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ABSTRACTS

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INFLUENCE OF WATER HARDNESS ON THE PROCESS OF FERMENTATION BY MEDUSOMYCES GISEVII CONSORTIUM

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Abstract:
According to Zion Market Research, the global kombucha market in 2016was valued at approximately 1.062 billion US dollars and is expected to reach approximately 2.5 billion in 2022 with an annual increase of about 25.0%
It is believed that kombucha has the healing and preventive properties:improves the activity of the gastrointestinal tract, inhibits putrefactive microflora,strengthens intestinal peristalsis, normalizes stomach acidity.
The basis for the production of kombucha is water. The technology of fermented drinks, as a rule, does not involve additional water treatment. However, the chemical composition of the source water has a significant impact on the technological process and indicators of the finished product. Based on the results of studies of the dynamics of wort fermentation, it was established that high water hardness negatively affects the fermentation process by Medusomyces gisevii culture and worsens the organoleptic qualities of the finished drink. It was established that the most intensive fermentation process occurred from the fourth to the eighth day, which can be explained by the logarithmic phase of growth of yeast cells as a component of the Medusomyces gisevii consortium.
It was found, that the high water hardness had a negative effect on the fermentation caused by the Medusomyces gisevii yeast culture and made the organoleptic qualities of the finished drink worse. There was defined the correlation between water indicators, wort fermentation dynamics and organoleptic evaluation of finished drinks.

Key words: *non-alcoholic fermented drinks; kombucha; Medusomyces gisevii*; *wate*.