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PS 1A-12 Effect of Vacuum Packaging in Nutritional Quality of Minimally Processed Potato

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Potato was first cultivated in South America and it was introduced in Europe in the sixteen century. It is now among the 10 major crops of the world and it is grown in 140 countries. Potato is a good source of carbohydrates, proteins, vitamins and minerals. It has a slightly lower energy content than other roots, tubers and cereals, but this is advantageous in overcoming the problem of obesity in the developed world. In the last years consumers become more health conscious in their food choices but they also have less time to prepare healthy meals. As a result minimally processed products become an important sector of food industry due to their fresh like quality, convenience and speed to prepare meals. The physical damage or wounding caused by preparation increases the rate of degradative reactions. Vacuum packaging is one potential alternative to preserve product quality. The knowledge of the nutritional impact of minimal processing operations on these products will be an advantage for the producers that will possess information to create new markets and to the consumer himself, since he will have a new type of products highly convenient. In this study, the nutritional value and the physical quality of MP potatoes (Jaerla variety) stored during 7 days in vacuum packaging was evaluated. No significant changes were observed in colour, polyphenoloxidase and phenols content after 7 days of vacuum storage at 6°C. The shelf life of MP potatoes was effectively extended to nearly one week under refrigerated storage by using vacuum packaging systems. The main quality parameters were almost constant during storage, only ascorbic acid content decreased, nevertheless the final content was still important. Since the absence of air in vacuum packaging may favour the growth of anaerobic pathogens it would be of remarkable importance to develop the microbiological evaluation.