

FEATURES OF WASTE-FREE USE OF PRODUCTS IN RESTAURANT ESTABLISHMENTS

Darmohrai A.

Stukalska N.M., Ph.d.

*National University of Food Technology (NUHT),
Kyiv*

The popularity of waste-free production is gaining momentum every day. This trend helps to reduce production and disposal costs in production. In addition, it raises the prestige of restaurants or catering services, because in recent years, consumers are becoming more and more interested in environmental issues, including food waste. According to a study by Purdue University, about 70% of restaurant diners are willing to spend more when they learn that they use an ecological approach to their food or service.

According to UNEP (United Nations Environment Program), in 2019, about 931 mln tons of food fell into landfill, which is approximately 17% of all food produced in the world, these statistics are impressive. Speaking of statistics, we note the research of the All-Ukrainian Ecological League, quantitative losses of food products and waste from them per year are about 30% of grain, 40-50% for root crops, fruits and vegetables, 20% for oilseeds, meat and dairy products, and 30 % for fish. Low consumption culture, lack of effective methods to prevent the formation of food waste, their utilization and losses have led us to the situation in which we are now.

Today, there are already various techniques and ways to reduce food waste and extend the shelf life of food products.

Fermented foods and beverages are gaining popularity. This method not only allows you to save food, but also their use is beneficial for the human body. Acids, which are involved in fermentation, not only destroy harmful microorganisms, but also lengthen the shelf life of products. The fermentation process also creates unique flavors and aromas.

Many people say that freezing food leads to the loss of its nutritional value and biological value, but this is not completely true. If you look deeper, you can see that quick-frozen high quality ingredients are in most cases of better quality than fresh second-class food. So, freezing is an efficient way to use the resource efficiently, and frozen food is often a quick way to prepare it. But you should not forget to update the frozen stocks to maintain the quality of the dishes.

Speaking about methods of preserving products, mention should be made of the Su-ot technology (sous vide, from French – «under vacuum»). And so, Su-ot is one of the cooking methods in which products are placed in a sealed plastic bag and cooked in a steam bath or oven at a temperature below 100 °C. This is a good alternative, as the food

retains its flavor and texture, the food is cooked up to a certain stage, tangible economic benefits are observed, and production losses are optimized.

Another way to reduce losses is to include dishes from local and seasonal vegetables, fruits, etc. in the menu. Now in restaurants, both roots and leaves of plants are used. For example, carrot and radish leaves can be used in Pesto sauce technology.

Starting to introduce different portions of dishes and side dishes into the menu will help reduce the amount of food that the consumer can leave on the plate. This method also brings benefits for the restaurant itself. After all, the cost of production and return on investment will decrease.

Now the establishments of the restaurant industry use various methods and directions to reduce the waste of their production: FIFO «first in, first out» (first in, first out), Zero Waste, Sustainability.

Restaurateurs approach food waste with originality. For example, in the spring of 2021, a pizzeria called Shuggie`s Trash Pie & Natural Wine opened in San Francisco, where cooking technology uses food waste, «objectionable» vegetables and fruits (unusual shapes and sizes, too small or too large, curved etc.). Also, agricultural by-products have found their application: carrot tops, waste grain, etc., which are usually thrown away.

You should also talk about the EU project «REFRESH» aimed at reducing production retirement. Its member, De Verspillingsfabriek, is trying to transform leftover food into new consumer products. As company founder Bob Hatten says, «The tops and bottoms of tomatoes are always cut off and thrown away. We get them and make delicious sauces and soups from them. We also use, for example, carrots, which are too large for the food industry and for retail» And this is just one example.

What is happening on the Ukrainian market? Here we should remember the well-known restaurant «Sofa». Which in its new menu uses the principles of Zero Waste. They sprout carrot tops, make citrus peel jam and serve with tea. As a garnish for fish, they serve celery noodles, which are boiled in broth with the skins left after peeling the potatoes.

Now in Ukraine, one after another, establishments are opening, in their work they use the methods of responsible consumption and waste reduction. Every year, the idea is consolidated that production with an almost complete absence of waste is possible, although it requires appropriate investments and specialists. But it all starts small, and step by step, we will achieve the desired goal. After all, we can already observe how the idea of waste-free production brings its results.

Conclusion. This thesis substantiates the expediency of using new technologies for the production and storage of food products to reduce its losses and preserve useful properties. The given examples of the application of new methods in the field of restaurant industry and their advantages over traditional methods of preparation and storage of products.