



the National Trust
for Scotland

a place for everyone

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Dear Sir or Madam

Future management of risks from *Phytophthora ramorum* and *Phytophthora kernoviae*

The National Trust for Scotland (the Trust) welcomes this opportunity to comment on the above consultation and appreciates the agreed short extension to the consultation deadline which has allowed us to consult more fully internally. The Trust is very concerned about the impacts that *Phytophthora ramorum* and *P. kernoviae* could have and hopes that the Scottish Government will use this consultation as the impetus for taking a stronger lead in tackling these diseases in a coordinated way and committing adequate resources to doing so.

Four of the Trust's West Coast gardens have had outbreaks of the diseases (3 x *P. ramorum* and 1 x *P. kernoviae*) and the Trust's experience of trying to manage the disease so far, informs this response. The main points that the Trust wishes to highlight are given here. Our answers to the questions posed in the consultation document are in Annex 1.

1. The Trust believes that robust measures should be taken to combat these diseases. They are already having severe impacts on a small number of Scotland's important heritage gardens and if not controlled the consequences will worsen. These effects will include damage to individual historic gardens, in terms of their designed landscapes and plant collections, and their viability as key visitor attractions which support the tourism economy in rural areas. There is the potential, though no certainty as yet, for a devastating impact on the natural heritage if the diseases were to spread into the native heathland communities or to affect native trees severely. As well as the potential impacts on biodiversity, landscape and the economy, the Scottish Government would be legally required to act to control notifiable plant diseases and to maintain habitats covered by the Habitats Directive in favourable condition.

2. The Trust believes much more consideration is required to ensure that the approach taken to combat the diseases is more strategic: recognizing the diseases as a national issue rather than a series of isolated outbreaks; improving understanding of the diseases; providing adequate resources and using them efficiently, and minimizing the impact on our natural and cultural heritage in the long-run.
3. In thinking about the requirements of a management approach aimed at ‘reducing the level of inoculum levels to epidemiologically insignificant levels’ the Trust would consider the actions listed here and which are discussed in more detail below, to be priorities:
 - A co-ordinated effort to tackle the diseases by the UK and Scottish Governments that is consistent in approach across the UK. In Scotland, there must be proper co-ordination between government agencies (including Scottish Natural Heritage (SNH) and Historic Scotland (HS));
 - Systematic programme of survey to determine prevalence of diseases across Scotland and establish baseline data with commensurate increases in staff and infrastructure for testing;
 - Funded research to aid understanding of the disease and how it might spread in Scotland;
 - Eradication within the nursery trade in the UK, with much more frequent inspection of nursery stock. Stringent quarantine and inspection controls on imported material are also required in order to prevent any re-introductions to the wider environment;
 - Use of a ‘whole site’ approach to outbreaks in the wider environment, where the timing of eradication work allows for appropriate assessment and planning, especially in Heritage Gardens;
 - Prophylactic removal of uninfected *R. ponticum* to prevent disease spread, with this work being informed and prioritised from information collected by baseline surveys as described above;
 - To encourage comprehensive reporting there must be financial support from Government to nursery owners and landowners bearing the costs of dealing with infections and for dealing with long-term impacts at sites where eradication and clearance has already progressed;
 - Establish a Scottish *Phytophthora* working group of all stakeholders, led by Government;
 - Recognition that there is no specific government body dedicated to the care of historical and botanical plant collections in Scotland’s heritage gardens by either rectifying this or ensuring all relevant parts of government have a consistent approach to protecting these parts of Scotland’s heritage;
 - Establishing a programme of awareness raising and education with a central information point to reduce the informal exchange of potentially infected plant material.
4. To enable robust measures to be taken, it is critical that the lack of baseline information about the geographic spread of the diseases in Scotland is addressed by rigorous survey to determine the prevalence of the pathogens in gardens, nurseries and different natural and semi-natural habitats. This will require more staff and laboratory resources than are currently being applied to the problem.
5. There is a need for an integrated multi-agency approach across Scotland which is lacking at present. Examples of the current problems are given in Annex 1 (Q10). Furthermore there needs to be a consistent approach across the UK in terms of legislation, funding, guidance and how the required controls are interpreted and applied. At present even the provision of information to the public about where outbreaks have occurred is different in Scotland from the

rest of the UK. There is a need for clarity and consistency relating to the criteria used across the UK to define that the disease at a site has been ‘eradicated’ or ‘contained’. Specific published guidance on managing *P. ramorum* and *P. kernoviae* in gardens and parks, which already exists for nurseries and countryside, is needed.

