



Swiss Experience

Moratorium for GM crop cultivation

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Political and legal basis for the GMO moratorium

Two possibilities to directly influence Swiss politics:
Initiative and Referendum

- **Initiative** (pro-active, at level of constitution, launch new laws/issues on political agenda, vote for acceptance has to be 'Yes', considered to be 'motor of change' – 100'000 signatures within 18 months required to bring it on official agenda for voting)



Political and legal basis for the GMO moratorium

Two possibilities to directly influence Swiss politics:
Initiative and **Referendum**

- **Referendum** (re-active, to vote against a change of the constitution/decision by parliament, vote for acceptance has to be 'No' – considered a popular 'veto')



GMO Moratorium – an Initiative *(called: ‘GM-free Initiative’)*

Launched (2003) by a **coalition** of non-‘like-minded’ stakeholders and civil society groups – **across entire political spectrum:**

- all relevant Swiss farmer associations
- consumer groups
- environmental & conservation groups

All rather local and national players than international players. Within 4 months 120 000 signatures – perhaps the fastest on record

Parliament and government were against the moratorium



Gentech-Moratorium

2005



Big success for democracy – the only initiative in CH history when both the people and all cantons voted ‘Yes’:

- popular vote 55,7 % ‘Yes’
- AND
- All cantons said ‘Yes’



MORATORIUM 2005 - 2010

- ***No commercial cultivation of GM crops***
- ***Research and field trials allowed*** (two, one on-going)



Prohibited by law: GM livestock, release of GMOs in protected areas, aquatic systems and forests

NFP59 2005 – 2011/12

National Research Program on ‘Benefits and Risks of GM Plant field releases’

EXTENSION MORATORIUM 2010 - 2013

Until data from NFP59 are published and can inform the debate on an extension of the ban

Sustainability assessment of GM crops in a Swiss agricultural context

Bernhard Speiser • Matthias Stolze •
Bernadette Oehen • Cesare Gessler • Franco P. Weibel •
Esther Bravin • Adeline Kilchenmann •
Albert Widmer • Raffael Charles • Andreas Lang •
Christian Stamm • Peter Triloff • Lucius Tamm

NFP 59

Economics. Most GM traits (with the exception of late blight resistance) had only a small impact on the net margin of arable crops, while the resistance traits in apples improved profitability considerably. The same effect could also be obtained by classical breeding for resistance.



Today

EXTENSION MORATORIUM 2014 – 2017

Became part of the Agriculture Policy of CH

**Switzerland largely GM-free – no foods, no feeds
(3-4 approved GM maize events, none imported)**

**Some GM labeled import specialty products from
Asia can be found in Asia shops**

**BUT: Feral GM OSR along transportation routes
(railroad tracks, Rhine harbor) – origin: imports**

Custom declared import of GM feed

Year	Imported feed amounts tons	declared GMO feed tons	declared GMO feed in %
2009	380 018	0	0
2010	455 877	0	0
2011	491 419	0	0
2012	436 099	0	0
2013	445 381	13*	0,003*

Quellen: BLW, OZD

* Import 2013 only pet feed

RESEARCH ARTICLE

Detection of feral GT73 transgenic oilseed rape (*Brassica napus*) along railway lines on entry routes to oilseed factories in Switzerland

Mirco Hecht • Bernadette Oehen • Jürg Schulze •
Peter Brodmann • Claudia Bagutti



Schoenenberger and D'Andrea *Environmental Sciences Europe* 2012, **24**:23
<http://www.enveurope.com/content/24/1/23>

