Physicochemical Properties and Sensory Evaluation of Jelly Candy Made from Carrots and Strawberries

Liana-Claudia SALANȚĂ, Maria TOFANĂ*, Carmen POP, Sonia SOCACI, Anamaria POP, Melinda NAGY

Faculty of Food Science and Technology, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania.
*Corresponding author e-mail: tofanam@yahoo.com

ABSTRACT
Consumers today want healthful foods that provide phytonutrients to promote good health and well-being without sacrificing taste, texture, or convenience. Consumption of fruits and vegetables is part of maintaining a healthy lifestyle, in order to diversification of jellies and promote healthy eating, it was intended to valorification a raw material such as carrots and strawberry. The aim of the study was to investigate potential use of some fruits or vegetables in jelly candies, by physicochemical analyses and general consumer's acceptance. To achieve the proposed goal, two kinds of jellies (with carrots and strawberry) was obtained.

Keywords: carrot, strawberry jelly candy.

INTRODUCTION
Human nutritional research is continually showing that a well-balanced diet, rich in fruit and vegetables, promotes good health and may reduce the risk of certain diseases (Catunescu et al., 2012). Candy is one of favourite foods among people from a wide range of age. Confectionery products are food formulations characterized by aqueous dispersions of sugar syrups and are available in a broad variety of forms including caramels, marshmallows, gums, jellies and gummies, and hard candies. Soft jelly is characterized by a soft and chewy texture typically conferred by a gelatin or pectin-based gel (Fisher, 2011). Utomo et al. (2014) stated that chewy candies made with different gelling agents and sweeteners offer certain especific texture characteristics and eating properties. It is known that carrots and strawberry contain a high amount of vitamin C, vitamin A, carotenoids, fiber and minerals. These raw materials was chosen in obtaining jelly for several reasons including: a specific taste, a natural color given by the pigments (carotene and anthocyanin), which offers the jelly a natural and pleasant texture.

AIMS AND OBJECTIVES
Recent consumer trends have shifted toward procuring food products with a wide spectrum of health benefits. This research aims to assess the addition of some fruits and vegetables and their impact on the organoleptic characteristics of jelly candy. To achieve the proposed goal, the content in dry matter %, acidity (citric acid) %, ash %, vitamin C, total sugar and sensory parameters were determined for the analyzed samples.

MATERIALS AND METHODS
All raw materials used in these experiments have been purchased from local supermarkets. The producing recipe contains the following ingredients: carrots or strawberry (200 g), sugar (200 g), pectin (25 g), water (200 ml) and lemon juice (50 ml). The physicochemical analyses of samples were analyzed according to standards of AOAC (Association, 2000). The method for
The determination of ascorbic acid consist in the extraction of ascorbic acid from the test sample with a solution of hydrochloric acid (HCl) and titration with a solution of potassium iodate (KIO3) to a blue color which must persist for 30 seconds. For the sensory analysis a simple hedonic scale with a small number of points (from 1 to 4 with 1- i don`t like it and 4 - i like it very much) was used in order to evaluate the first impression, the aspect, the flavour, the texture, the taste and the smell of the samples of jelly candies.

RESULTS AND DISCUSSION
Two kinds of jellies (with carrots and strawberry) was obtained. The results showing the quality parameters are presented in table 1. All samples are in agreement with the ranges published in literature (Tofană and Mureșan, 2012). According to the sensory analysis results, the aspect, taste and flavour were appreciated by scoring higher the samples with strawberry than carrots jelly. Sensory evaluation analysis showed a preference for the jelly with strawberry.

CONCLUSIONS
The development of new jellies products with carrots and strawberry can be a alternative for high-quality candy products that meet consumer demands. Given the natural color from the red pigment anthocyanin and orange pigment carotene, jellies have a natural look pleasant, attractive to the consumer. Due to the high vitamin C content, the products obtained address all categories of consumers.

REFERENCES