

How can we feed our genes??

Sustainability subtopics:

1. Food waste (Green)

Food waste occurs everywhere: at harvest, during storage and transport, in supermarkets and the hospitality industry, but especially at the consumers' home. The average Dutch person throws away around 41 kg of good food every year, which is almost half of all waste! Together we can reduce and prevent food waste in various ways such as developing new techniques and technologies or by stimulating behavioural change amongst consumers.

What is the amount of food waste in the other participating country's?

Several techniques can be found to decrease food waste. F.i. Indicators on food packages that give the consumer information about the freshness of the product. This is a new technique. Is it on the market yet? How does it work?

What to do about food waste in your school? Is there food waste in your school? In what way? What are the reasons for this waste of food? How to prevent this? Write a proposal for the school to decrease the amount of food waste in your school.

2. Protein transition (Yellow)

How can human protein consumption become more sustainable? Our current meat consumption is not sustainable, because a lot of land, water and feed is needed to produce animal proteins. It is a challenge to make the society eat differently and think about alternatives to animal proteins. Fortunately, there are plenty of options for alternative proteins, such as seaweed, algae, insects or pulses.



As the world population grows, it becomes more difficult to feed all mouths. By 2050, the world population is expected to have grown by two billion, to a total of ten billion people. In a world where the climate is changing, resources are becoming scarce and the amount of agricultural land cannot be expanded much further, the resources and food that are available must be handled more carefully.

As the world population grows, it becomes more difficult to feed all mouths. By 2050, the world population is expected to have grown by two billion, to a total of ten billion people. In a world where the climate is changing, resources are becoming scarce and the amount of agricultural land cannot be expanded much further, the resources and food that are available must be handled more carefully.

If you would make a meatless burger:

How can you match the structure and taste of meat in a meat substitute?

There are alternatives for meat. Which protein will you use to make a meatless burger like soja, insects or algae? Make a small research about the pro's and con's of these alternatives.

If you want to sell your idea to a big Burger company, what arguments do you need to persuade the ceo of this company? The ceo will judge your burger on the various aspects (health, sustainability, consumer needs, etc.).

3 Sustainability in de food chain from land to plate. (Blue)

During the process of wheat/corn growing on the field to the moment that it lays on your plate as a pasta or piece of bread, a load of choices can be made to increase the sustainability in a way of food waste, energy loss or use of chemicals.

Describe the process from wheat to bread. Start with growing wheat on the land using fertilizer and pesticides, then harvest the wheat to make it into bread. Think about transport, turn wheat into flour and flour into bread.

4 How can we use Crispr-Cas to produce more sustainable food? (Red)

<https://www.youtube.com/watch?v=2pp17E4E-O8>

Watch the video about Crispr-cas. In what way can we use this technique to increase food production (use as an example tomatoes) and decrease food waste and energy loss? Which genes can we put into these tomatoes that make them more sustainable? Where do we get those genes from?

5 Supermarkets and sustainability (White)

Broccoli produced in the Netherlands are wrapped in plastic in Italy and send back to the Dutch supermarkets!

Sustainability is for supermarkets more or less a magic word to sell products, but are supermarkets as good as they will let you know?

In this topic you will look inside your local supermarket and test if they are as sustainable as they say they are. What are the credentials for being a sustainable product? (local, insecticides.....). What is the role of the EU in this? What are the differences between our countries? Do they sell Dutch tomatoes in Estonia and Germany, where do the Spanish oranges go to?