ABSTRACT

Novita Tiarasari, 24020121120001. Total Phenolic Content and Antioxidant Activity of Simplisia from a Mixture of Strawberry Leaves (*Fragaria* x *ananassa* Duchesne) and Jasmine Flowers (*Jasminum sambac* L.) with Different Drying Methods. Supervised by Endah Dwi Hastuti and Yulita Nurchayati.

Strawberry leaves in Indonesia are generally underutilized and tend to become waste, even though they contain phenolic compounds with antioxidant properties. Processing them into *simplicia* (dried herbal material) is one alternative for utilization. However, since strawberry leaves lack a distinctive aroma, jasmine flowers are added to enhance the fragrance. This study aims to determine the effect of combining strawberry leaves and jasmine flowers, as well as the drying method, on total phenolic content and antioxidant activity. Strawberry leaves and jasmine flowers were washed, chopped, and dried. The dried *simplicia* were then ground and analyzed for total phenolic content using the Folin-Ciocalteu method, and antioxidant activity using the DPPH method. The study used a factorial Completely Randomized Design (CRD) 3×2, with the first factor being the composition ratio of strawberry leaves to jasmine flowers (100:0, 75:25, and 50:50), and the second factor being the drying method (direct sunlight for 3 days and shade drying for 10 days). The observed parameters included weight loss, moisture content, total phenolic content, and antioxidant activity. Data were analyzed using ANOVA, followed by DMRT at a 95% confidence level. The results showed that the mixture of strawberry leaves and jasmine flowers had no significant effect on weight loss, moisture content, total phenolic content, or antioxidant activity. The drying method had a significant effect on total phenolic content and antioxidant activity, but no significant effect on moisture content or weight loss. The combination of strawberry leaves and jasmine flowers with different drying methods had no significant effect on total phenolic content, antioxidant activity, weight loss, or moisture content. The best treatment was the 100% strawberry leaf and 0% jasmine flower combination. Shade drying for 10 days resulted in the highest total phenolic content and antioxidant activity.

Keywords: *total phenolic content, antioxidant activity, simplisia mixture, strawberry leaves, jasmine flowers, drying method*