



## „Stress Test“ project

Start: 2010; planned finalisation: 2011

### Funding and supporting institutions:

Altner-Combecher Foundation, GEKKO Foundation, the Manfred-Hermesen Foundation, the Foundation on Future Farming

### Scientific Institution:

Swiss Federal Institute of Technology (ETH) Zürich (Switzerland)

### Questions for experimental investigation:

How does genetically engineered maize MON810 react to changing environmental conditions? How big are variations in the content of insecticidal toxin (Bt toxin)?

### Related problem:

It is known that there are huge variations in the content of the insecticidal Bt protein within the plants due to interactions between the genome and the environment. But there have been no systematic investigations into how much Bt toxin is produced in the plants in reaction to specific environmental conditions.

### Approach:

Genetically engineered maize MON810 is grown in climate chambers and exposed to defined environmental conditions such as heat, drought, flooding.

1. Testbiotech, Ecostrat and the Gene-ethical Network present the idea of the stress test to the general public in order to raise funds for the project. A container is installed with some maize plants to explain the idea at a public event near Bonn in Germany.



### General impact:

- › Systematic investigations of genome-environment interactions with genetically engineered plants should be performed before market authorisation.
- › Several publications show genetically engineered plants react unexpectedly and unpredictably to environmental impacts.
- › Ongoing climate change shows how important it is to have more data about these issues.
- › These kind of investigations can be performed in contained systems, it is not necessary to release the plants into the environment.

2. Investigations are started at the Swiss Federal Institute of Technology (ETH) in Zürich, the maize grows and the first measurements are made.

