

Resumen

El kéfir es un producto lácteo fermentado que poco a poco ha aumentado su popularidad por la serie de beneficios que se asocian a su consumo y por ser considerado una bebida probiótica natural, sin embargo debido a problemas asociados al consumo de leche de vaca tales como la intolerancia a la lactosa, alergias a las proteínas de la leche, alto contenido de colesterol e incluso por el aumento de personas veganos/vegetarianos se ha buscado implementar los beneficios del kéfir en otras bebidas o sustratos de origen no lácteos que se asemejen a la leche bovina. En este estudio se utilizó leche de soya y leche de almendra para la elaboración de kéfir fermentado a 18, 24 y 48 horas y su posterior análisis físico-químico, microbiológico y sensorial. La fermentación a los distintos tiempos para ambas leches vegetales dio como resultado cambios en el aspecto, color y olor de ambas bebidas, además se dio un aumento en el contenido de ácido láctico y una disminución del pH, azúcar total y densidad del medio. Se obtuvieron recuentos de al menos 10^7 UFC/mL de bacterias ácido lácticas y levaduras para ambos casos, cumpliendo con los parámetros establecidos por la norma ecuatoriana NTE INEN 2395 para leches fermentadas. Finalmente, el análisis sensorial indicó que la aceptabilidad general media del kéfir de leche de soya y del kéfir de leche de almendra se encontró entre (3.74 - 4.34) y (3.62 – 4.02) respectivamente, lo que se traduce según la escala hedónica de 5 puntos como una aceptación media sin rechazo extremo.

Palabras clave: Probióticos, kéfir, granos de kéfir, leche vegetal.

Abstract

Kefir is a fermented milk product that has gradually increased its popularity due to the series of benefits associated with its consumption and for being considered a natural probiotic drink, however due to problems associated with the consumption of cow's milk such as lactose intolerance, allergies to milk proteins, high cholesterol content and even due to the increase of vegans/vegetarians, it has been sought to implement the benefits of kefir in other drinks or substrates of non-dairy origin, allergies to milk proteins, high cholesterol content and even due to the increase of vegans/vegetarians, it has been sought to implement the benefits of kefir in other beverages or substrates of non-dairy origin that are similar to bovine milk. In this study, soy milk and almond milk were used for the preparation of kefir fermented at 18, 24 and 48 hours and its subsequent physicochemical, microbiological and sensory analysis. Fermentation at different times for both vegetable milks resulted in changes in the appearance, color and odor of both beverages, as well as an increase in lactic acid content and a decrease in pH, total sugar and density of the medium. Counts of at least 10^7 CFU/mL of lactic acid bacteria and yeasts were obtained for both cases, complying with this and other parameters established by Ecuadorian standard NTE INEN 2395 for fermented milks. Finally, the sensory analysis revealed that the average overall acceptability of soy milk kefir and almond milk kefir was between (3.74 - 4.34) and (3.62 - 4.02) respectively, which translates according to the 5-point hedonic scale as an average acceptability without extreme rejection.

Key words: Probiotics, kefir, kefir grains, vegetable milk.