Forestry Commission

Agenda Item 8 Commissioners' Meeting Memo No 11/16

16 JUNE 2016

THREATS TO TREES FROM PESTS AND DISEASES

1. Purpose

1.1. To provide an update for Commissioners on the current status of threats to forests woodlands and trees in GB.

2. Background

2.1. Since the late 1990's, as a result of the increasing trade in plants and climatic changes, we have been facing an unprecedented number of pest and disease threats to our forests and woodlands, many of which have arrived in the last decade. In response, the plant health landscape has changed significantly and cross organisation working between the FC, Defra, devolved administrations and the Animal and Plant Health Agency has been embedded in everyday working practice. There is now a GB Plant Health Strategy in place, and a UK Chief Plant Health Officer (CPHO) who owns and coordinates activity to deliver the strategy. Scotland has recently published its own plant health strategy which aligns with the UK one, and is in the process of appointing its own CPHO.

2.2. This paper sets out how tree health, and wider plant health, is currently functioning in GB, and describes the mechanisms being deployed to anticipate and address threats at the earliest possible stage.

3. Current management arrangements

3.1. The Plant Health Risk Group (PHRG) remit is to advise the UK CPHO of new and emerging plant health threats with recommendations for actions (Annex 1 provides details of the membership and remit of the group). The group reports to UK Plant Health Strategy Board[1] and any relevant UK co-ordination issues are considered at an extended meeting every six months, attended by representatives from devolved administrations and the Crown Dependencies of The Channel Isles and the Isle of Man. The UK Plant Health Risk Register, which was developed from a concept arising from the Tree Health and Plant Biosecurity Expert Taskforce, is used by the group as a reporting tool to facilitate risk assessment and consultation on risk management measures against plant pests and pathogens which pose a potential risk to UK crops, trees and ecosystems.

[1] Governance of plant health in the UK remains complex. The overall current position can be seen at Annex 2.

3.2. There are internationally agreed standards for the assessment of pest risk developed under an International Plant Protection Convention (IPPC) framework. The format for the Defra pest risk assessment is derived from that adopted by the European and Mediterranean Plant Protection Organization (EPPO).

3.3. Membership comprises representatives from the office of the UK CHPO and its policy and evidence teams, from Fera Science, the Animal and Plant Health Agency, Forestry Commission, Forest Research and the DAs (Annex 1).

3.4. The group meets monthly, within 5 days of forthcoming European Commission Standing Committee on Plant Health (SCPH) meetings. The meetings involve preparation for the SCPH and other EU meetings and review issues around specific pests and diseases and general matters including reports from sub-groups on surveillance, research and communications. Forestry and wood items are grouped together for convenience. With no Standing Committee meeting in July/August, an annual review meeting is held then.

3.5. Recommendations made by the group will be submitted for consideration by the UK CPHO who then decides whether particular issues should be submitted to the Secretary of State for information or approval. The core members for the DAs will decide if they need to flag specific items to their own Ministers.

3.6. The PHRG also has a remit to consult with stakeholders and consultations are either publicly available, as for pest risk assessments, or, they can be carried out directly with stakeholder groups, as will contingency plans. The PHRG prioritises a programme of work to prepare pest risk assessments and contingency plans although members of the group may prioritise their own programme of work if they have the capacity to do so. The outcomes of any risk assessment consultations to report to the European Commission will be confirmed at UK co-ordination meetings which are held every 6 months.

3.7. Of the highest priority 21 unmitigated threats[2] identified on the UK Plant Health Risk Register, 11 are pests or diseases of trees. With mitigation, 6 tree health threats remain in the top 10.

4. Mitigating the threats through UK activity

4.1. A standing item on the agenda for the group is to consider the current status of a smaller number of pests that are a high priority for action and research (Annex 3). In some cases there will be actions on the pathway(s) for the pest as well as actions on the pest itself. For example, the actions on Emerald Ash Borer (*Agrilus planipennis)* include our existing border inspections as well as the introduction of a statutory notification scheme from firewood in order to determine the level of trade and any risk associated with ash firewood imports from eastern Europe and the Baltic states.

