

# **Chemical profile and antioxidant activity of the kombucha beverage derived from white, green, black and red tea**

## **ABSTRACT**

Kombucha is a fermented tea beverage prepared as a result of the symbiotic nature of bacterial cultures and yeast, the so-called SCOBY (Symbiotic Cultures of Bacteria and Yeasts). Kombucha is characterised by rich chemical content and healthy properties. It includes organic acids, minerals and vitamins originating mainly from tea, amino acids, and biologically active compounds—polyphenols in particular. Kombucha is prepared mainly in the form of black tea, but other tea types are increasingly often used as well, which can significantly impact its content and health benefits. This work shows that the type of tea has a significant influence on the parameters associated with the antioxidant potential, pH, as well as the content of acetic acid, alcohol or sugar. Red tea and green tea on the 1st and 14th day of fermentation are a particularly prominent source of antioxidants, especially polyphenols, including flavonoids. Therefore, the choice of other tea types than the traditionally used black tea and the subjection of these tea types to fermentation seems to be beneficial in terms of the healthy properties of kombucha.