



# FoodSafety4EU

MULTI-STAKEHOLDER PLATFORM  
FOR FOOD SAFETY IN EUROPE

## Food4Future\_cz

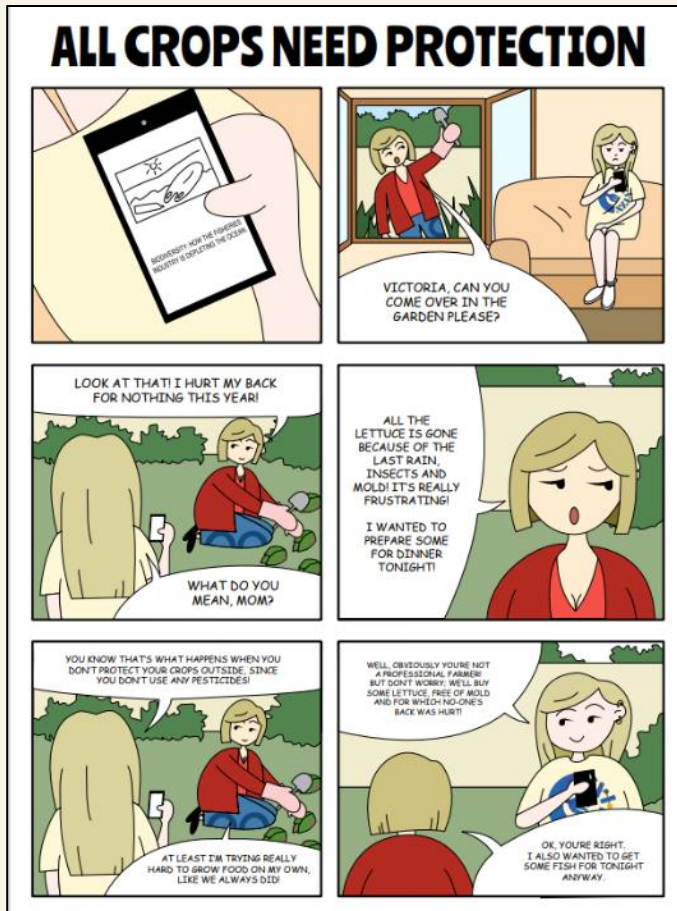




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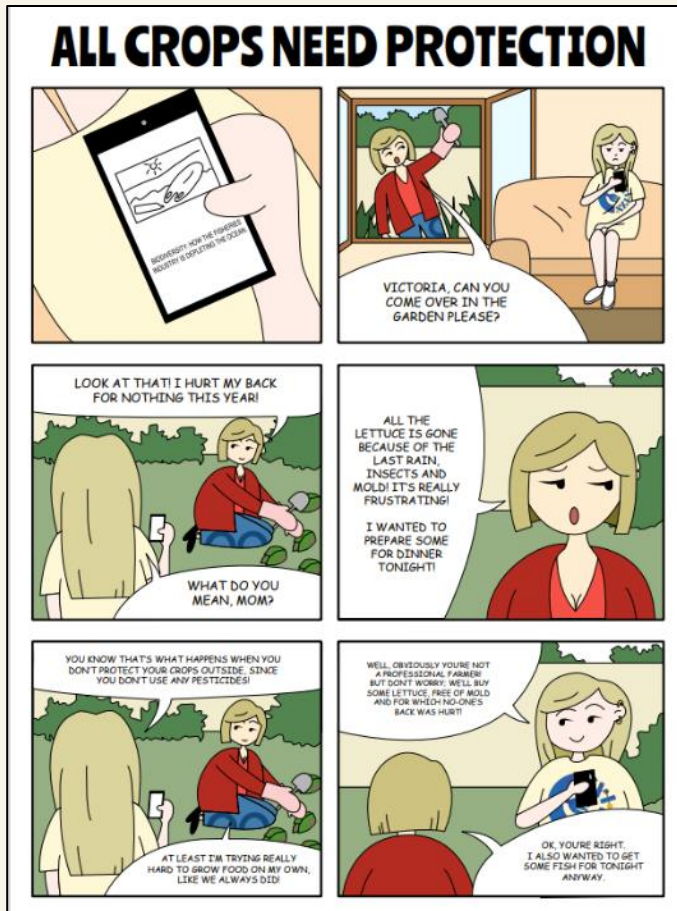
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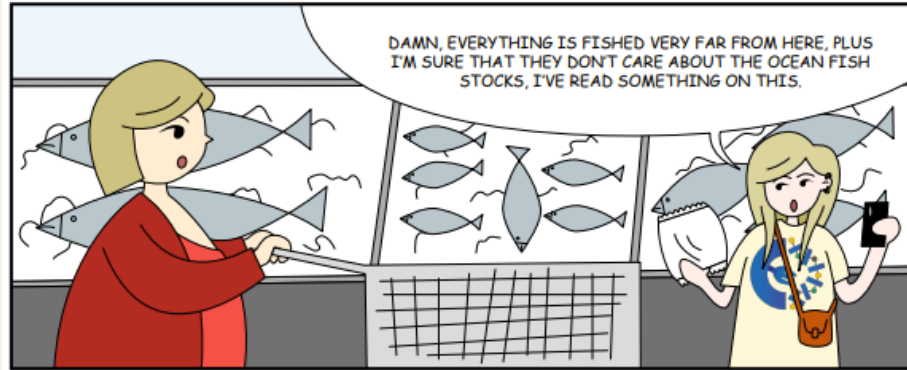