 Environmental Sciences Europe
a SpringerOpen Journal

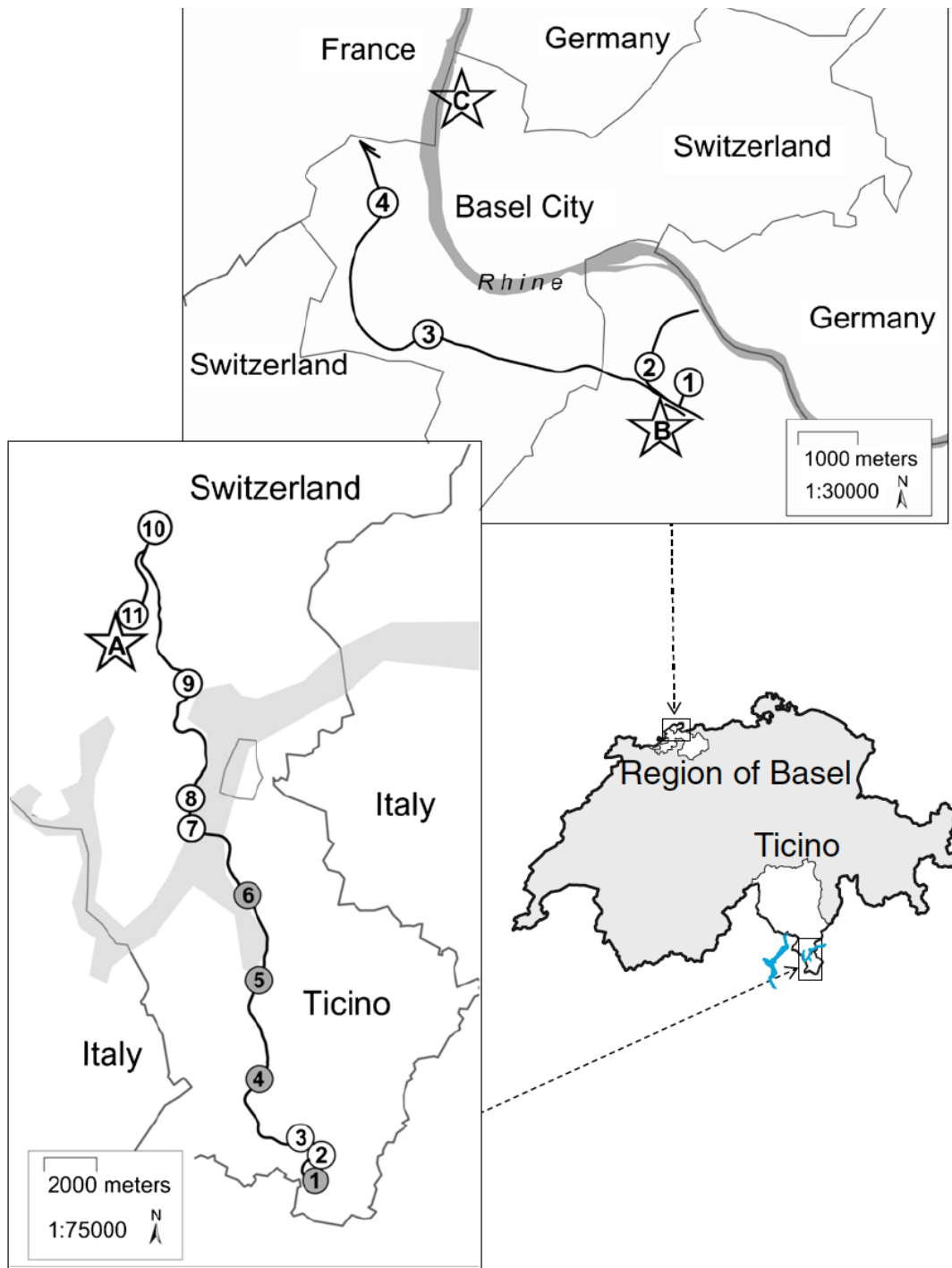
RESEARCH

Open Access

Surveying the occurrence of subspontaneous glyphosate-tolerant genetically engineered *Brassica napus* L. (Brassicaceae) along Swiss railways

Nicola Schoenenberger^{1*} and Luigi D'Andrea^{2*}

At three locations transgenic oilseed rape plants GT73 were found – carrying the Glyphosate/Roundup transgenes: Ticino, 22 plants; in the region of Basel, 159





RESEARCH ARTICLE – PlosOne 2014 **Unexpected Diversity of Feral Genetically Modified Oilseed Rape (*Brassica napus* L.) Despite a Cultivation and Import Ban in Switzerland**

Juerg Schulze, Tina Frauenknecht, Peter Brodmann, Claudia Bagutti
State Laboratory Basel-City, Biosafety Laboratory, Basel, Switzerland

“... first time that feral MS8xRF3, MS8 or RF3 plants were detected in Europe. Real-time PCR analyses of seeds showed outcrossing of GT73 into two non-GM oilseed rape plants, ...

GM plants most frequently occurred at unloading sites for ships, indicating that ship cargo traffic is the main entry pathway for GM oilseed rape.

In the future, it will be of major interest to determine the source of GM oilseed rape seeds

<http://www.gentechnologie.ch/index.php/themen/schadensfaelle/12-themen/schadkat/774-monitoringbericht-zu-wildem-gentechraps-in-basel>

