

## The Science of Making Perfume: Inside Modern Perfume Labs

Olena Terebilo, Maria Molozhon

*National University of Food Technologies*

**Introduction.** Since the beginning of recorded history, humans have attempted to mask or enhance their own odour by using perfume, which emulates nature's pleasant smells. Many natural and man-made materials have been used to make perfume to apply to the skin and clothing, to put in cleaners and cosmetics, or to scent the air. The word perfume derives from the Latin 'perfumare', meaning 'to smoke through'. Perfumery, as the art of making perfumes, began in ancient Mesopotamia and Egypt, and was further refined by the Romans and Persians.

**Materials and methods.** In the research, the methods of system analysis, synthesis and generalization were used. Information base of the research serves the works of Ukrainian and foreign scientists, scientific articles and publications.

**Results and discussion.** Natural ingredients – flowers, grasses, spices, fruit, wood, roots, resins, balsams, leaves, gums, and animal secretions as well as resources like alcohol, petrochemicals, coal, and coal tars are used in the manufacture of perfumes. Alcohol and sometimes water are used to dilute ingredients in perfumes. It is the ratio of alcohol to scent that determines whether the perfume is 'toilet water' or cologne. The Manufacturing process consists of collection, extraction (oils are extracted from plant substances by several methods: steam distillation, solvent extraction, enfleurage, maceration, and expression), aging (fine perfume is often aged for several months or even years after it is blended). Quality control is an important part of the process of creating the fragrance. Perfumes depend heavily on harvests of plant substances and the availability of animal products, perfumery can often turn risky. Synthetic perfumes have allowed perfumers more freedom and stability in their craft. In most cases, perfumers have undergone years of training, during which they have arduously memorized the smells, characteristics and properties of a million chemicals. In fact, synthetic chemicals are often less volatile than natural chemicals, which alter in smell over time. The use of it and oils eliminates the need to extract oils from animals and removes the risk of a bad plant harvest, saving much expense and the lives of many animals.

Using perfume to heal, make people feel good, and improve relationships between the people are the new frontiers being explored by the industry. The sense of smell is considered a right brain activity, which rules emotions, memory, and creativity. Aromatherapy is a smelling oils and fragrances to cure physical and emotional problems – is being revived to help balance hormonal and body energy. The theory behind aromatherapy states that using essential oils helps bolster the immune system when inhaled or applied topically. Smelling sweet smells also affects one's mood and can be used as a form of psychotherapy.

Creation of smell is an art, but not a science. When you create a smell you need to focus largely on the aesthetic sense, intuition and imagination. Perfumes sold under the name of the designer, a celebrity or a company, which released them on the market. The United States is the world's largest perfume market with annual sales totalling several billions of dollars. Most Popular Perfume Brands are Calvin Klein, Yves Saint Laurent, Dolce & Gabbana, Giorgio Armani, Burberry, Givenchy, Christian Dior, Hugo Boss.

**Conclusions.** The use of perfume has led to a revolution in the people's life. New types of perfume appear very quickly and become in demand in the market. And subsequently, the magic of perfume is its transformative quality.