# Chapter 1: All Crops Need Protection

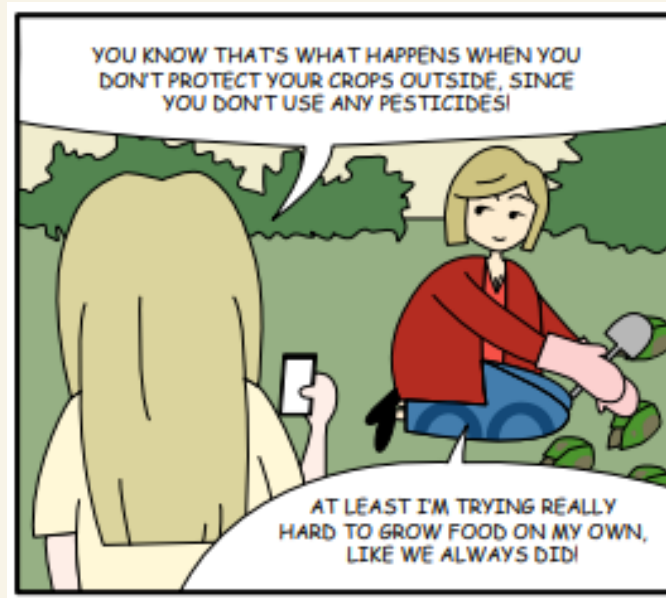




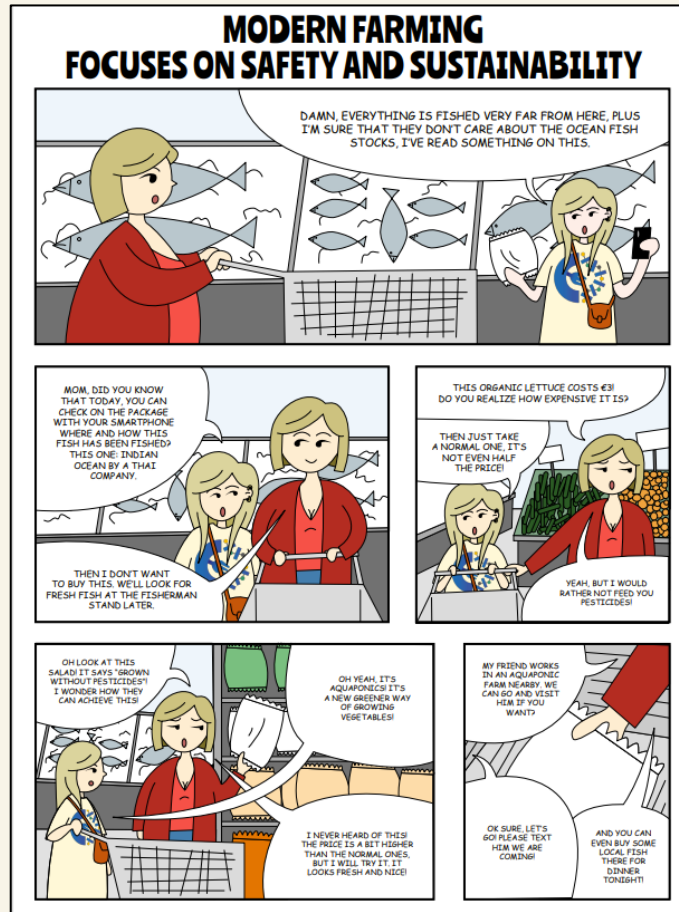
- Food pyramid:** shows you how to balance your intake of fruits and vegetables; grains; protein rich foods; dairy foods; fats and oils; and foods you should eat very little of.
- Macronutrients** provide carbohydrates, fats and proteins and **micronutrients** provide energy and support the functioning of our body
- Sustainable Healthy Diets:** promote all dimensions of individuals' health and wellbeing; low environmental impact; accessible, affordable, safe and equitable; and culturally acceptable (FAO and WHO).



