



Reply to the comments from Plant Protection Service, the Netherlands, on the Norwegian PRA of *Ralstonia solanacearum* – limited to the pathway of ware potatoes from the Netherlands

Opinion from the Plant Health Panel of the Norwegian Scientific Committee for Food Safety

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Leif Sundheim

Trond Rafoss

Arild Sletten

CONTRIBUTORS

Persons working for the Norwegian Scientific Committee for Food Safety (Vitenskapskomiteen for mattrygghet, VKM), either as appointed members of the Committee or as ad hoc-experts, do this by virtue of their scientific expertise, not as representatives for their employers. The Civil Services Act instructions on legal competence apply for all work prepared by VKM.

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The ad hoc-group that was appointed by the Panel on Plant Health in order to prepare a draft for the original pest risk assessment has also prepared a draft for an opinion regarding the comments from the Plant Protection Service in the Netherlands. The members of the ad hoc-group are acknowledged for their valuable work with the opinion.

The members of the ad hoc-group are:

Leif Sundheim (chair), Panel on Plant Health

Trond Rafoss, Panel on Plant Health and Norwegian Institute of Agricultural and Environmental Research (Bioforsk), Ås, Norway

Arild Sletten, Panel on Plant Health and Norwegian Institute of Agricultural and Environmental Research (Bioforsk), Ås, Norway

Assessed by

Panel on Plant Health (Panel 9):

Leif Sundheim,(chair), Trond Hofsvang, Christer Magnusson, Trond Rafoss, Brita Toppe, Anne Marte Tronsmo, Bjørn Økland, Halvor Solheim and Arild Sletten.

Scientific coordinator from the secretariat: Åshild Ergon

Background

In a document submitted to the Norwegian Food Safety Authority on September 14th 2010, the Plant Protection Service (PPS) of the Netherlands makes some comments on the scientific opinion on “Pest risk assessment of *Ralstonia solanacearum* in Norway – limited to the pathway of ware potatoes from the Netherlands”. This opinion (document no. 09-906-3_final) was published on July 7th by the Norwegian Scientific Committee for Food Safety, Panel on Plant Health, hereafter referred to as “the Panel”.

In the following the Panel expresses its views on the comments from the PPS. The opinion was adopted by VKMs Plant Health Panel in a meeting on November 12, 2010.

Reply to the comments from Plant Protection Service

The comments of the PPS are organised under the headings ”Assessment of the probability of arrival of an infected potato lot” and ”Assessment of the probability of transfer and infection”. The reply from the Panel is organised accordingly.

Comments on ”Assessment of the probability of arrival of an infected potato lot”

The PPS states that a frequency of infection corresponding to 6 out of 100,000 potato lots is an overestimation and that 1 out of 100,000 is the more likely value for the frequency of infected ware potatoes. Moreover, the PPS states that the model estimate used by the Panel is based on several assumptions which may not be true (leaving their criticism of the peer reviewed scientific publications by Breukers et al. cited in the PRA unsubstantiated).

The Panel is of the opinion that the figure suggested by the PPS is not in conflict with the conclusion drawn by the Panel in the PRA (p. 27) which says that “The estimates on the average fraction of Dutch ware potato lots infested with *R. solanacearum* range from 0.00001 to 0.00006”. Furthermore, the PPS states that the figure in the lower end of this range is the more likely one based on the most recent data from the Dutch brown rot surveys. The Panel is of the opinion that this statement from the PPS is not in conflict with the PRA because the Panel does not make any expressions about the likelihood of the frequencies within the range of the conclusion (p. 27).

