

ABSTRACT

Three vegetables, namely, beans (*Phaseolus vulgaris*), capsicum (*Capsicum pubescens*) and knol-khol (*Brassica oleracea*) were minimally processed with 0.7mM sodium hypochlorite with and without the addition of 0.09mM calcium chloride and were stored at 4°C. They were analysed on 0, 2, 4, 6 and 8 days for their nutritional profile, microbiological load and storage life. The effect of the packaging material (high density polypropylene and low density polypropylene) and cutting knives (stainless steel and iron) were also observed. The vegetables packed in high density polypropylene were able to retain more of their nutritional value than the vegetables packed in low density polypropylene. Though there were no changes in the content of protein, crude fibre and ash, reduction in ascorbic acid, moisture content and water activity was observed. The reduction of moisture content every second day in the vegetables stored in HDPP was 1-1.5% and in LDPP was 1.5-1.3%. Average moisture loss after 8 days of storage was 7.2% in beans, 7.3% in capsicum and 7.1 % in knol-khol. Loss of ascorbic acid was 1-2.5% in HDPP and 4.23% in LDPP every second day. Average loss of ascorbic acid after 8 days of storage was 28.1% in beans, 4.2% in capsicum and 5.5% in knol-khol. Similarly, 0.5% -1% loss in water activity was also seen every second day. Average water activity loss after 8 days of storage was 15.8% in beans, 3% in capsicum and 18.3% in knol-khol. The cutting knives were found to have no effect on the nutritional quality of the vegetables. The shelf life of the vegetables under these processing conditions was found to be about eight days. Though there was increase in the number of microbial colonies, no detectable *Pseudomonas* was found. The study revealed that minimally processed beans, capsicum and knol-khol had better nutritional quality and longer shelf-life when dipped in sodium hypochlorite-calcium chloride solution and packed in HDPP.