ABSTRACT

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STUDY OF ANTIOXIDANT ACTIVITY AND THE EFFECT OF VITAMIN C TOWARDS ANTIOXIDANT ACTIVITY IN GREEN, YELLOW, ORANGE, AND RED PAPRIKA
(xiii + 62 pages : 10 tables, 19 figures, and 9 appendixes)

Paprika is a kind of vegetable that has function as antioxidant. This is due to its high antioxidant activity. This research was aimed to compare the antioxidant activity of several colors of paprika, such as green, yellow, orange, and red and to study the effect of vitamin C towards the antioxidant activity. This research was divided into two stages. The different colors of paprika and the existence of vitamin C were used as the factor on the first and second stages of the researches, respectively. The result showed that the different colors of paprika affected significantly the antioxidant activity. Furthermore, different colors of paprika had different antioxidant activity because of the different total phenolic content. There were several phytochemical compounds analyzed in this research, such as total phenolic content, total flavonoid content, and β-carotene. Red paprika was identified to have the highest antioxidant activity among the other paprika. Paprika is also known as an excellent source of vitamin C. The result showed that existence of vitamin C affected significantly the antioxidant activity in different colors of paprika. Paprika which had vitamin C content had higher antioxidant activity than paprika which no vitamin C. In fact, vitamin C contributed significantly to antioxidant activity. The comparison between antioxidant activity in each antioxidant compounds was also observed in order to identify which compound gave more contribution to antioxidant activity in paprika. The result showed that the antioxidant activities of paprika were more contributed by phenolic compounds than vitamin C and β-carotene.

Keywords : paprika, antioxidant activity, vitamin C, total phenolic content, total flavonoid content, β-carotene

References : 49 (1992-2010)