6. Investing resources and effort into controlling disease at individual sites, as the Trust is doing, will not be sustainable unless outbreaks are being controlled across Scotland, and the UK. Whilst the Trust has made public its attempts to address the diseases there is concern that the devastating impact on our historic gardens and the use of charitable resources to combat the diseases will be in vain if the disease is not identified and controlled effectively elsewhere.
7. The prevention of further introductions to the wider environment is dependent on the disease being eradicated from the nursery trade. By comparisons with the approach taken to address outbreaks of animal diseases such as Foot and Mouth the current controls for *Phytophthora* appear weak, eg nurseries able to continue trading even from within the Disease Management Zone in Cornwall. The current controls on trade in host material and infected nurseries should be considered carefully and better enforced with much more frequent inspection of stock. There must also be rigorous inspection controls on imported plant material. The Government must ensure that controls¹ are enforced properly with a combination of sticks (eg increasing inspections) and incentives; failure to pay compensation (in an easy to access process) is likely to undermine the effectiveness of measures to eradicate the disease from the nursery trade.
8. Similarly landowners may be understandably reluctant to incur the costs and intrusion of having an outbreak identified on their property. There is a clear requirement for the government to both raise levels of public awareness about the disease and to consider giving compensation to landowners whose land is affected in order to encourage full reporting of infections.
9. Where outbreaks are identified, a whole site approach should be taken, which considers the most effective and appropriate management of the outbreak as opposed to the current inflexible approach where control orders are imposed on small ‘hot spots’ around infected plants with clearance required within 30 days. The whole site approach should assess the scale of the outbreak, allow time for planning to be undertaken (including a Heritage Impact Assessment if appropriate) and apply measures to contain the disease and prevent spread to a wider area (identifying greatest risks of potential spread and taking steps to reduce these risks eg creating breaks in host vegetation). In the case of new, small outbreaks the current ‘hot spot’ approach may be appropriate, but alternative approaches need to be considered for sites such as Heritage Gardens where there is an established outbreak affecting an important plant collection or designed landscape. The Trust’s experience of the enforced hotspot approach at Brodick is proving both inefficient and devastating to the heritage asset. An alternative approach would aim to contain the disease, but allow time for proper planning and recording, consideration of site specific issues (eg drainage; archaeology; garden shelter provision) and possibly pre-emptive propagation of important plants, before a unique garden is destroyed by unplanned clearance. A less rigid approach to control (clearance) has been allowed at some affected

¹ EU minimum measures are ‘to ensure that plants moving in trade are free of the pathogen, and require action to be taken to eradicate the disease where it is found in nurseries and to contain other outbreaks’. Scottish Government – Rural Directorate, (2008) Consultation on future management of risks from *Phytophthora ramorum* and *Phytophthora kernoviae*, Partial Regulatory Impact Assessment, para 3.

gardens in Cornwall whilst still meeting EU requirements on containment within the wider environment. The Trust thinks similar options should be available in Scotland.

10. The current response by the authorities seems to be restricted by inadequate resources eg only one person in Scotland testing material for *Phytophthora*, and the frequency of inspections at infected sites being apparently limited by a lack of inspectors. Increased staff resources and infrastructure are critical.
11. It is important that funding is made available for research aimed at gaining a better understanding of the disease and how to control its spread, under the conditions present in Scotland.
12. Many of the costs given in the consultation for components of the proposed management options and their impacts seem severely underestimated, and some of the assumptions that these are based on seem to be flawed. Examples include:
 - Costing for removal of *R. ponticum* under Option 2 allows for only 5 Ha to be removed per year. This seems grossly inadequate given the huge areas of Scotland covered by *R. ponticum*;
 - No allowance is made for any impact on visitor numbers for historic and public gardens whereas the Trust would expect there to be a negative impact for badly affected gardens;
 - The figure quoted as an estimate for clearing one infected garden (£15K) seems an underestimate (from both the National Trust for Scotland and the National Trust's experience of significant gardens open to the public). It also makes no allowance for the costs of Heritage Impact Assessment or Conservation Plans for historic gardens, no allowance for ongoing costs of controlling weeds in cleared areas or for replanting the gardens.
 - The analysis doesn't allow for further knock-on impacts such as removal of *R. ponticum* from gardens where it provides shelter, such as at Brodick, potentially resulting in the destruction of areas of the garden not directly impacted by *Phytophthora*, from increased exposure.
 - The analysis of loss of social and environmental benefits of woodland has been carried out using assumptions that minimise the area identified as 'highly susceptible woodland' (ie mapping beech woodlands against west coast climatic conditions and acid soils – an unusual combination).

