A new study has described how agricultural management of the British potato crop has changed over time to reduce several serious threats to food security. It is crucial that an EU plant health policy framework continues to build on these successes to protect against new diseases emerging from expanding global trade and a changing climate.

Preventative measures against plant disease, such as fungicides, have been used since the potato blight disease (*Phytophthora infestans*) devastated European crops in the 19th Century. Despite this, more than 30 bacterial, fungal and viral diseases are known to affect potatoes today and disease causes the loss of an estimated €100 million in England and Wales each year.

It is important that legislative policy stays up-to-date and relevant to the most serious threats that agriculture faces, say the researchers. The new study analysed examples of past and present policy responses to potato diseases in Britain and how successfully the policy approaches evolved with the emergence of new threats. Wart disease caused crop losses of up to 100 per cent at the beginning of the 20th century and Britain lost around €1 million in export profits. Diseased crops were quarantined into ‘infected areas’ and the planting of potatoes was banned, unless certified immune varieties were used or were grown on disease-free land. These measures, which virtually wiped out the disease by the 1940s, led to the creation of Europe-wide legislation to govern national restrictions on potato growth.

EU and UK legislation currently controls the spread of Ring Rot, thought to be the biggest threat to seed potatoes (single tubers which grow and multiply to produce a crop). EU Member States are required to carry out regular surveys to detect possible outbreaks. Any potatoes entering the UK from elsewhere in the EU need to be from registered growers, and any from outside the EU need official confirmation of the disease-free status of the exporting country.

Cost-benefit analyses estimate that the UK potato industry saves up to €16.5 million per year in domestic crops and export market value, through the successful exclusion of Ring Rot.

Other diseases, such as Blackleg, which has no known resistant potato varieties or chemical control measures, have been contained through seed certification schemes. These prohibit the sale of seed potatoes that do not meet specific criteria. The current EU scheme allows a maximum level of blackleg in a crop to 4 per cent. With these restrictions, the disease no longer presents a problem in Europe. The researchers stress that EU policy to protect all economically important plant species must continue to evolve alongside our changing climate and trade patterns with the same speed and flexibility that has been shown historically for the potato industry.

National legislation can complement EU strategies by allowing the flexibility to adapt quickly to a new concern. The Safe Haven Scheme in Britain is currently successful in protecting against a newly recognised bacterial disease, *Dickeya solani*, which has been responsible for significant losses to the Dutch potato industry over the last decade, but which is not included in any official certification scheme.


Source: Dehnen-Schmutz, K., MacLeod, A., Reed, P., Mills, P. R. (2010). The role of regulatory mechanisms for control of plant diseases and food security – case studies from potato production in Britain. Food Security. 2: 233-245.

Contact: K.Dehnen-Schmutz@warwick.ac.uk

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