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Quality of hermetically packaged dehydrated carrots during long-term storage

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INTRODUCTION

Due to the significant amount of time and energy vehicles require to travel, it has been considered for applications necessitating long periods of statics such as military related missions, extravehicular travel, humanized, and personal care. Packets calories and water are defined as packets of food and drink. Temperature and atmospheric conditions affect the shelf life of rehydrated carrots. The purpose of this study was to determine how well rehydrated carrots performed in reduced oxygen atmospheres at 25°C for long-term stored temperature data. Significant differences were determined with the chi-square method. This paper provides new information as to whether rehydrated carrots can be used instead of shade to store the higher rate of beta-carotene and carotenoids was used at 8°C in a 4 cm radius. The other carrots were measured on the same day for nutrient content were measured on the same day for nutrient content. The purpose of this study was to determine the sensory and nutritional quality of rehydrated carrots stored in reduced oxygen atmospheres at 25°C for future nutritional and quality studies.

 METHODOLOGY

Samples

Eight samples of dehydrated carrots in 10 or 12 cans were evaluated. Samples ranged in age from 1 to 34 years. A control sample (11+) of carrots was obtained from a commercial carrier. All other samples were obtained from dehydrated carrots from the U.S. Food and Drug Administration (FDA) (1995a). The FDA was used to determine how well rehydrated carrots performed in reduced oxygen atmospheres at 25°C for long-term stored temperature data. Significant differences were determined with the chi-square method. This paper provides new information as to whether rehydrated carrots can be used instead of shade to store the higher rate of beta-carotene and carotenoids was used at 8°C in a 4 cm radius. The other carrots were measured on the same day for nutrient content. The purpose of this study was to determine the sensory and nutritional quality of rehydrated carrots stored in reduced oxygen atmospheres at 25°C for future nutritional and quality studies.

Headspace Oxygen, Can Seams, Water Activity, and Color

Headspace oxygen was measured using a 4130 Analytical Oxygen Analyzer (Milan, IL). Can seams were evaluated using the Densimeter System (Direction Corporation, Waltham, MA) to measure the following levels: moisture, weight, and radiation. Samples were measured using the chi-square method. This paper provides new information as to whether rehydrated carrots can be used instead of shade to store the higher rate of beta-carotene and carotenoids was used at 8°C in a 4 cm radius. The other carrots were measured on the same day for nutrient content. The purpose of this study was to determine the sensory and nutritional quality of rehydrated carrots stored in reduced oxygen atmospheres at 25°C for future nutritional and quality studies.

Sensory Analysis

Sensory analysis was conducted at the Brigham Young University Sensory Laboratory using standard procedures. Samples were rehydrated by submerging the carrots in water for 15 minutes and then stored at 4°C for 24 hours. The sensory panel consisted of 10 assessors who were trained in sensory methods and had previous experience in the type of food being evaluated. The panelists were selected for their ability to discern the differences between the various treatments. The differences were determined using the Mercier-Laurant panel method (71-73, 1979). The panel consisted of 10 assessors who were trained in sensory methods and had previous experience in the type of food being evaluated. The panelists were selected for their ability to discern the differences between the various treatments. The differences were determined using the Mercier-Laurant panel method (71-73, 1979). The panel consisted of 10 assessors who were trained in sensory methods and had previous experience in the type of food being evaluated. The panelists were selected for their ability to discern the differences between the various treatments. The differences were determined using the Mercier-Laurant panel method (71-73, 1979).

Nutrient Analysis

Beta-carotene and alpha carotene content of samples ranged from 18.5 to 464 mg/100g and 15 to 76 mg/100g, respectively. Figure 6 shows significant changes in the content of some nutrients over time. The wide variation observed in this study could not be related to differences in product lots. It is noteworthy that after 25 years of storage, a sample of 25 α-carotene stored in dehydrated carrots contained over 100% of the normal reference value (NRV) for α-carotene.

CONCLUSIONS

It is concluded that carrots stored for 25 years at 8°C are safe to eat and retain their sensory and nutritional quality. This study provides new information as to whether rehydrated carrots can be used instead of shade to store the higher rate of beta-carotene and carotenoids was used at 8°C in a 4 cm radius. The other carrots were measured on the same day for nutrient content. The purpose of this study was to determine the sensory and nutritional quality of rehydrated carrots stored in reduced oxygen atmospheres at 25°C for future nutritional and quality studies.