USE OF PREFERENCE MAPS TO EVALUATE THE EFFECT OF COLD STORAGE ON SENSORY QUALITY OF AROMATIC HERBS

Giorgiana Mihaela CĂTUNESCU[1], Ioan ROTAR[1], Roxana VIDICAN[1], Florina BUNGHEZ[2]

e-mail: giorgiana.catunescu@usamvcluj.ro

Abstract

Nowadays consumers desire a diet rich in fresh food, but they are also in search for ready-to-eat products. These are not usually the healthy choice. In this context minimally processed fresh fruit, vegetables and aromatic herbs became popular. But, their shelf life is usually short even when applying packaging and cold storage. In this context, it is important to understand the evolution of acceptance and preference of minimally processed products during storage. So, the present paper aimed to evaluate the effect of refrigeration on some sensory characteristics of minimally processed herbs from a consumer's point of view. The herbs under study were parsley (*Petroselinum crispum*), dill (*Anethum graveolens*) and lovage (*Levisticum officinale*) minimally processed, packaged in polyethylene bags and stored at 4°C for 12 days. Color, texture and flavor were measured on a scale of 1 to 5 in the 1st, 5th, 8th and 12th day of storage. Principal component analysis (PCA) was performed on sensory analysis results and a consumer preference map was obtained. They showed the dynamic of consumer preference compared to sensory quality attributes during storage. At the beginning of the study none of the assessors was satisfied with the sensory quality of parsley, 60% were satisfied with dill and all preferred lovage. After 12 days of storage, satisfaction provided by dill decreased to 0%, by lovage to 40% and by parsley to 20%. Consumers preferred flavor in proportion of 80-100% compared to only 40-60% for other sensory attributes such as texture and color. The use of PCA and preference maps helped identifying the effect of cold storage on sensory parameters of minimally processed herbs and the existing correlations among quality parameters.

Key words: parsley, dill, lovage, principal component analysis, sensory analysis