4.2. Forestry Commission England uses a list of high priority pests for reporting indicators of forest condition. The list of high profile pests for the risk group differs from this, although there is considerable overlap as might be expected. The indicators of forest

[2] Organisms with an unmitigated UK relative risk rating of 100 or above.

condition are all pests with a mitigated risk rating[3] of 15 and above. Some of these indicators are well established pests and it is expected that the measures being taken to address them will reduce the level of their risk rating and, as a consequence, will reduce the number of indicator pests over time.

5. Implications of EU PH regime implementation

5.1. The provisionally agreed text for the new EU Plant Health Regime has been endorsed by the European Parliament Agriculture Committee but still needs to be formally approved by the Council (EU ministers) at the first reading before it returns to the Agriculture Committee for final approval. It will then need to be approved by Parliament as a whole, at the second reading before it can enter into force.

5.2. Defra colleagues inform us that there is unlikely to be any objection to adoption in July this year. Publication is anticipated to be autumn this year and implementation will be required within three years of publication.

5.3. There are a number of main changes from the current regime with implications for UK plant health management. The new regime will be more prescriptive requiring surveillance, notifications, plant health measures, and new inspection and sampling procedures.

5.4. Some new concepts are being introduced. These include demarcated areas, frontier zones, quarantine facilities, temporary prohibition for highest risk commodities, and temporary measures for imports.

5.5. There will be mandatory registration, and new traceability requirements for all operators.

5.6. Tighter controls on imports will be introduced. This will require phytosanitary certificates for all imports, unless exemptions apply. Full use will be made of temporary measures and goods with the highest risk may be prohibited. This will place greater obligations on importers and point of entry operators.

5.7. There will be a significantly enhanced plant passporting regime, which will be broadened to include all plants for planting. There will be enhanced requirements for operator competence and obligations on authorised operators to demonstrate procedures and monitoring of plant passported material throughout the whole production process. There are to be no local exemptions or exemption for internet / distance sales, and plant passporting will be applicable to the smallest trade unit.

5.8. This should provide a significant and welcome strengthening of the controls to prevent unwanted pests and diseases arriving in the UK.

5.9. The major implication for forestry is a new requirement under the plant passporting rules for passports to accompany timber moved within the UK. GB is afforded special protection for a number of forestry pests through EU legislation that are recognised, by the EU, as absent from GB. This means that certain plants and plant

[3] This is a different scale to the rating used before; it is the 'likelihood x impact risk rating' using the standard FC system.

products including wood must meet certain requirements before it can be introduced into and moved within GB. Stakeholder groups in Scotland and Wales have already been informed about this, and arrangements have been made to engage with groups in England. The new Plant Health Regulation is tightening up these requirements and offers increased protection of our forests. The UK will continue to negotiate for a regulatory framework that is proportionate and risk-based but the new requirements might mean we have to do more to protect our timber industry and forests than we currently do, such as issuing a 'plant passport' for most timber moved within GB.

5.10. However, those supplying direct to a final user and between the premises of a single operator will be exempted from this requirement. The timber industry will be consulted on further options once the full details of the Regulation are available and we are preparing for more detailed rules to be negotiated.

6. Conclusions on the effectiveness of biosecurity controls

6.1. The Forestry Commission has devoted a lot of time and effort in the last few years to improving and streamlining the working relationships with the other UK plant health organisations. Following the report of the Biosecurity Taskforce, the recommendations it proposed have been put in place and this has led to the creation of the new CPHO post, and the development of the plant health risk register. We now have the GB Plant Health Strategy, tree health management plans, contingency plans, and an enhanced inspectorate in place. Some recent pest outbreaks have served to provide examples of how this improved relationship is functioning.

6.2. Before the current streamlined approach, the discovery of Asian Longhorn beetle in Kent mobilised a rapid joint response from Forestry Commission, Defra and Fera. Hundreds of trees were felled and burnt in the space of a few weeks, and annual surveys suggest that there are no more findings of the pest. Current practice is based on lessons learnt from this and from the handling of *Phytophthora ramorum* outbreaks.

