

**DETERMINATION OF TOTAL PHENOLIC CONTENT AND
ANTIOXIDANT ACTIVITY IN BARK OF CINNAMON
(*Cinnamomum Verum*)**

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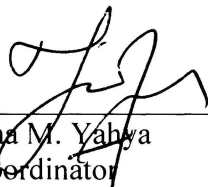
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ABSTRACT

DETERMINATION OF TOTAL PHENOLIC CONTENT AND ANTIOXIDANT ACTIVITY IN BARK OF CINNAMON (*Cinnamomum verum*)

This study was aimed to compare the total phenolic activity in bark of three different forms of cinnamon bark which is fresh cinnamon, dried cinnamon and powder cinnamon were used in this study. The barks are taken in edible portion and were extracted using ethanol. The antioxidant properties are detected using total phenolic compound (TPC) and analysis of antioxidant activity by scavenging of 1, 1-diphenyl 2-picrylhydrazyl (DPPH). The total phenolic content of cinnamon bark was in the following order of fresh bark > dried bark > powder bark. The total phenolics (mg/100g) are 9.86, 8.22 and 5.78 respectively in descending order. The results of the study revealed that the maturation cause a significant increase in total phenolic content. Fresh bark showed the highest total phenolic content followed by dried bark and powder bark. Analysis of antioxidant activity by using DPPH method also showed the same result of the order of cinnamon bark which is fresh cinnamon (11.6667 $\mu\text{M TE/g}$ fresh mass), dried cinnamon (8.3333 $\mu\text{M TE/g}$ fresh mass) and powder cinnamon (6.6667 $\mu\text{M TE/g}$ fresh mass). In view of this it can be concluded that total phenolic contents are different between the three form samples of cinnamon.