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Monitoring of Sustainability of Extruded Soya Product TRADKON SPC-TEX in Order to Define Expiration Date

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Abstract : New attitudes about nutrition impose new styles, and therefore a neNew attitudes about nutrition impose new styles, and therefore a new kind of food. The goal of our work was to define the shelf life of new extruded soya product with minimum 65% of protein based on the analyses. According to the plan it was defined that a certain quantity of the same batch of new product (soybean flakes) which had predicted shelf life of 2 years had to be stored for 24 months in storage and analyzed at the beginning and end of sustainability plan on instrumental analyses (heavy metals, pesticides and mycotoxins) and every month on sensory analyses (odor, taste, color, consistency), microbiological analyses (Salmonella spp., Escherichia coli, Enterobacteriaceae, sulfite-reducing clostridia, Listeria monocytogenes), chemical analyses (protein, ash, fat, crude cellulose, granulation) and at the beginning on GMO analyses. All analyses were tested according to: sensory analyses ISO 6658, Salmonella spp ISO 6579, Escherichia coli ISO 16649-2, Enterobacteriaceae ISO 21528-2, sulfite-reducing clostridia ISO 15213 and Listeria monocytogenes ISO 11290-2, chemical and instrumental analyses Serbian ordinance on the methods of physico-chemical analyses and GMO analyses JRC Compendium. The results obtained after the analyses which were done according to the plan during the 24 months indicate that are no changes of products concerning both sensory and chemical analyses. As far as microbiological results are concerned Salmonella spp was not detected and all other quantitative analyses showed values <10 cfu/g. The other parameters for food safety (heavy metals, pesticides and mycotoxins) were not present in analyzed samples and also all analyzed samples were negative concerning genetic testing. On the basis of monitoring the sample under defined storage conditions and analyses of quality control, GMO analyses and food safety of the sample during the shelf within two years, the results showed that all the parameters of the sample during defined period is in accordance with Serbian regulative so that indicate that predicted shelf life can be adopted.w kind of food. The goal of our work was to define the shelf life of new extruded soya product with minimum 65% of protein based on the analyses. According to the plan it was defined that a certain quantity of the same batch of new product (soybean flakes) which had predicted shelf life of 2 years had to be stored for 24 months in storage and analyzed at the beginning and end of sustainability plan on instrumental analyses (heavy metals, pesticides and mycotoxins) and every month on sensory analyses (odor, taste, color, consistency), microbiological analyses (Salmonella spp., Escherichia coli, Enterobacteriaceae, sulfite-reducin clostridia, Listeria monocytogenes), chemical analyses (protein, ash, fat, crude cellulose, granulation) and at the beginning on GMO analyses. All analyses were tested according: sensory analyses ISO 6658, Salmonella spp ISO 6579, Escherichia coli ISO 16649-2, Enterobacteriaceae ISO 21528-2, sulfite-reducing clostridia ISO 15213 and Listeria monocytogenes ISO 11290-2, chemical and instrumental analyses Serbian ordinance on the methods of physico-chemical analyses and GMO analyses JRC Compendium. The results obtained after the analyses which were done according to the plan during the 24 months indicate that are no changes of products concerning both sensory and chemical analyses. As far as microbiological results are concerned Salmonella spp was not detected and all other quantitative analyses showed values <10 cfu/g. The other parameters for food safety (heavy metals, pesticides and mycotoxins) were not present in analyzed samples and also all analyzed samples were negative concerning genetic testing. On the basis of monitoring the sample under defined storage conditions and analyses of quality control, GMO analyses and food safety of the sample during the shelf within two years, the results showed that all the parameters of the sample during defined period is in accordance with Serbian regulative so that indicate that predicted shelf life can be adopted.

Keywords : extruded soya product, food safety analyses, GMO analyses, shelf life
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