



EU strategies involving plant breeding and plant variety protection that address broad policy issues

Seminar on strategies that address policies involving plant breeding and plant variety protection

virtual meeting 20 October 2021

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Changes in our working environment

Climate change

Demand for Sustainability

Population growth and
demographic developments

Seed and food security
Crisis preparedness

Biodiversity loss

Environmental degradation

Bio-molecular techniques:

- genetic modification
- marker assisted techniques
- genome editing

Urbanisation

Globalisation

IT technologies:

- digitalisation
- big data
- blockchain
- robotics
- artificial intelligence

EU Green Deal

- Green Deal launched in 2019.
- Ambitious project for the EU to become **climate neutral by 2050**.
- It maps a new, sustainable and inclusive growth strategy
 - to boost the economy,
 - improve people's health and quality of life,
 - care for nature and
 - leave no one behind.
- Links to several strategies such as Farm to Fork, Biodiversity Strategy, IP action plan.

Farm to Fork Strategy

Adoption in May 2020.

At the heart of the Green Deal.

Addresses comprehensively the challenges of

- sustainable food systems and
- recognises the inseparable links between **healthy people, healthy societies and a healthy planet.**
- It is also central to achieving the **UN's Sustainable Development Goals.**

Agriculture is responsible for **10.3%** of the EU's GHG emissions and nearly 70% of those come from the animal sector. They consist of non-CO2 GHG (methane and nitrous oxide). The figures do not include CO2 emissions from land use and land use changes.

Farm to Fork Strategy

Food systems are one of the key drivers of climate change and environmental degradation.

Urgent need to reduce dependency on pesticides and antimicrobials, reduce excess fertilisation, increase organic farming, improve animal welfare, and reverse biodiversity loss:

- Reduce the overall use and risk of **chemical pesticides by 50%** and the use of more hazardous pesticides by 50% by 2030.
- Reduce nutrient losses by at least 50%, while ensuring that there is no deterioration in soil fertility. This will reduce the **use of fertilisers by at least 20% by 2030.**
- Objective of at least **25% of the EU's agricultural land under organic farming by 2030.**

Farm to Fork Strategy

Sustainable food systems rely on **seed security and diversity**.

Farmers need to have access to a **range of quality seeds for plant varieties adapted to the pressures of climate change**

Potential of **new genomic techniques** to improve sustainability along the food supply chain - addressed, among other issues, in the recent Commission study on new genomic techniques and the announced policy action on plants obtained by targeted mutagenesis and cisgenesis.

➤ **Broad debate welcomed to formulate a sustainable food policy!**

Plant breeding key

Integration of plant breeding in climate change strategies is one of the best paths to sustainable food production.

Use of plant genetic diversity and resources to adapt and broaden food supply.

The development of new and improved **climate-proof plant varieties**, which are e.g. more drought or flood tolerance or disease and pest resistant, play a central role in increasing sustainability, meeting adaptation needs of agriculture, reducing dependency on pesticides and making the **food system more resilient and sustainable**.

Active plant breeding is a pre-condition for the **biodiversity of crops**, which are processed by breeding. Broadly based plant breeding also ensures the diversity of seeds and contributes to the **preservation of plant genetic resources**.

The central objective of the EUs policies is to continue to foster a **modern and effective regulatory environment** in plant breeding and seed production, under which **innovation** can thrive.

Plant breeding key

In order to boost innovation in plant breeding a strong IP rights system to protect innovation is of outmost importance under the changing environment.

Questions:

How can efficiency and efficacy of the plant variety protection system be improved?

How to deal with unpredictable nature and short and long terms impacts climate change?

How will plant breeding adapt: e.g. new breeding targets and strategies, new plant species and moving target environments?

How can the system support the needs of and changes in plant breeding?

Thank you