

## **DETERMINATION OF ANTIOXIDANT PROPERTIES OF ALOE VERA AND PRESERVATION OF ALOE VERA GEL**

**Kumari E.S.P.T.<sup>1\*</sup>, Jayawardana S.A.S.<sup>2</sup>, Madage S.S.K.<sup>2</sup> and Vasantharuba S.<sup>1</sup>**

<sup>1</sup>Department of Agricultural Chemistry, Faculty of Agriculture, University of Jaffna, Ariviyal Nagar, Kilinochchi, Sri Lanka

<sup>2</sup>Food Technology Section, Industrial Technology Institute, Halbarawa Gardens, Thaladena, Malabe, Sri Lanka

**\*Corresponding author: [shashiek95@gmail.com](mailto:shashiek95@gmail.com)**

### **Summary**

Aloe vera gel is commonly used as a raw material in food industry. Yield and shelf life are crucial factors in developing innovative food products for commercialization. Selecting a desirable preservation method based on the characteristics of the raw material increases the quality and quantity of the final product. Aloe vera (*Aloe barbadensis* Miller) gel is a sensitive raw material due to its low solid content and high water content. Besides, it contains health beneficial phytochemicals. The present study was focused to determine the antioxidant properties of Aloe vera and to determine the potential of preserving Aloe vera gel using osmotic dehydration followed by pasteurization. For osmotic dehydration, salt, sugar and kithul treacle were used as osmotic agents. According to the results, osmotic dehydration can be considered as a successful preservation method for Aloe vera gel.

**Keywords:** Aloe vera, antioxidants, osmotic dehydration, preservation