

## ABSTRACT

The aim of the study was to assess the quality of dried vegetables obtained from 10 vegetable species, depending on the drying method (convection drying or freeze-drying) and storage temperature (2-4°C and 18-22°C) for 4, 8, 12 months. For the experiment, cruciferous vegetables (cauliflower, broccoli, brussels sprouts, savoy cabbage), legumes (green beans, green peas), root vegetables (carrots, root celery, root parsley) and onion were dried.

The dried vegetable quality examination included the assessment of the content of selected determinants of chemical composition (water, vitamins C and E, carotenoids,  $\beta$ -carotene, chlorophyll, polyphenols and the level of antioxidant activity), sensory characteristics (5-point scale assessment), color, texture and palatability parameters using the profiling method), color L\*a\*b\* parameters, as well as rehydration ratio and water activity.

The chemical composition of the raw material, blanched raw material, dried directly after drying and after 4, 8, 12 months of storage was analyzed. The sensory evaluation was carried out after a year of storage in two temperatures, while the instrumental color evaluation was carried out in the raw material, blanched raw material, dried material immediately after drying and after 12 months of storage. The ability to rehydrate was assessed immediately after drying and after 12 months of storage, while water activity was assessed immediately after drying and after 4, 8, and 12 months of storage.

In fresh vegetables, in 100 g DM, the highest amounts of vitamins C and E, chlorophyll and the highest antioxidant activity were found in brassica vegetables, carotenoids and  $\beta$ -carotene in carrots, and polyphenols in brussels sprouts and onions. Freeze-dried vegetables immediately after receipt and after a year of storage, were richer in the analyzed descriptors of chemical composition than those dried by the convection method. One-year storage of dried vegetables caused the greatest losses in the content of  $\beta$ -carotene, carotenoids and vitamin C. The storage temperature generally affected the assessed descriptors of chemical composition, colour, taste and smell. The above discriminant did not affect the change in water activity, hydration, texture and 5-point rating.