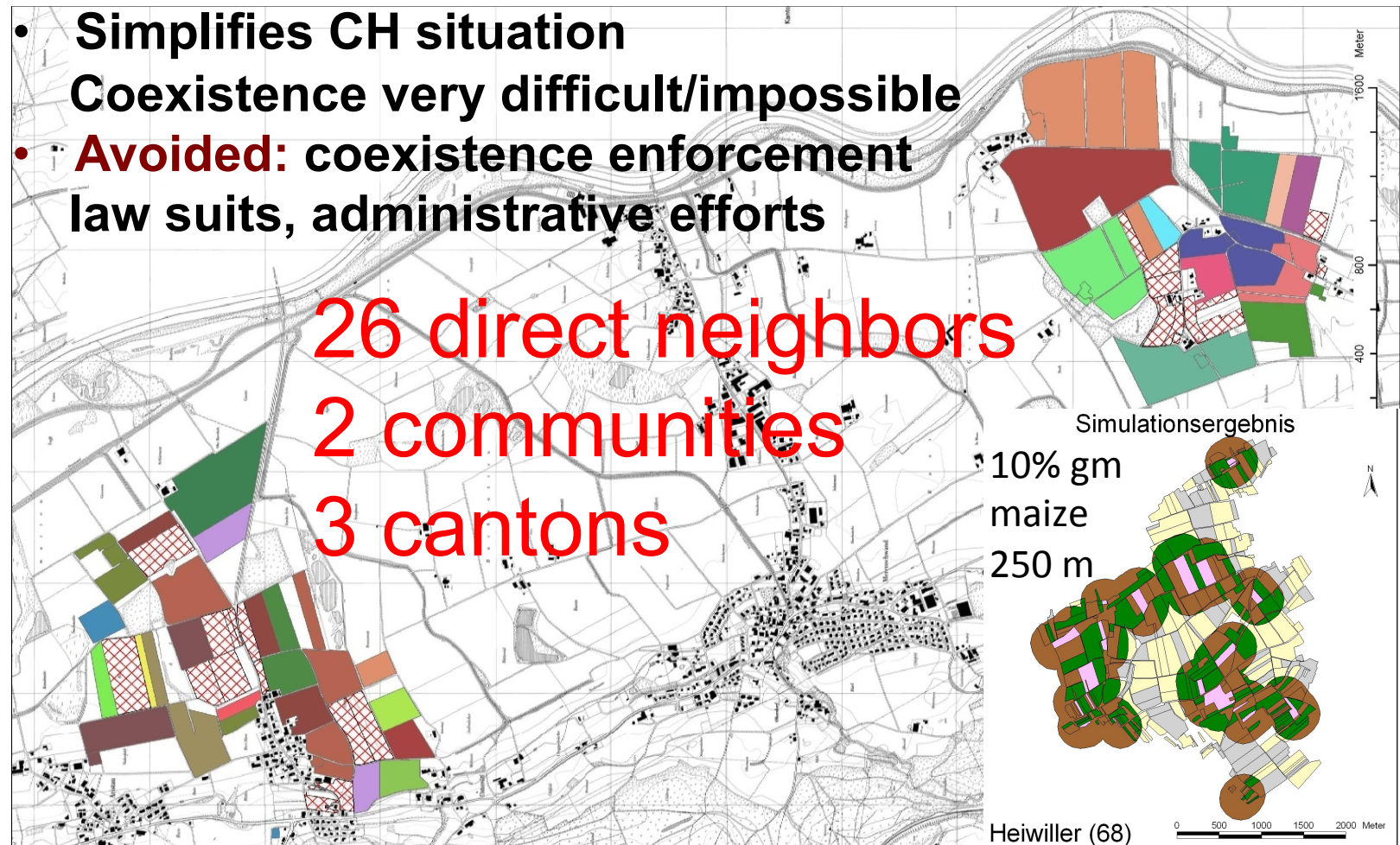




Clear position benefited Swiss agro-food system:

- Simplifies CH situation
Coexistence very difficult/impossible
- **Avoided:** coexistence enforcement
law suits, administrative efforts

26 direct neighbors
2 communities
3 cantons





Clear position benefited Swiss agro-food system:

- Swiss high end products are competitive on the market – shifting to **organic sells!**
- No economic benefits from introducing current GM products
- No economic disadvantages from keeping GM products out (*taxed at border*)





2012 - QUALITY STRATEGY

GM free production part of a 'Joint Quality Strategy' of Swiss agro-food system – along entire value chain

Developed with broad stakeholder participation of entire value chain (**farmer organisations**, collectors, distributors, processing industry, **retailers**, consumer organizations etc.).

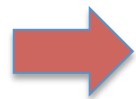


2012 - QUALITY STRATEGY

Enforcement: testing for pesticides, GMOs, pathogens, DNA verification of labels, etc

Canton laboratories verify industry declaration (spot sampling)

EU has similar processes



All global players are used to this and have the required testing facilities, are familiar with the methods/protocols and procedures



Personal note

GM issues are embedded in larger issues of transformation of agro-food systems

- **Sustainable (ecological!)**
- **Solving environmental problems (not part of the problem)**

Function within the planetary boundaries and under the rules of global ecosystem (not against)

Not only about ‘how do we FEED our animals and ourselves’ but ‘how do we KEEP our animals and ourselves’!



THANK YOU!