulasi dalam rantai makanan. Penelitian ini bertujuan untuk menganalisis kadar cemaran logam Magnesium (Mg) dan Zink (Zn) dalam sampel jahe emprit *(Zingiber Officinale Var Amarum)* dan jahe merah *(Zingiber officinale Var Rubrun Rhizoma)* di daerah Driyorejo Gresik, metode experimen dengan menggunakan metode AAS (Atomic Absobtion Spectrophotometry). Prosedur dalam penelitian ini meliputi Pengeringan jahe emprit dan jahe merah, kemudian dilakukan proses destruksi kering, pembuatan sampel, dan dilanjut dengan analisis menggunakan metode AAS (Atomic Absobtion Spectrophotometry). Setelah melakukan proses analisis di dapatkan hasil jahe merah dengan kadar Magnesium sebesar 78,3 mg/L, kadar Zink sebesar 1,989 mg/L, dan jahe emprit dengan kadar Magnesium 45.0 mg/L, kadar Zink sebesar 2.391 mg/L. Kandungan Magnesium dari jahe emprit dan jahe merah lebih kecil dibandingkan dengan hasil kadar Zink.

***Kata Kunci** : Jahe merah, Jahe emprit, Magnesium, Zinc, Atomic Absorption Spectrophotomtery.*

ABSTRACT

COMPARATIVE ANALYSIS OF HEAVY METALS (Mg), (Zn) IN WHITE GINGER (*Zingiber Officinale Var Amarum*) AND RED GINGER (*Zingiber Officinale Var Rubrum Rhizoma*) RHIZOME IN DRIYOREJO GRESIK AREA

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Ginger (Zingiber afficinale) is a spice plant originating from South Africa, and has now spread throughout the world. Ginger has several types, one of which is red ginger (Zingiber Officinale Var Amarum) and emprit ginger (Zingiber Officinale Var Amarum). Ginger rhizome plants can also contain metals through the plant substrate through soil, fertilizer, water, fertilizer, metals are absorbed through plant roots such as the metals Magnesium (Mg) and Zink (Zn). Heavy metals are a type of environmental pollutant that is very dangerous and not good for the health of living things because it is non-biodegradable, toxic and capable of bioaccumulating in the food chain. This study aims to analyze the levels of metal contamination of Magnesium (Mg) and Zink (Zn) in samples of emprit ginger (Zingiber Officinale Var Amarum) and red ginger (Zingiber officinale Var Rubrun Rhizoma) in the Driyorejo Gresik area, using the AAS (Atomic Absobtion Spectrophotometry) method. The procedure in this study included drying ginger and red ginger, then carrying out the dry destruction process, making samples, and proceeding with analysis using the AAS (Atomic Absorption Spectrophotometry) method. After carrying out the analysis process, the results obtained were red ginger with a magnesium level of 78.3 mg/L, zinc level of 1.989 mg/L, and emprit ginger with a magnesium level of 45.0 mg/L, zinc level of 2,391 mg/L. The magnesium content of emprit ginger and red ginger is smaller than the results of zinc levels.

***Keywords**: Red ginger, emprit ginger, Magnesium, Zink, Atomic Absorption Spectrophotometer.*