6.3. The Chalara outbreak was tackled by a cross organisation approach to assess the level of spread of the pathogen, determine a strategy to address it, and commission new research to aid this. The recent finding of a tree with tolerance to Chalara, named 'Betty' as a result of the Nornex project has given some grounds for optimism that ash will remain part of the UK landscape.

6.4. In Scotland, the discovery of infested packaging material accompanying steel for the Beauly-Denny power line by one of our additional inspectors at Grangemouth docks precipitated a complex programme of work to identify the location of the packaging material at remote sites along the course of the powerline. The material was located, checked and where necessary burnt to prevent any spread of insects to nearby woodland. We also initiated an additional trapping programme for bark beetles along the power line. This episode and the ALB in Kent above have identified a number of new pathways for pests to arrive into the UK, and we have tightened and increased our inspection processes to address these.

6.5. Again in Kent, the finding of Sweet Chestnut Gall Wasp at Farningham wood elicited a rapid response and the clearance and burning of arisings of infected material on site. The Forestry Commission led Observatree project was asked to keep an eye out for

further findings, and one was rapidly reported from another wood in Kent by one of the Observatree volunteers.

6.6. The recent rise in the importation of biomass to feed power stations was anticipated and new measures were established quickly to set out import requirements to prevent pests and diseases entering by that route.

6.7. Through all of these cases, careful management of news releases to ensure a consistent message across all organisations has been deployed. This helps to build public confidence in the capacity of the UK plant health service to tackle threats quickly when they arrive, and strengthen controls to prevent them from getting here.

6.8. Good communication with ministers, led by Defra and the devolved administrations has freed up Forestry Commission Plant Health Service time to concentrate on the issues around dealing with the pest or disease, and this has been welcome.

6.9. The controls are improving, but much remains to be done, and it will be several years before we start to see the impact of the new EU plant health regime changes. For example, interceptions of *Ips typographus* and Asian Longhorn beetle still occur. It is also important to maintain focus on known and present pests and diseases which we are aware of. As an illustration of this, Green spruce aphid damage on Sitka spruce has been increasing in the west of the country, and there are reports from Wales of Swiss Needle Cast disease on Douglas fir. The controls against *Phytophthora ramorum* have delivered some good results, but could be undone by the wrong weather at the wrong time. Findings of some minor pathogens known in the UK for a considerable time appear to be on the increase.

6.10. Vigilance remains the watchword, but we now have an institutional structure which works effectively together, without competing organisational agendas, and to common strategies. Contingency plan arrangements for Oak Processionary moth and Oriental Chestnut Gall wasp have been tested and found to work very effectively. Since Chalara our agencies have not been tested with a major outbreak, but with the development of the Animal and Plant Health UK Partnership, we should be in a much better place should another serious issue arise in the future.

7. Lessons learnt

7.1. For plant health activity to be effective in the complex landscape it has to operate in, excellent working relationships have had to be developed. This has meant that each organisation involved has had to recognise the skills and expertise of the other partners, and trust that they will deliver what is required of them, when it is needed. In addition, publically recognising the contribution of each organisation has helped to build the levels of trust, and allowed the co-development of shared strategies and action plans. Achieving this has only been possible through close co-operation, and the development of strong personal and professional relationships.

7.2. The creation of the Defra CPHO post has provided a focal point for co-ordinating activity, and we have forged a very good working relationship with Nicola Spence. Nicola and her team have taken responsibility for briefing Defra ministers on plant health issues. This has freed up time for concentration on operational matters, it has provided Defra ministers with a single point of contact, which has made for a better working

relationship with government. Scotland and Wales brief their own ministers, but have ready access to most of the material which Defra has, so consistent messages can be communicated.

7.3. Serious pest or disease outbreaks, such as Chalara or Oak Processionary moth require highly co-ordinated and rapid responses, if we are to have a significant impact on their spread. The development of the Plant Health Risk Register has enabled a more proactive approach to biosecurity. This is allowing us to target specific pests, and develop contingency plans in readiness for any findings. We are also in a better position to anticipate new trades, and assess their risk before they commence. This allows good regulation to be in place before the trade can pose a risk.

