

# ANALYSIS OF NITRITE LEVELS IN BOILED WATER OF RED SPINACH (*Amaranthus tricolor L*) THE BEGINNING AND WHIC IS LEFT IN ROOM TEMPERATURE

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## ABSTRACT

Red Spinach (*Amaranthus tricolor L*) is the one type of spinach which is a lot of consumed by human. Red spinach contains vary nutrient such as vitamins, proteins, carbohydrates, fats, minerals, iron, calcium, potassium, manganese and nitrite. Nitrites can react with a few amino acid compounds in the body to form nitrosamines which is carcinogens. Red spinach was boiling for too long caused increasing nitrite levels. Type of research is analytical experimental. The aims of this research was to know the effect of left time (0,1,2,3,4,5 hours) on boiled water of red spinach towards nitrite levels. This research done on February – August, 2017 in Chemical Laboratory, Nursing and Health Faculty, Muhammadiyah University of Semarang. The sample of research is red spinach which is boiled and left at room temperature (0,1,2,3,4,5 hours). Nitrite measured by spectrophotometry at 520 nm wavelength. The results showed that nitrite in the beginning is 2,90 mg/kg. Average nitrite content in boiled water of red spinach after being left at room temperature 0, 1, 2, 3, 4, 5 hours respectively was ,47 mg/kg; 3,67 mg/kg; 4,20 mg/kg; 4,87 mg/kg; 5,67 mg/kg dan 6,73 mg/kg. There is an increase in nitrite levels on the water of red spinach after being left at room temperature. Repeated Anova statistic test showed significance value  $0,027 > 0,05$  so it can be concluded that there is influence of variations of a left time in boiled water of red spinach at room temperature towards nitrite levels.

**Keywords :** Boiled water of Red Spinach, Nitrite Level, Time left variation.