

F.42. YOGURT ENRICHMENT WITH JERUSALEM ARTICHOKE (*HELIANTHUS TUBEROSUS*) FLOUR AS PREBIOTIC SOURCE

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Abstract. Jerusalem artichoke (*Helianthus tuberosus*) tubers are a raw material used to obtain functional food ingredients, especially due to inulin, which is beneficial for people with special dietary requirements (diabetes, obesity etc.). This study was aimed to evaluate the effect of Jerusalem artichoke flour (JAF) addition in yoghurt compositions. Jerusalem artichoke flour was used up to 2% to improve the nutritional status of yoghurt. The chemical, nutritional and sensory properties of enriched yoghurt samples were evaluated. It has been established that the addition of JAF accelerates the fermentation speed and reduces the fermentation and coagulation time of yogurt, fact confirmed and by the increase in viscosity with increasing concentration of incorporated JAF. An inversely proportional relationship was established between the concentration of Jerusalem artichoke flour in yogurt samples and their syneresis index, during 10 days of storage the syneresis index reached a value of 15% for control sample and 10.8% for sample with 2% of Jerusalem artichoke flour. With respect to the sensory quality, yoghurt samples had acceptable scores from the taste panelists, the best results being registered for yoghurts with 1.0 and 0.5% Jerusalem artichoke flour.

Keywords: Jerusalem artichoke, yoghurt, inulin, prebiotic, probiotic.