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Abstract

In this study, weight loss and the methods to reduce weight loss were determined as well as the parameters of pressure, temperature and time during the vacuum cooling of lettuce, cauliflower, cabbage and spinach at low evacuation rate using three different methods and these were compared with the studies made before. The weight loss for every 1°C ratios of products with high specific volume values during vacuum pre-cooling practices are also high, since they can release the water inside their structure more easily. However, they are more suitable to vacuum pre-cooling compared with the other products. Spraying water onto the products which could not release their water readily, during vacuum pre-cooling reduces the weight loss for every 1°C and also increases the cooling rate. In this connection one can say that spraying water onto the lettuce, cabbage, cauliflower, spinach and thereafter covering them with perforated PVC film before cooling in the vacuum cooling process is a factor significantly reducing the weight loss for every 1°C and total weight loss.