ABSTRACT

Physical properties of spinach beet were studied for extending shelf-life of spinach beet using precooling and storage methods. The temperature of spinach beet was reduced from 20°C to 15°C, 10°C and 5°C within 15, 30 and 90 minute in case of forced air precooling and 30, 60 and 210 minute in case of still air precooling, respectively. The precooled samples were packed in different polyethylene bags (100, 200 and 300 gauge) and stored at 5°C, 10°C and 15°C temperature. The weight loss was found maximum in 100 gauge packaging followed by 200 gauge packaging. Minimum weight loss was in 300 gauge packaging (1.86%). The shelf life of precooled samples ranged between 2 to 7, 3 to 10 and 4 to 14 days for different packaging stored at 15°C, 10°C and 5°C, respectively. The discolouration of sample (fresh green to dark green) was observed after 7, 10 and 14 days.

Key words: Precooling, Weight loss, Colour, Texture, Shrinkage index, Shelf life