The Protected Site for Research with Genetically Modified Plants (GM Plants)

Agroscope, January 2019

Experimental Field for GM Plants

Agroscope operates an experimental field for **research with genetically modified plants (GM plants)**. The special feature of this Protected Site is that it is fenced in and guarded to protect the trials from vandalism.

Aims

The Protected Site is publicly funded. The field is available for the use of researchers from Switzerland for trials with GM plants. Research on the Protected Site pursues two main objectives:

- Basic research
 Basic research expands our knowledge about genetically modified plants and their interactions with the environment.
- Application-oriented research
 The aim of application-oriented research is to scientifically analyse the benefits and risks of GM plants for the Swiss agricultural sector, and to highlight options for agricultural production.

Both basic research and application-oriented research contribute to keeping GM plant know-how up-to-date in Switzerland.



The Protected Site at Agroscope was put into operation on the Zurich Reckenholz site in March 2014. (Photo: Cornelia Heusser / Agroscope)

Agroscope's Tasks

As the operator of the Protected Site, the Zurich Reckenholz research station is responsible for **technical security**. In addition, Agroscope ensures **agronomic support** as well as the **technical and scientific coordination of the trials**. Agroscope also carries out its own research projects in collaboration with other partner institutions.

Security

Technical security measures for the Protected Site include perimeter fencing, round-the-clock guarding and surveillance of the experimental field, and an alarm system. Access to the Protected Site is restricted. Persons with authorised access are trained in safety requirements for handling GM plants.

On the Protected Site, various measures are taken to **prevent the spread** of both plants grown on the experimental plot and their seeds – and in particular, **to prevent their marketing or entry in the food chain**. All samples of GM plants capable of reproducing that leave the testing area are double-wrapped and labelled "genetically modified". Work tools and work shoes are meticulously cleaned, and remain on site if possible.

Research Projects

A **University of Zurich** field trial with **genetically modified wheat** with improved resistance to mildew is running since March 2014.

Agroscope is carrying out a field trial with genetically modified potatoes with improved resistance to potato late blight (Phytophthora) since April 2015. Genetically modified apple trees with improved fireblight resistance are undergoing testing since May 2016. In cooperation with the Leibniz Institute of Plant Genetics and Crop Plant Research (IPK Gatersleben, Germany) and since November 2016, Agroscope is also conducting a field trial with genetically modified wheat that exhibited increased yield potential in the greenhouse.

Back in 2008–2010, field trials with GM plants were taking place at Agroscope on the Reckenholz and Pully sites as part of the National Research Programme 'Benefits and Risks of the Deliberate Release of Genetically Modified Plants' (NRP 59).

The Protected Site in Figures

Size 3 hectares

Cost* CHF 750 000/ year

*The expenditure for the Protected Site consists of the amount spent in setting up the site and the costs of operating it. The operational costs essentially encompass surveillance, agronomic support, and technical and scientific coordination.

Federal Mandate

The provision of a Protected Site for trials with GM plants under field conditions on the Zurich Reckenholz site forms part of Agroscope's performance mandate for 2014 to 2017 as well as for 2018 to 2021. The setting up and operation of a "Protected Site" are addressed in the Dispatch on the Promotion of Education, Research and Innovation in the Years 2013 to 2016 passed by both chambers of the Swiss Parliament in the Autumn 2012 session (ERI Dispatch).

Legal Framework Conditions

- The deliberate release of genetically modified plants is subject to authorisation, and is primarily regulated in the Gene Technology Act (GTA; SR 814.91) and in the Release Ordinance (RO; SR 814.911).
- Gene technology moratorium: The moratorium on the commercial cultivation of GM plants in place since 2005 has been extended three times by the Swiss Parliament and expires at the end of 2021. Research, including field trials, is explicitly excluded from this moratorium.

Further Information

Information on the Protected Site and the current projects can be found at www.protectedsite.ch .

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