Powdery scab: Development of a strategy to improve potato quality in Switzerland

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Our mission: Clean seed into clean soil

In the recent years, Swiss potato producers argued that the strict ecological requirements of the IP production scheme - introduced in the 90’s and today called ‘proof of ecological achievement’ (PEA) - make it more and more difficult to produce the quality wanted by the market. To get a clear picture, a 3-year on-farm research project was initiated investigating the most important tuber quality problems and the production-system dependent, relevant causal factors on about 100 farms. It was found that slugs, wire worms and dry core (caused by Rhizoctonia) are the most important quality problems, followed by powdery scab. The data suggests that soil infestation in the lowlands is spreading each year mainly due to infected seed and the fact that the Swiss tolerance level of powdery scab on certified seed is too high. In addition, the traditional visual inspection of - normally unwashed - tubers runs the risk of underestimation or misidentification.

A follow-up project in collaboration with the potato industry and the private sector will supply tools and data to
- enable concepts aiming at disease spread prevention
- develop a relatively simple farmer advisory system to estimate the powdery scab risk of a given field

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