I hope that this response will be helpful. Please contact me if any of my colleagues or I might be able to provide any additional information or clarification on any of the points made. The Trust's specialist staff are in contact with the relevant parts of the Scottish Government over efforts to control the current outbreaks at our properties and elsewhere. We would be keen to further that dialogue in the near future to refine the approaches that are currently required for Historic Gardens.

Yours sincerely



Dee McIntosh
Director of Policy & Communications

The National Trust for Scotland

Annex 1 – National Trust for Scotland Responses to Questions in the Consultation Document

1. Which of the proposed options do you favour? Please give your reasons for your preference, if possible explaining why you do not favour the alternatives.

As described in our covering letter, the Trust favours increased activity to combat the disease with a dual focus on improving knowledge and improving controls without unnecessary damage to Scotland's natural and cultural heritage being incurred. Our favoured approach would be closest to Option 2 but with some adjustment and further development.

In considering the Options presented by the Scottish Government, the experience to date in Cornwall suggests that reducing efforts to control the disease would make the problem worse in the long run. Reducing controls to the EU minimum level would remove any requirement to control *P. kernoviae*, and therefore the Trust would not support Option 1. Whichever approach to management is chosen, monitoring and evaluation of the situation (as emphasised under Option 3) will be needed. However, it is clear that under the current levels of activity the diseases are spreading therefore the Trust would not support Option 3. The Trust believes increased effort to understand and control *P. ramorum* and *P. kernoviae* is needed but feels that the approach set out in Option 2, needs further development. Option 2 underestimates the scale of the response required to achieve its stated aim, and the Trust suspects that the likely cost of doing "everything necessary to eradicate" the disease will be significantly higher than that which is estimated in the Partial Regulatory Impact Assessment.

2. Should separate policy approaches be adopted for each disease or should the same policy be applied to both?

On the basis of current knowledge *P. ramorum* and *P. kernoviae* should be treated similarly in legislation rather than the current situation where there are no EU minimum controls in place for *P. kernoviae*. The reasons for this view are that *P. kernoviae* appears to be more virulent and to have potentially more serious consequences in terms of the natural heritage. At present *P. kernoviae* seems to be less widely distributed in Scotland and thus there is perhaps a limited period of opportunity to contain/eradicate the disease more readily. Furthermore, in practice it is very hard for most people to distinguish between the diseases. There may be a case for prioritising the use of resources to combat one disease rather than the other, if in future, improved scientific data indicates this would be worthwhile.

3. Should measures continue to be taken to prevent these pathogens moving on nursery stock within the EU?

Yes.

4. The current level of EU minimum controls is due to be reviewed by EC Standing Committee on Plant Health. What do you think are appropriate levels of controls for *P. ramorum* and *P. kernoviae* both on nurseries and in the wider environment? How should these levels be reflected in EU law?

EU measures require eradication from commercial ornamental plant production and containment of outbreaks in the wider environment. The Trust is supportive of this as a minimum level of control and believes it should be applied to both *P. ramorum* and *P. kernoviae*.

The UK and Scottish governments must ensure, by working together, that these minimum levels are met. This is likely to involve an increased level of inspection, requiring greater resources for testing infrastructure and staff, and consideration of introducing compensation nurseries directly impacted by

the disease to encourage reporting and good husbandry and to ensure that quarantine procedures are practiced reliably.

Option 1

5. Please indicate any other impacts option 1 would have, apart from those considered in the RIA.

In addition to our concerns over not having a the minimum control level for *P. kernoviae* we feel that Option 1 does not fully recognize the worth of historic and important gardens in terms of economic drivers providing employment and tourist attractions. This role would be increasingly eroded over time by Option 1 as more gardens were infected. In addition, the overall impact of a high incidence of the disease or the disease occurring in all gardens within 20 years (as is assumed in the concurrent DEFRA consultation) on garden heritage is not fully recognized. Examples are likely to include: disappearance of characteristic species, drastic changes to planting schemes; problems providing shelter; loss of historic character and key design elements. As with Option 2 there will be secondary implications for cleared areas within gardens of controlling weeds and replanting that do not seem to have been accounted for.

Without increased effort on systematic survey and testing we will not develop the baseline data to allow an overview of the disease progression in Scotland, upon which any future adjustment to the approach to diseases could be based.

6. Option 1 identifies that trade in host material may be affected. How would a ban on exports to non-EU countries and limits on other trade of host material impact on the Scottish horticultural trade?

