The Torch
Vol. 2 (42)

Kefir and its significance

Pragyananda Choudhury

Have you ever heard the word kefir? If not, let me tell you. Kefir is a powerful probiotic which is made from fermented milk containing a complex symbiotic mixture of lactic acid bacteria and yeast. It is a viscous, self-carbonated beverage with a smooth but slightly foamy body and whitish colour, having a low quantity of alcohol. Kefir originated in the Caucasus and spread through Russia, from where it became known to Europe and finally, to the rest of the world. Kefir is produced by the fermentation of milk with kefir grains. Kefir grains are yellowish-white, elastic, slimy, irregular shaped and have an amazing array of microflora. Some of the bacterial species include Leuconostoc, Acetobacter, Lactobacillus kefiri and Lactobacillus kefiranofaciens. Additionally, it also contains yeast species such as Saccharomyces cerevisiae, Candida colliculosa, Candida inconspicua, Candida magnoliae, Kluyveromyces lactis, Kluyveromyces maxianus and Candida kefir. Kefir is prepared by inoculation of milk with kefir grains which contain the composition of a wide variety of bacteria and yeasts as mentioned. These microorganisms bind together with casein and complex sugars through a matrix of polysaccharides called kefiran. Kefiran has antibacterial, anti-diabetic and immune-modulating properties as well as roles as a thickener, gelling agent and emulsifier. During fermentation in milk, the kefir grains increase in biomass by 5-7% and later can be separated from the fermented milk and be reused. Kefir can be prepared from any type of milk but cow milk is more commonly used. During fermentation, lactic acid, ethanol, CO2 and other flavour compounds such as acetaldehyde, diacetyl and acetoin are produced. Good quality kefir has pourable consistency, sour taste, marginally yeasty flavour and prickly sensation due to CO2. Kefir, in recent years, is being widely used due to the presence of probiotic microorganisms and health-promoting bacteria. Kefir provides amazing health benefits, such as lowering cholesterol levels, prevention of diarrhoea and can be consumed by lactose-intolerant people. As kefir has been extensively studied and is potentially a new source of probiotics, there are various new possibilities for its applications. One of the biggest kefir companies, Lifeway is responsible for making kefir a beloved beverage in the United States, Canada, the UK and throughout Europe. Nowadays, it is available in frozen form and even in cheese form. Taking into consideration its vast array of helpful biological properties, researchers are finding more and more beneficial properties of kefir and kefiran, with the aim of indulging more consumers and therefore developing newer and better products in order to improve as well as safeguard consumers’ health.

Keywords: Kefir grains, Kefiran, Probiotics, Fermentation, Lactobacillus

Citation:
Pragyananda Choudhury. Kefir and its significance. The Torch. 2021. 2(42). Available from:
https://www.styvalley.com/pub/magazines/torch/read/kefir-and-its-significance.