- Some Europeans eat a lot of fish, other very little = large differences in fish consumption!
- $\frac{3}{4}$  of fish consumed is from **wild fisheries**, while the remaining  $\frac{1}{4}$  is from aquaculture.
- Aquaculture** = controlled form of fish cultivation.
- over-fishing/illegal fishing, unreported and unregulated fishing **reduces our fish stocks in our oceans.**
- 70% of our **fish consumption** is imported.

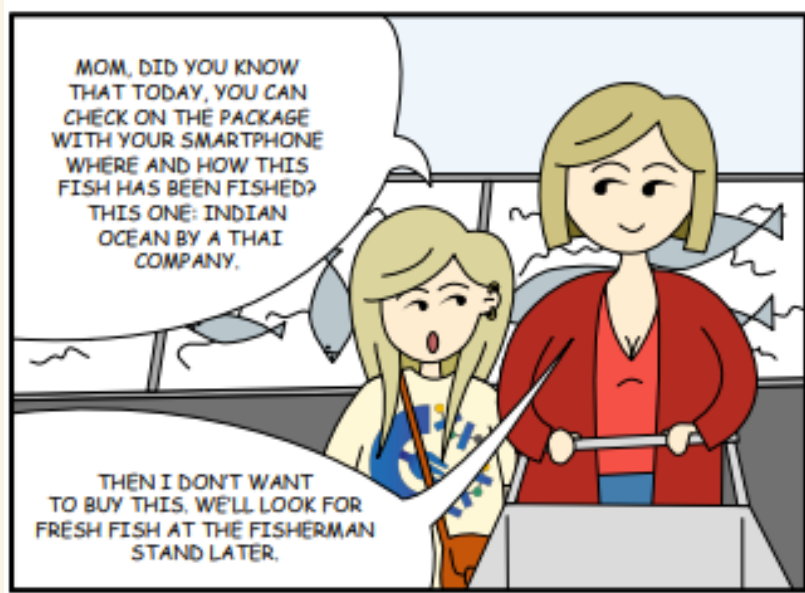


- **Pesticides** is the most common type of pest control used to either kill pests or hinder their development.
- Depending on the pest they are intended to control, there are different kinds of pesticides: for instance, **insecticides** are used to control insects, **herbicides** to control plants, **fungicides** to control fungi, or **bactericides** to control bacteria.
- Pesticides can pose a **risk to health** – therefore there are limits to how much pesticides farmers are allowed to use. These limits are called “**maximum residue levels**” (abbreviated MRLs) and the rules are laid down in specific regulations in the European Union and apply both to farmers in the EU as well as to imported food.
- **Labels** allow producers to inform consumers about pesticide usage, but often it is difficult for consumers to make sense of such environmental labels!



## Chapter 2: Modern Farming Focusses on Safety and Sustainability





- **Transportation:** depending on whether the fish are alive, fresh, frozen, dried, smoked, or canned, different means of transportation are usually used, i.e. trucks, boats, ships, air.
- Transportation of fish from long distances by ship or air is yet a major source of greenhouse gas emissions from fuels such as coal, oil, and natural gas, and is responsible for a big portion of our **carbon footprint**.
- **European Green Deal** is a roadmap of actions to become the first climate-neutral continent by 2050 moving to a circular economy, stop climate change, turn back biodiversity loss and cut pollution.