Such a ban would have consequences for those nurseries that export material, the severity of which will depend on their individual circumstances. Presumably such a ban would increase the costs to nursery and garden centres outlined in para 41(iii) of the Partial Regulatory Impact Assessment (PRIA).

In order to avoid such a ban being imposed, a more stringent testing regime is required and the current controls on the trade in host material need to be more stringently applied or strengthened to ensure that the diseases are not being spread by this means. The current levels of control seem very light compared with responses to outbreaks of other diseases eg Foot and Mouth, and it seems that nurseries from within the Disease Management Zone set up in Cornwall are still able to trade outwith inspections.

Option 2

7. Please indicate any other impacts option 2 would have, apart from those considered in the RIA.

The comments under Question 5, relating to recognition of the potential impacts on Scotland's gardening heritage and the need to consider the costs of managing secondary impacts of clearance, also apply here. However, successful control measures that prevent the spread of the diseases to so many gardens would mean that costs, both financial and in terms of heritage, should be much lower in the long-term.

8. Option 2 will involve enforced clearance of *Rhododendron ponticum* from gardens and woodland where infection is found.

a. Should enforced clearance of infected sporulating hosts be applied in all cases?

Not if 'enforced clearance' means within a 30 day time period as currently required.

In terms of *R. ponticum* the Trust feels that there should be clearance of infected sporulating plants and uninfected *R. ponticum* plants which may provide a conduit for the disease to spread. The Trust's concern over enforced clearance centres on enough time being allowed for appropriate information gathering, planning and mitigation of secondary impacts to be undertaken.

Clearance should be done in a planned way that looks at a whole site, considers containment of the disease on site, and particularly in the case of Historic Gardens and Designed Landscapes allows time for a heritage impact assessment to be undertaken. The timing and implementation of the enforced clearance therefore needs to be flexible enough to limit the immediate risks of the disease spreading and to plan how to manage the disease at the site with the minimum impact to important collections and garden designs. *R. ponticum*, whilst regarded as an invasive weed in general, forms an important component of some historic gardens such as Brodick, where it provides shelter for the more tender plant collections. In such a case allowing time for alternative temporary shelter provision to be put in place might significantly reduce the overall impact on the garden.

b. Should infected plants of historic significance be regarded differently from other sporulating hosts? If so how?

It is assumed here that the term ‘infected plants’ does not just refer to *R. ponticum*, which has been covered in our response to part a of the question.

The Trust sees the need for a more flexible approach to be taken to clearance within historic gardens to allow for proper recording and conservation planning in order to minimise the loss of character and of historical significance whilst containing the disease. This would allow time to assess whether any of the plants in the garden merit different treatment. The basis for special treatment might be the rarity of the specimen, an unusual genotype (of scientific or horticultural worth) or where the plants are a key component of the character of a historic garden. In such cases it may be worth retaining plants for longer, if not too seriously compromised by the disease, in order to allow proper study and recording, possible pre-emptive micropropagation of uninfected material or to allow better management of the appearance of the garden. At present the approach at gardens in Scotland with an outbreak means that plants are being removed and destroyed without proper consideration.

9. Option 2 offers the opportunity to reduce inoculum levels to epidemiologically insignificant levels. How do you perceive the risk that the diseases may continue to spread regardless of increased activity?

The risk of the diseases spreading is uncertain but will depend almost entirely on the level of increased activity to prevent this. If this is only at the limited levels outlined in Option 2 of the consultation there is not the slightest chance that they will be effective in containing the diseases.

10. Are the measures described under option 2 sufficient to reduce the disease inoculum to epidemiologically insignificant levels? Would you suggest any other measures?

Option 2 suggests that the SG would be committed to do “everything necessary to eradicate” the disease. However the scale of the task is unknown. The Trust believes that further measures and increased effort in addition to those described under Option 2 will be required.

To enable robust measure to be taken, it is critical that the lack of baseline information about the geographic spread of the diseases in Scotland is addressed by more rigorous survey of the prevalence of the pathogens in gardens, nurseries and different natural and semi-natural habitats.

To combat the diseases in the UK the government must make provision for financial support and relief to owners of affected sites, and in particular heritage gardens, where the costs incurred are likely to be highest. A compensation scheme for affected nurseries should also be considered to ensure compliance.

A need for review and evaluation of approaches in the light of new information and research.

There is a need for a much improved and properly integrated multi-agency approach across Scotland. Examples of the current problems include the apparent failure to pass on geographic locations of outbreaks to SNH, thereby affecting that organisation's ability to make contingency plans; references to the possibility of grants being available under SRDP but no real coordination of this; no mention of *Phytophthora* in SNH's recent Species Action Framework Consultation (*Rhododendron ponticum* & hybrids Five-Year Implementation Plan 2007-2012) which might have implications for the possibility of accessing SRDP and other funding for *R. ponticum* removal. Inspectors from different government agencies appear to use different protocols on inspection visits.