The Panel’s understanding is that the potential for difference in opinion is merely a question of adoption of different data-interpretative approaches. That is, the PPS is using the most recent data as an estimate for the average fraction of Dutch ware potato lots infested with *R. solanacearum*, while the Panel is adopting a more conservative approach considering the overall development in the brown rot situation in the Netherlands since its first (official) outbreak in 1995. Our consultation of various PRA guidelines provides no specific advice in this aspect. However, because the frequency of infected ware potato lots may vary with time the Panel has chosen to base its assessment on the range of situations occurring since the first appearance of the disease in the Netherlands rather than just the past few years. The Panel is of the opinion that the recent events of introduction of *R. solanacearum* to Sweden and United Kingdom through Dutch seed potatoes, supports the Panel’s conservative approach in interpreting the brown rot situation in the Netherlands, although these events were not related

to ware potato export. After all, seed potato lots are less likely to be infected than ware potato lots.

Comments on "Assessment of the probability of transfer and infection"

Regarding the assessment of the probability of transfer and infection, the Panel has to rely on its expert judgement in the absence of data.

Our expert judgement is that there is an overall 50% chance that import of one infested potato lot divided into 10,000 consumer packages potentially distributed to 10,000 households would lead to one introduction of *R. solanacearum* in Norway. Being a very rough assessment, it integrates all aspects such as variation in sewage treatment and seasonal variation in suitability for planting of potatoes etc. The Panel partially agrees with the remark made by the PPS that considering the temporal dimension there are only 3 months during the year that are suitable for planting of potatoes. However, potatoes arriving during other times of the year can also end up being planted because consumers may store potatoes themselves. Moreover, the national regulation on planting of imported ware potatoes cannot be expected to be very well known by the public.

The Panel considers that direct release of effluent water from private households to surface waters is more common in Norway than in the Netherlands. This situation is frequent in rural districts, where the treatment/purification of effluent water and sewage is less intensive. For the industry, there are regulations in force for the handling of sewage and potato peel. However, there are uncertainties related to the effect of these regulations on the potential spread of *R. solanacearum* from potato industries. Having the outbreak in Sweden from the 1970ties in mind, it is hard to completely ignore the possibility of transfer and subsequent infection of domestic potato with *R. solanacearum* carried by surface water.

A detailed investigation of how various factors contribute to the relationship between importation of infested potato lots and number of resulting introductions has not been performed. Considerable uncertainty remains about the probability of transfer and infection.

The PPS points at the past experience with export of large numbers of ware potato lots, with a low frequency of infection, resulting in no introductions, as evidence for that the activity is safe. Such experience is clearly interesting as an indication for the probability of transfer and infection from incidental import of infected ware potatoes originating in the Netherlands. However, this is also a well known, but still controversial, type of argumentation (e.g. confer the trade issue for Karnal bunt of wheat and related scientific publications). It is controversial especially when the alleged absence of likelihood of entry, transfer and infection is not supported by subsequent systematic surveys documenting this allegation.

Other comments

The overall assessment made by the Panel is that there is a medium risk associated with import of ware potatoes from the Netherlands to Norway. This risk is composed of the total balance of the factors: frequency of entry, probability of transfer and infection, potential for establishment and the impact on domestic potato production from potential introductions of *R. solanacearum*.

The Panel recognise that a formulation used in the conclusion of the PRA - "there is medium risk of introduction of *R. solanacearum* to Norway through import of ware potato from the Netherlands" can be misunderstood as limited to the probability of entry, transfer and

infection only. However, the term risk includes both the probability and the consequence of an introduction event, where introduction covers both entry and establishment.

The Panel notes that the PPS does agree on the assessment of the potential for establishment of *R. solanacearum* in Norway. The disagreement is mainly on the issues of the likelihood of entry, and the probability of transfer and infection, where the PPS argues that there are a very low percentage of infected lots and the very low probability of transfer and infection of potato by *R. solanacearum* through import of ware potatoes from the Netherlands to Norway.

Conclusion

The Panel does not find the Dutch criticism related to frequency of entry and probability of transfer and infection sufficiently substantiated to alter its conclusion that there is a medium risk associated with import of ware potatoes from the Netherlands to Norway. However, to avoid that the term “risk of introduction”, used in the main conclusion of the PRA, is misinterpreted as “probability of introduction”, the conclusion in chapter 5 is reformulated in a revised version of the PRA (document no. 09-906-3-final-revised).