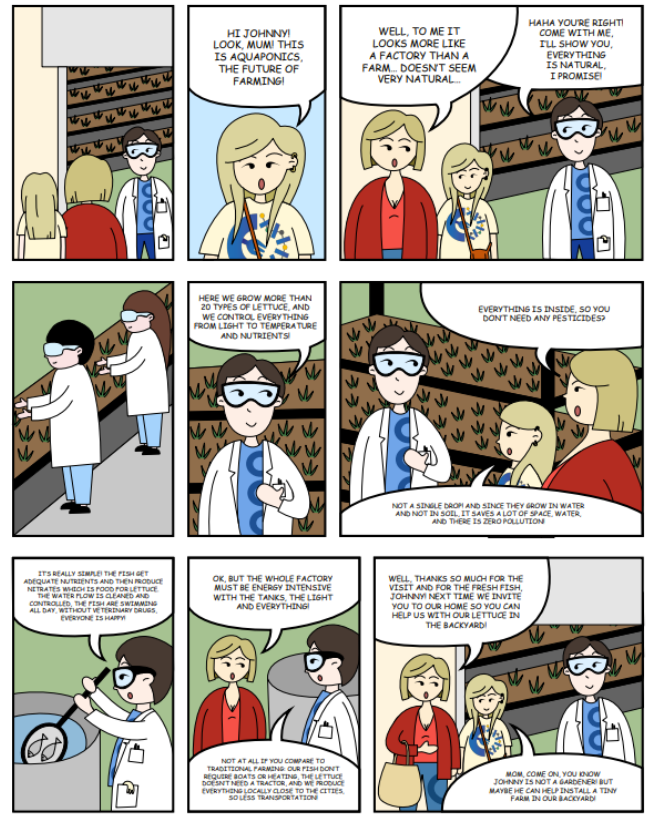


- In the **Farm to Fork Strategy** the links between healthy people, societies and our planet are recognised.
- the transition to **sustainable food systems** means ensuring that the food chain has a neutral or positive climate footprint preserving and protecting resources on land and at sea and reversing the loss of biodiversity; ensuring that everyone has access to enough, healthy and sustainable food meeting standards for safe, high quality, plant health, and animal health and welfare; and ensuring that sustainable food is affordable to everyone while fostering competitiveness, fair trade and safety of the workforce.
- In the **transition to a climate-neutral European economy**, farmers, fishers and aquaculture producers are encouraged to transform their production methods and make the best use of technological and digital solutions that produce climate and environmentally friendly food, increase climate resilience and reduce and optimise the use of pesticides promoting safe alternatives of protecting plants from pests and diseases.





## THE MULTIPLE BENEFITS OF AQUAPONICS



# Chapter 3: The Multiple Benefits of Aquaponics



- **Aquaponics is a modern farming method and food production method** and is seen as an answer to meeting the growing consumer demand for fish.
- Aquaponics is a combination of raising fish (aquaculture) and growing plants (hydroponics) all year round:
- The fish waste works like a fertilizer as it is broken down by bacteria into dissolved nutrients which plants, such as salads or herbs, absorb and use to grow. Like that the plants clean the water for the fish and the farmer.



- **Benefits for our environment?** Aquaponics as a production method means less need of land for growing plants, less water consumption; accelerated plant growth rates, and year-round production of both fish and plants meeting higher demands for food to a growing population
- **Benefits for us consumers?** Both the fish and the plants are healthy food options as they have been grown without residues, chemical fertilizers and pesticides



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# Credits

## Idea, editorial concept development and execution

**ISEKI Food-Association (IFA) Austria**

**University of Chemistry and Technology Prague (VSHCT) Czechia**

**Federation of the Food and Drink Industries of the Czech Republic (FFDI) Czechia**

**National Research Council of Italy – Institute of Sciences of Food Production (CNR – ISPA) Italy**

**Agency for the Promotion of European Research (APRE) Italy**

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