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# THE INFLUENCE OF TOMATIN BAC ON THE PROCESS OF ALCOHOLIC FERMENTATION OF WASTE BIOMAS

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The quantity of agricultural waste has been rising rapidly all over the world, many studies has revealed that fruits and vegetables are the main source of bioactive compounds; in most cases, wastes and byproducts generated by the food processing industry present similar or a higher content of antioxidant compounds. Therefore, there is an increasing interest in finding new ways for their processing toward safely upgrading these wastes for recovering high-value-added products with a sustainable approach. Among food waste, the abundance of bioactive compounds in byproducts derived from tomato suggests possibility of utilizing them as a low-cost source of antioxidants as functional ingredients. The solid residue remaining after the industrial processing of tomatoes (*Solanum lycopersicum* L.), tomato pomace, consists of large amounts of tomato peels and seeds that currently find use as animal feed and fertilizers or are sent to landfill. However, it is still rich in important antioxidant present in the ripened tomato. In this line, numerous approaches have been proposed for the valorization of the unused parts of tomato in various sectors. In the past, people added these byproducts as compost to the soil for agricultural purposes, thus allowing the recycling of nutrients. Today, instead, because of the huge increase in the accumulation of large amounts of waste matter, reducing waste is among the efforts to relieve the pressure on natural resources and move toward more sustainable food systems. So, a critical and up-to-date review has been conducted on the latest individual valorization technologies aimed at the generation of value-added by-products from industrial food wastes. Waste treatment in wine and alcohol industry is a current problem in Republic of Moldova. The annual volumes of the production and accumulation of liquid wastes are considerable.

The aim of the scientifical research is to examine the associated advantages and drawbacks of each technique separately along with the assessment of process parameters affecting the efficiency of the generation of the bio-based products. Research of the influence of tomatine BAC on the process of alcoholic fermentation in the laboratory conditions. The biomass used was the waste from the ethyl alcohol production “GARMA GRUP” L.L.C. company. The testing of tomatine BAC was performed in order to explore possible activating or inhibiting effect on the alcoholic fermentation process.

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