Strategy for a sustainable plant protection
European Association for Potato Research (EAPR)
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Jan Waespe
Federal Office for Agriculture
Sustainable Plant Protection
Strategy for a sustainable plant protection

2014: Report Postulat Moser
→ Existing measures

2017: Action plan
→ Goals
→ New measures

2022: agricultural policy 22+
→ Package of additional measures
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Swiss national action plan PPP: Goals

Approved by the Federal Council in September 2017
Responsible federal offices: FOAG, FOEN, FSVO, SECO, Agroscope

**Protection of Human**
- Improve information for professional operators
- Restrict access for non-professional users
- Perform cumulative exposure assessment for multiple residues

**Protection of Environment**
- Reduction of PPP uses
- Reduction of emissions

**Protection of Crops**
- Sufficient protection strategies for all relevant crops

Examples of concrete goals:
- Halve exceedings of EQS\(^1\) in watercourses by 2027
- Reduce emissions in natural habitats by 75% by 2023
- Reduce the use of persistent\(^2\) PPP by 50% by 2027

\(^1\) according to water framework directive
\(^2\) DT soil 50 > 6 months
Swiss national action plan PPP: Responsibilities

Federal Council

Federal Department of Economic Affairs, Education and Research (EAER)

- Federal Office for Agriculture (FOAG)
- State Secretariat for Economic Affairs (SECO)
- Agroscope

Federal Department of Home Affairs (FDHA)

- Federal Food Safety and Veterinary (FSVO)

Federal Department of the Environment, Transport, Energy and Communications (DETEC)

- Federal Office for the Environment (FOEN)
Swiss national action plan PPP: Measures

Approved by the Federal Council in September 2017

Responsible federal offices: FOAG, FOEN, FSVO, SECO, Agroscope

51 Measures

- Reduce risks
- Reduce use and emissions of PPP
- Accompanying instruments (research, monitoring, education, information)
Swiss national action plan PPP: Organisation

- **Project management**
  - Federal government: FOAG, FOEN, FSVO, SECO, Agroscope
  - Canton: KVU, VKCS, IVA, KOLAS

- **Sounding board** (strategic accompaniment)
  - Environment: WWF, Greenpeace
  - Drinking water: SVGW
  - Farmers: SBV, VSGP
  - Food industry: primavera, swisscofel

- **Support group** (operational accompaniment)
  - Federal government, canton, research, advisory, organisations

1 responsible person per measure
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Existing measures

Rapport of the Federal Council in 2014 to answer Postulat Moser:
Compilation of all 49 existing measures to reduce the risk of PPP
Existing measures

**Regional programmes** for the sustainable use of natural resources and for water protection

**Direct payments** (+structural improvements)

Proof of ecological performance (based on IPM-principles):
- Crop rotation
- Use of PPP less harmful for beneficial insects (Potato beetle: Azadirachtin, Spinosad, BT)
- Biodiversity promotion areas: 7% (3.5% for special crops) of area per farm
- Control of spray equipment all 4 years
- Distance of 6m to surface water

=> Production systems
- Biological production
- Extenso (no fungicides and insecticides): cereals, rapeseed, sunflower, protein peas and beans

=> Efficient use of resources
- Precise application techniques

**Legal requirements**
Authorisation of PPP, prohibition in sensitive areas, quarantine organisms, aerial spraying,…
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Status of implementation of measures 2019

- Measures in elaboration (34)
- Implemented measures (16)
- Elaboration not started (1)

More information on the homepage of the action plan.
Implemented measures

Objective: Reduce PPP use

Contributions for the reduction of PPP in orchards, grapes and sugar beet since 2018
200-800 CHF/ha

Contributions for the reduction of herbicides in arable land since 2019.
250 CHF/ha

Agroscope set priority in the development of a sustainable and low risk plant protection in the working package 2018-21
Implemented measures

Objective: Reduce emissions into environment

Contributions for **rinsing systems** for sprayers since 2017
50% of costs

Contributions for **washing places** since 2018
50% of costs

2019 new **control** point for washing places and PPP-storage on the farm

2018 additional measures to **reduce run-off** in authorisation of PPP

Regional programmes for the sustainable use of natural resources and for water protection

- **Direct payments (+structural improvements)**
  - Proof of ecological performance (based on IPM-principles):
    - Crop rotation
    - Use of PPP less harmful for beneficial insects (Potato beetle, Azadirachtin, Spinosad, BT)
    - Biodiversity promotion areas: 7% (3.5% for special crops) of area per farm
    - Control of spray equipment all 4 years
    - Distance of field to surface water

- **Efficient use of resources**
  - Precise application techniques

Legal requirements
- Authorisation of PPP, prohibition in sensitive areas, quarantine organisms, aerial spraying, ...
Development reduction of PPP use
PPP sales in Switzerland

2 trends:
• Reduction of herbicides
• Substitution of conventional PPP in favour of PPP permitted in biological production
Development reduction of PPP use
Participation in production systems

Participation in production systems with renunciation of fungicides and insecticides in arable land:
• Extenso (incl. Bio)
• Maize in ÖLN
• Contributions in sugar beet (new since 2018)

Participation in production systems with renunciation of herbicide in fruits and grapes:
• Biological production
• Contributions in fruits and grapes (new since 2018)
2 popular petitions

**Drinking water petition**
No direct payments for farms using:
- pesticides
- antibiotic prophylactic
- feed produced by other farms

**Switzerland without synthetic pesticides**
- No application of synthetic pesticides
- No import of food produced with synthetic pesticides

-> For both petitions more than 100’000 peoples subscribed
-> Vote by Swiss population in 2020
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Agricultural policy 22+: new elements PPP

Direct payments

Proof of ecological performance (based on IPM-principles):

- **Restricted use of PPP** with enhanced risk for the environment
  - Risk for surface water
  - Metabolites in Groundwater
  - Risk for bees
- Reduce **drift and run-off** by 75%
- Eliminate **point sources** by 95% (tank rinsing system and correct washing place)

=> Production systems

- Support renunciation on fungicides, insecticides and herbicides
  Ex. Potato: no herbicides, no insecticides (excl. BT and paraffin oil)

Legal requirements

Authorisation of PPP, prohibition in sensitive areas, quarantine organisms, aerial spraying,…
Authorized PPPs

-50%\ every 2\textsuperscript{nd} ai was eliminated in the last 14 years

50% of remaining ai with stricter application rules

pheromones, micro- and macroorganisms

new ai

stricter application rules
Challenge

Crops need to be **protected**

Demands on quality and quantity of consumers are high

Research:
new plant protection methods are needed

Less authorized PPP

Agroscope set priority in the development of a sustainable and low risk plant protection

Switzerland is member of the **EU minor uses coordination facility** (MUCF)
Aktionsplan Pflanzenschutzmittel

Thank you for your attention!