Establish a Scottish working group, led by the government, to facilitate better understanding of the problems and better consistency and co-ordination of response. In Cornwall a working group involving all stakeholders, including DEFRA, appears to have been helpful in coordinating approaches and enhancing communication between Government, sites and the gardening sector.

A much greater degree of prophylactic removal of *R. ponticum*, will be required to protect the wider environment and to limit the spread of the disease into the vast areas of *R. ponticum* in the west of Scotland. If infection spread through this, it could be hugely difficult and expensive even to contain the diseases in line with the EU minimum requirements. As a notifiable plant disease landowners would be legally required to clear infected plant material but the scale and cost could make this impractical. Option 2 as proposed by the Scottish Government aiming for eradication of the disease includes costings for only around 5 Ha of *R. ponticum* to be cleared each year. Instead a much enhanced programme to remove *R. ponticum* from high risk areas in the wider environment and other susceptible semi-natural vegetation is required. Removal of *R. ponticum* from the periphery of valuable plant collections, to prevent both outward and inward spread, should be prioritised.

There is a need for clarity and consistency on criteria that are used across the UK to define when and how the disease at a site has been 'eradicated' or 'contained'.

At present there still is no published guidance document on management of *P. ramorum* and *P. kernoviae* for gardens and parks, as there is for nurseries or countryside. Such guidance documents that give specific measures suited to garden conditions are needed.

The Trust believes that the Government must also address the potential for disease spread via the informal movement and exchange of plant material (eg the taking of cuttings; plant swaps between gardens within Europe). This seems difficult to tackle but an education and publicity campaign would help to combat this. In the affected areas of Cornwall all householders have been informed of the infection and the potential risks of moving plant material.

Option 3

11. Please indicate any impacts Option 3 would have, apart from those considered under Options 1 and 2 in the RIA.

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12. What other evidence should be sought during the 2-year holding period?

The Trust highlights below areas which should be addressed under whatever approach is pursued.

- Baseline data on prevalence of the two diseases based on systematic survey (see answer to Question 10)
- Research into Scottish conditions and implications for spread of disease
- Establish effectiveness of methods of controlling diseases by trialling eg proactive use of chemicals as barriers to diseases

- One area where it would be useful to have clarity is whether there are any instances where *P. kernoviae* has been eradicated following an outbreak in the wider environment and what ‘eradication’ is considered to be in terms of levels of inoculum (eg levels of spores persisting in the soil).

Basic information about your own experience.

i) Are you:

an association or representative body;

a nursery stock grower (some Trust gardens grow plants for their own plant sales outlets)

a nursery stock wholesaler;

a nursery stock retailer (i.e. garden centre): (plant sales areas at some properties)

owner of a garden open to the public; (multiple sites included in the Inventory of Gardens and Designed Landscapes)

a land manager;

a conservation organisation;

other (please specify).

ii) What has been the impact (positive or negative) on you or your business of these two pathogens and the measures taken against them?

(see answers to (iii) and (iv) for more detail)

- Considerable use of staff time and resources diverted from other work
- Cost of implementing Control Orders
- Cost of developing policy and procedures in response to disease eg. briefing all garden and ranger staff on identifying the disease symptoms; review of plant recording and phytosanitary procedures
- Media and awareness raising work; urgent fundraising for affected gardens
- Impact on heritage assets
- Impact on visitor experience
- Requirements for conservation planning, remedial actions and replanting at affected gardens

iii) Have you had an outbreak of either *P. ramorum* or *P. kernoviae* on land where you are the owner or occupier?

Yes: 3 x *P. ramorum* and 1 x *P. kernoviae* all within historic gardens that are open to the public.

iv) If the answer to iii) is yes, what has been the impact (positive or negative) on you or your land of either of the disease and the measures taken against it?

Impacts of the disease:

Infected and dying plants – all garden specimens and *R. ponticum*

Visual impact of sickly plants

Impacts of measures taken against it:

Clearance of infected plants and surrounding areas within historic gardens

Loss of specimen plants before proper recording or propagation

Lack of assessment of wider impacts before clearance eg removal of shelter

Diversion of staff time and resources eg at one property equivalent of approx 11 working days a week dealing with clearance related to *P. kernoviae* since April

Visual impact of clearance work detrimental to overall visitor experience