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**Agroscope**

# Strategies to reduce fungicide use in potato production




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**Agroscope**

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# 2 public initiatives – votes June 2021

**Clean Drinking water initiative**

No direct payments for farms using:
- pesticides
- prophylactic antibiotics
- feed produced by other farms


**Switzerland without synthetic pesticides**

- No application of synthetic pesticides
- No import of food produced with synthetic pesticides


→ both initiatives ***rejected*** by 61% (electoral turnout 60%)

# **Parliamentary initiative** 19.475

- «Counter-proposal» to the public initiatives
- First package of regulations decided (effective from 1.1.23 on)
  - **Goals:**

    **Plant protection products (PPP)**
    - 50% risk reduction until 2027
    - No PPP with a high risk potential used in PEP (ÖLN)

      Ökologischer LeistungsNachweis = proof of ecological performance
    - Measures against wash-off and drift

    **Nutrients**
    - 20% reduction of N- und P-losses until 2030
    - Improved use of farmyard manure, less mineral fertilisers
    - Abolition of 10% tolerance Suisse-Bilanz

    **Information systems**
    - Development of software for recording notifiable PPPs, fertilisers and “concentrated” feed

# Production system subsidies

photo: www.computerbild.de

- Existing program for “production system subsidies” for PEP was adapted
- Registration to “production system subsidies” programme is voluntary, commitment period of one year
- To reach the aim of halving risks associated with the use of PPPs by 2027, several incentives to get subsidies:

  - Farmers renounce the use plant protection products
  - *First thought*: not applicable for potato production

    *BUT*: exception for the use of fungicides in potato production!
  - Subsidies can be maintained if no insecticides and herbicides are applied

→ No implication for the control of late blight, even if high number of treatments is needed (6-10/per season)

# Possible measures to reduce fungicide input

Package of measures needed:

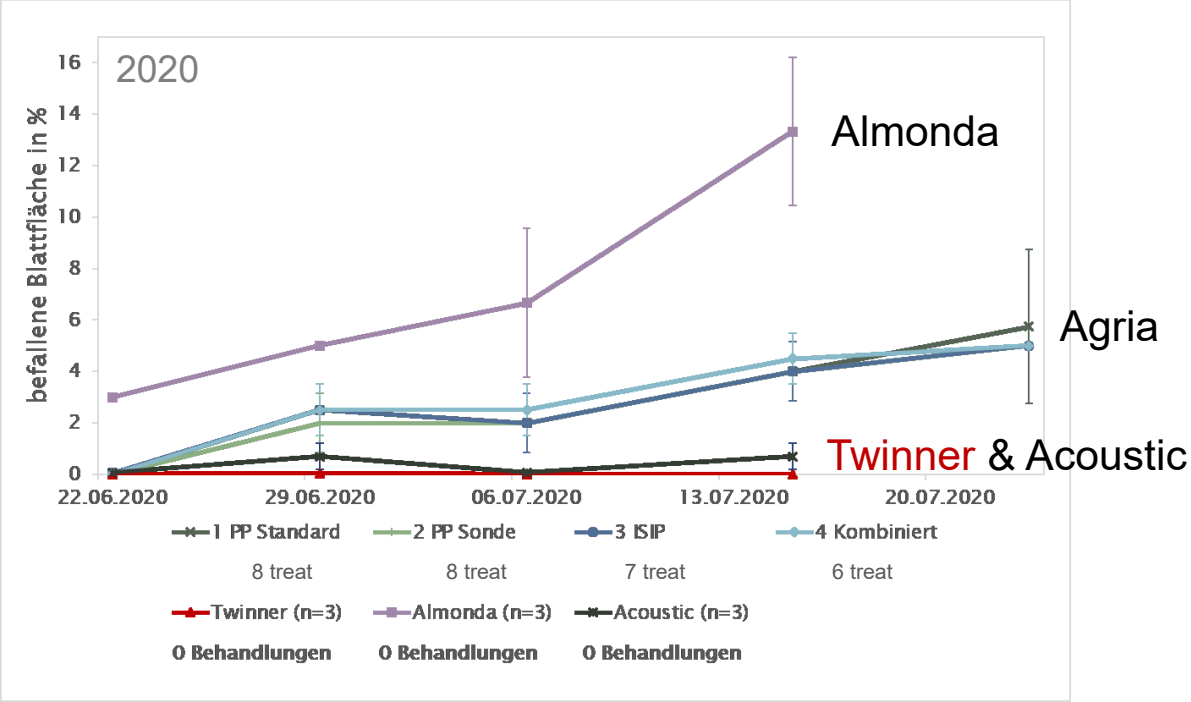
- Field hygiene
  - certified seeds
  - crop rotation
  - avoid dumps, volunteer potatoes
  - regular field observations

- Use of DSS PhytoPRE for targeted applications (date and product)

**Proportion of LB resistant varieties has to be increased**

- only 3 of 41 varieties on recommended list in CH
- no potato breeding in CH

# Possible measures to reduce fungicide input




Results from «Krautfäule-Prognosemodelle & Anbau robuster Kartoffelsorten» project, BLW/swisspatat/HAFL/Agroscope


photo: St. Vogel, HAFL

- None of the new tested resistant varieties was included in variety list 2022
- So far, other quality requirements are valued higher.
- Suppliers see market introduction as a major difficulty



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# Possible measures to reduce fungicide input

Package of measures needed:

- Resistant varieties important element, but not the sole solution
- Development of new alternative fungicides
- Research on primary infection/oospores, monitoring new *Phytophthora* genotypes and their spreading, fungicide resistant, improved DSS

Based on these measures and new research results, fungicide input in potato production can be reduced in future

→ More sustainable potato production











# Thank you for your attention


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