INNOVATIONS THAT COULD BUILD THE FOOD OF FUTURE

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It's no secret that in the future, humanity will face problems associated with global warming. We will face prolonged periods of heat and drought, followed by large-scale floods. All this does not bode well for particularly favorable conditions for animal husbandry and crop production, and the population of our planet will grow by another two billion people, and everyone will need to be fed with. Scientists are puzzled by the creation of more sustainable vegetables and grains, the development of new technologies and the search for nutritional alternatives. Emerging trends in bioengineering, medicine, food processing and cooking technologies will all affect what we eat. It is difficult to predict what exactly will become popular in 50-100 years. Most likely, it will be something that exists at the present time, but it is not used on such a large scale, so it is still possible to make some predictions.

Perennial cereals

Although many fruits, nuts and fodder crops are perennials, most of the crops that provide more than 70% of the human diet (primarily wheat, rice, corn) have to be planted annualy, which requires many resources. Many scientists argue that it is entirely possible to create perennial crops that require less fertilizer and herbicides than annual crops, making global agriculture more sustainable. Currently, perennial crops are being developed in Argentina, Australia, China, India, Sweden and the United States.

Urban farms

By 2050, the population of our planet will be about 9.1 billion people. To feed them, it will take even more agricultural land, which is already scarce on the planet. Urban farms already exist today in the courtyards and on the rooftops of residential and office buildings. A good example is the Japanese staffing company Pasona Group, which built an office building that, in addition to a work space, accommodates 4,000 square meters of vegetation, where rice, fruits and vegetables are grown. Crops are grown under special lamps, automatic sprinklers, hydroponic installations and climate control systems are used. All products go to the table in the employee cafe [1].

Inhaled food

Harvard university professor David Edwards invented a device called Le Whif that sprays inhaled dark chocolate. The product became a bestseller in the European market, and consumers unanimously claimed that they had restrained their appetites for sweets. The fashionable novelty reached North America, where Canadian chef Norman Aitken improved the apparatus and created Le Whaf on its basis. His device is a vase with a built-in ultrasonic generator. Food (most often soup) is placed inside and, under the influence of ultrasound, turns into a kind of fog. At this moment, the client, using the tube, should inhale it. Tasting food in such an unusual way, you can distinguish the taste of both individual ingredients and the whole dish, and in 10 minutes of inhalation, you can get only about 200 calories.

Food printed on a 3D printer

Still in May 2013 NASA announced the development of a 3D food printing technology. Its main idea is that astronauts on long missions can print ready-made mouth-watering meals, instead of eating them out of tubes. The original goal of a joint project between the space agency and an ambitious Texas engineering bureau was to make pizza using a 3D printer, and they got it. The process of preparing a classic Italian dish was shown at the local Texas SXSW Eco conference. [2]

Innovative fish farms

The fish farms of the future are likely to be giant closed biological systems combined with hydroponic plants for growing vegetables and fruits. As you know, the waste products of fish lower the pH, while plants, on the contrary, increase it, which allows you to keep the balance. Such closed installations, which are already in use in Israel, save fresh water and reduce the cost of both fish production and growing crops. [1]

Edible packaging

51-year-old bioengineer from Harvard David Edwards has found a solution to the problem. His brainchild, WikiCell, is an edible packaging for everything from soup and yogurt to alcohol. “We can wrap any edible substance or drink with a film like grape skin that is completely edible,” he says. Inspired by the structure of a cell that contains water, Edwards created a material that will keep the food fresh and keep bacteria and other substances out.[1]

Although a lot of products listed above seem to be incredible, all of them have great opportunities to become the most popular product in the future.

References

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