QUALITY CHANGES OF SALTING CHINESE CABBAGE WITH ELECTROLYZED WATER TREATMENT DURING STORAGE

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This study investigated the microbial and quality changes of salted Chinese cabbage using electrolyzed water for extension of shelf-life. Electrolyzed water, generated from electrolysis of a dilute solution of sodium chloride, has recently been introduced as a sanitizer for the food industry. The electrolyzed water was used to control the microbes before the salting process, and salting Chinese cabbage were stored by immersing with 2% salting solution at 0, 4 and 10°C. The total bacteria, coliform and lactic acid bacteria populations were actively increased at 10°C. In case of storage at 0°C, microbial growth were below 6 log CFU/g by the 8th week. Also the electrolyzed water treatment was lower about 1 log CFU/g than non-treatment. The pH was slightly decreased, and the salinity had no difference from the initial day to the 8th week. The hardness were decreased from 295.3 to 132.1 kg/cm². The transmittance of salting solution declined below 50% after 6 weeks at 0°C. In conclusion, the storage at 0°C after the electrolyzed water treatment were more effective for salting Chinese cabbage and it expect to store about 7 weeks as the result of quality changes. This study demonstrated that electrolyzed water could be used to reduce microbial on salted Chinese cabbage and have a positive impact on ensuring self-life of salted Chinese cabbage for consumption.