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РОЗДІЛ 7

ТОВАРОЗНАВСТВО Й ЕКСПЕРТИЗА ТОВАРІВ

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ANALYSIS OF GROUND COFFEE QUALITY BY USING COFFEE CUPPING

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Coffee (Coffea) is the major genus of the Rubiaceae family, which includes well over 500 genera and over 6,000 species. The genus Coffea itself comprises numerous species. Only two of them are currently of real economic importance: *Coffea Arabica* (60 %...70 % of world production) and *Coffea Canephora* (or coffea robusta, making up 30 %...40 % of world production).

Two other species are traded to a very limited extent: Coffea liberica (liberica), and coffea excelsa (excelsa).

Coffee has been for decades the most commercialized food product and most widely consumed beverage in the world. The characteristic flavor and richness of coffee aroma make it a unique beverage, with almost a thousand volatile compounds identified in roasted coffee.

Sensorial analysis is the use of the human sensory system to identify and measure the flavor of foods. While the human sensory system is one of the most sophisticated instruments, its very sensitivity makes it subject to a multitude of interferences, both physical and psychological. A good sensory test must be carefully conducted under controlled conditions using a panel so that several separate sensory systems can evaluate the samples. Coffee professionals refer to the process as «cupping» or «tasting» depending on how the sample is prepared.

Cupping is one of the coffee tasting techniques used by cuppers to evaluate coffee aroma and the flavor profile of a coffee.

A standard coffee cupping procedure involves deeply sniffing the coffee, then loudly slurping the coffee so it spreads to the back of the tongue. The coffee taster attempts to measure aspects of the coffee's taste, specifically the *body* (the texture or mouthfeel, such as oiliness), *sweetness, acidity* (a sharp and tangy feeling, like when biting into an orange), *flavour* (the characters in the cup), and *aftertaste*.

For traditional capping, about 10 g of ground coffee is brewed in cups containing about 230 g of boiling water. The roast should be similar for all of the coffees evaluated. During an important coffee cupping session the roast similarity can be verified visually by grinding a portion of each sample and lining the coffee samples up next to each other on a black sheet of paper.

Taste and aroma are described by the special descriptions. Coffee aroma can be characterized like ashy, burnt/smoky, chemical, chocolate, caramel, cereal/malty, earthy, floral, fruity, grassy, nutty, rotten, spicy, tobacco etc. For the characteristic of coffee taste are using such descriptions: acidity, bitterness, sweetness, saltiness and sourness.

Body - used to describe the physical properties of the beverage.

Astringency – an after-taste sensation consistent with a dry feeling in the mouth, undesirable in coffee.

At the end of the coffee cupping, tasters fill out special forms. Each sample is assigned a final grade by adding the points determined in the previous paragraphs stages.

The purpose of coffee capping is not to determine the best sample of coffee among the samples. This process is aimed at clarifying the quality criteria for coffee and disseminating information about them among consumers.

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QUALITY AND FOOD SAFETY

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Product quality is a combination of product features that determine its suitability to meet certain requirements as directed.

The quality of the product is characterized by consistency with organoleptic and physico-chemical parameters prescribed by standards and technical specifications. The quality of any food product is recognized for its specific features that are called quality indicators.

The quality of food depends on the production factors and the growth conditions of plants, quality of raw materials, half-finished product, the technology of its processing and equipment; the distribution factors – storage quality, transportation, the consumption factors – quality of short-term storage, consumption.

The quality of food is determined by organoleptic and laboratory methods:

Organoleptic method is a method of determining the quality of products through the senses. It is simple to use, affordable, does not require sophisticated laboratory equipment. The disadvantage of this method is subjective features of the study, the inability to obtain a complete picture of the quality of the product.

Laboratory method allows using instruments, reagents to determine the physical (specific gravity, density of products, their melting temperature, viscosity) and chemical (protein, fat, carbohydrates, minerals, harmful and toxic impurities), microbiological (presence of pathogens and those that cause food spoilage), physiological features, food value, digestibility. Difficult to use, because certain laboratory conditions are needed.

It's impossible to obtain high quality during the violation food processing even using high-quality raw materials.

Safety (harmless) of the product is a lack of harmful substances to the human body.

Food that lack harmful substances is called environmentally friendly.

Products that contain very few harmful substances are considered harmless. The maximum permissible levels of harmful substances are determined by special documents of the Ministry of Health.

Hazardous (harmful) products contain harmful substances above the norms set out in these documents. Such products should be destroyed (some of them can be used in the transforming industry). Harmful contaminants of food and drinking water are: heavy metals, nitrates, nitrites, pesticides, radionuclides, antibiotics, hormones, preservatives, toxic substances, microorganisms.

Pollutants are in gaseous, liquid and solid emissions in the waste industry, electric power plants, vehicles and domestic waste. They fall into products by the use of organic and mineral fertilizers and pesticides. Contamination of food with radionuclides caused by nuclear

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