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# FOOD WASTE

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Farming has changed the planet more than any other human activity. Today we produce much more food than centuries ago, but there are still nearly one billion people who are hungry every day. Mankind is to address the issues of a growing population and widespread poverty. For this purpose new methods of growing food are invented. But a bit part of answer is on the plates in front of us, since up to half the food produced in the rich world is wasted or thrown away.

For example a comprehensive new review of food waste in the People's Republic of China has concluded that about 19 of every 100 pounds of grain produced in the country go to waste, with related losses of water for irrigation and farmland productivity. The overall loss meant the waste of an estimated 177 billion cubic yards of water used to produce food grown but never eaten -- a volume equal to the amount of water Canadian farmers use to grow all their crops.

The researchers found that US per capita food waste has progressively increased by about 50% since 1974. Previous calculations are likely to have underestimated food waste by as much as 25% in recent years.

Also in Toronto, Canada, 210 million kilograms of food—equivalent in weight to 35,000 African elephants—is disposed of every year. Whereas 75 percent of organic waste in Toronto is composted, 32,000 tons are disposed of in landfills.

And almost 50% of fruits and vegetables in the EU are not consumed.

Damage to the environment is other problem connected with wasted food. There isn't enough clean water everywhere on Earth at present. We know that food waste contributes to excess consumption of water. Methane and carbon dioxide emissions from decomposing food could impact global climate change. That is it’s better to replant trees on land.

So reducing food waste is one of the highest priorities on the environmental agenda.

There are different kinds of food waste. We can lose food while producing it. Approximately 30 to 40 percent of raw food materials and ingredients are lost between the points of production and consumption. It can be accidental damage during threshing or fruit picking, damage can be caused by insects, mechanical damage or spillage during harvest operation and crops sorted out. The lack of tuning between supply and demand is another reason for losses.

During postharvest handling and processing 5, 5% of the fresh produce gets lost, by for example bad storage conditions, juice production, or during process interruptions and accidental spillage. In the distribution chain and supermarkets another 7, 5% is being lost due to degradation and expiring 'best-before-dates'.

13% of what is initially produced gets lost due to consumers behavior. They throw away still edible fruits and vegetables, or waste food due to storing the fresh produce too long or at a wrong temperature.

At present there are many ways to cut that wastage.

For instance scientists of Ghent University and Wageningen University try to reduce the losses within the fruits and vegetables chain by developing statistical models. Predicting the degradation and the safety of fresh produce, they can improve the planning and logistics of food processors, transporters and supermarkets.

Also the consumer can help to reduce the losses. For examples people can eat seasonal food. If you eat seasonally, then fresh produce will not have to be transported for a long distance, so it can be stored longer. A weekly leftover day helps to reduce the leftovers. If you buy and cook not more than necessary it will obviously reduce losses.

To my mind the best solution to this problem would be to divert excess food to those who really need it. This tract deftly illuminates the global consequences of our choices about what to eat – and what to throw away. More efficient use of the food production chain and a decrease in the amount of food losses will dramatically help maintaining the planet's natural resources and improve people's lives.

The second type of food waste is unmanaged wastes from food industry. For instance sunflower seed husks, pomegranate or banana peels and so on. But modern science and technology can provide sustainable solutions to these things as well.

One of such solutions is obtaining bio-gas from food industry waste. Some technological centres exploit the enormous potential of obtaining biogas from the organic matter contained in agricultural food waste. They obtain hydrogen and methane from the same combined fermentation process from sludge, from purifying plants or food waste from mass consumption. The emissions of greenhouse gases into the atmosphere are reduced, smells are also considerably reduced.

There is an organization called The Climate Group at the City University of Hong Kong, which is developing a new kind of food biorefinery. They try to change food waste into a key ingredient for making plastics, laundry detergents, medicines and scores of other everyday products. In addition the new technology could have numerous environmental benefits. This concept could become very important in future.

As for sunflower seed husks, they could be used as an environmentally friendly filler, or aggregate, for concrete according to the team of researchers in Turkey. The Turkish scientists demonstrated that the use of husks reduces the density of concrete as well as boosts the material's resistance to cracking after exposure to icy then thawing conditions.

Pomegranate peels can make a nutritious feed supplement for cattle, researchers in Israel report. Therefore it may yield meat with higher levels of beneficial antioxidants. Due to these antioxidants consumption of pomegranate products may help fight cancer, infections, and other diseases in humans.

This presentation is designed to draw your attention to the problem of food waste and help you make informed decisions about food you eat every day.

**Список использованных источников**

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