

THE DOMINANT FACTORS DURING WATER TREATMENT IN THE BEVERAGE PRODUCTION

Iryna Samchenko¹
Svitlana Oliynyk²

DOI: https://doi.org/10.30525/978-9934-588-11-2_14

Ensuring high quality and durability of products in alcoholic beverage production is achieved using the main ingredients: ethyl rectified spirit of the varieties of «Wheat tear» or «Luxury» and prepared water with high organoleptic indicators, balanced microcomponents cationic-anionic composition [1, p. 325].

At each stage of the technological process of production of alcoholic beverages, including water treatment, it is necessary to determine the dominant factors that will largely determine the quality of treated water [2, p. 7].

So the dominant factors for individual air-conditioning units of water during:

– mechanical purification are mechanical, structural, physico-chemical characteristics and chemical resistance filter media, the subtlety and flow velocity, the specific volume of the filtrate before reaching the limit values for opacity and tabarlet, timeliness of regeneration and the like;

– deironing and demangeat is structural and physico-chemical characteristics of filter materials, the filtration rate and the ability to modify a specific volume of the filtrate before reaching the limit values for iron and manganese content, determination of the possibility and efficiency of regeneration and the like;

– sorption purification are mechanical, structural, physicochemical and sorption characteristics of the sorption material, the limit values for sorbolene substances, the effectiveness of one or more sorbents to various directed action, the specific filtrate volume to achieve the limit values for permanganate Okinawans, the filtration rate, the possibility of regeneration, the impact of regenerating agents, etc.);

– mitigation is the physico-chemical characteristics of ion exchange material, the specific volume of softened water, filtration rate and regeneration efficiency, the minimum hardness value of treated water in the filtration cycle, the possibility of contamination of the ion exchanger with organic substances and the like;

¹ National University of Food Technologies, Ukraine

² National University of Food Technologies, Ukraine

– denitrification processes are the physico-chemical parameters of the sorption material, the specific volume denitrification water, filtration rate and the ability and timeliness of regeneration, the minimum value for nitrogen-containing substances in the filter cycle and so on;

– demineralization vorotnavank method is material and selectivity of the membranes, adjusting the flow at permeate and concentrate in an automated manner, the flow rate of demineralized water, the use of regeneration and antiscalants, the need for blocks poperedni cleaning and the like;

– disinfection on the coefficient of efficiency, selectivity, specific output of disinfected water, prolonged duration of effect and the like;

– conditioning for optimal microcomponents cationic-anionic composition and to evaluate the effectiveness and homogeneity of the prepared water

– other stages of water treatment is the use of pumps, the influence of the material of the piping systems are available using membrane elements, and the like.

Identified dominant factors in water treatment contributes to obtaining treated water for the high stability of the finished product.

References:

1. Ivanov, S. V., Domaracki, V. A., Pribilski, V. L., etc. (2012). Innovative technology of fermentation products and wine-making: proc. (Ed. S. V. Ivanov). Kyiv, 487 p.

2. Kovalchuk, V. P. (2001). Of the comprehensive program of quality improvement of alcoholic beverages. *Alcohol and tobacco*, no 2, pp. 6-8.