7.4. An evaluation of the additional money provided by Defra to the Forestry Commission has reported positively on better inspections, more robust cost benefit analysis, and increased capability. This remains essential if biosecurity is to remain effective while free trade continues.

7.5. The shared communication approach, now adopted, allows us to get consistent, well thought through messages out to reassure the public and ministers that the UK Plant Health Services have the competence and capability to address new threats when they emerge. This is crucial for ensuring continued confidence in the forestry sector.

8. Resource Implications

8.1. The SR15 budget has allowed work on plant health to remain constant, so the only significant resource implication will be if a major effort is required to combat another serious pest or disease threat. A lot of the time of the FC Plant Health cross border team will be taken up in the coming year with the arrangements for implementation of the new EU Plant Health Regime.

9. Risk Assessment

9.1. The significant risks we are aware of are listed on the Plant Health Risk Register, and mitigation measures are being put in place to address these.

10. Communications Issues

10.1. The plant health team now has access to the Defra communication planning grid to allow a shared communications approach. This has improved internal communication, and the Forestry Commission communications team is involved at the very early stages of any outbreak or significant finding. In addition the level of plant health expertise at Forestry Commission communications has been recognised by the recent Foreign and Commonwealth Office fact finding mission as being one of the best in Europe.

11. Implementation and Evaluation Proposals

11.1. Implementation and evaluation proposals for the new EU Plant Health Regime are being developed in conjunction with Defra and the Das, and this will include full engagement with stakeholders.

12. Recommendation

12.1. That Commissioners note the current position on plant health management in the UK and discuss the issues arising from it.

Roger Coppock
Head of Corporate and Forestry Support
June 2016

Annex 1 – The UK Plant Health Risk Group

Core members of the Plant Health Risk Group

Defra

Chair: Richard McIntosh (A-CPHO)

Secretary: Justin Dixon (CPHO Office)

Nicola Spence (CPHO)

Belinda Phillipson (PHEA)

Neil Giltrap (CPHO - Consultancy)

Sharon Matthews-Berry (CPHO - Consultancy)

Sam Bishop (CPHO - Consultancy)

Fiona Hopkins (Policy)

Fera

Chris Malumphy (Plant Protection – Diagnosis)

Animal and Plant Health Agency

Guy Nettleton (Principal PHSI – Imports)

Derek McCann (Principal PHSI – Surveillance)

Ed Birchall (Principal PHSI – Passports/Exports)

Paul Bratby (PHSI)

Forestry Commission

John Morgan

Forest Research

Joan Webber

Scottish Government

Welsh Government

DARD Northern Ireland

Remit of the Plant Health Risk Group

To advise the UK CPHO of new and emerging plant health threats with recommendations for actions. To utilise and maintain the UK Plant Health Risk Register to facilitate risk assessment and consultation on risk management measures against plant pests and pathogens which pose a potential risk to UK crops, trees and ecosystems. In particular:

- To consider new and revised issues arising and agree Risk Register ratings and entries.
- To advise on prioritisation of risk assessments and other actions and identify those issues which require a full Pest Risk Analysis.
- To make decisions on action against pest risks, identified as a threat through horizon scanning, or in response to findings (generally where statutory action has been taken against two interceptions or a single outbreak).

- To identify priority pests for which new or revised publicity is needed.
- To advise on use of the Plant Health Information Warehouse.
- To advise on prioritisation of quarantine surveillance work.
- To agree publication of risk assessments for consultation, with an accompanying recommendation for action on each pest.
- To confirm or amend the recommended action, in the light of comments received from stakeholders after publication of risk assessments.
- To identify new or changed risks of sufficient magnitude which require political decisions on the appropriate risk management measures.
- To oversee production of contingency plans for appropriate pests.
- To identify research needs related to issues considered.
- To agree UK positions and attendance for SCPH meetings.
- To advise and input to any governance arrangements involving external stakeholders.
- To exchange information and experiences on pest incursions and outbreaks and ensure effective responses to such incidents.

Annex 2 – UK Plant Health Governance

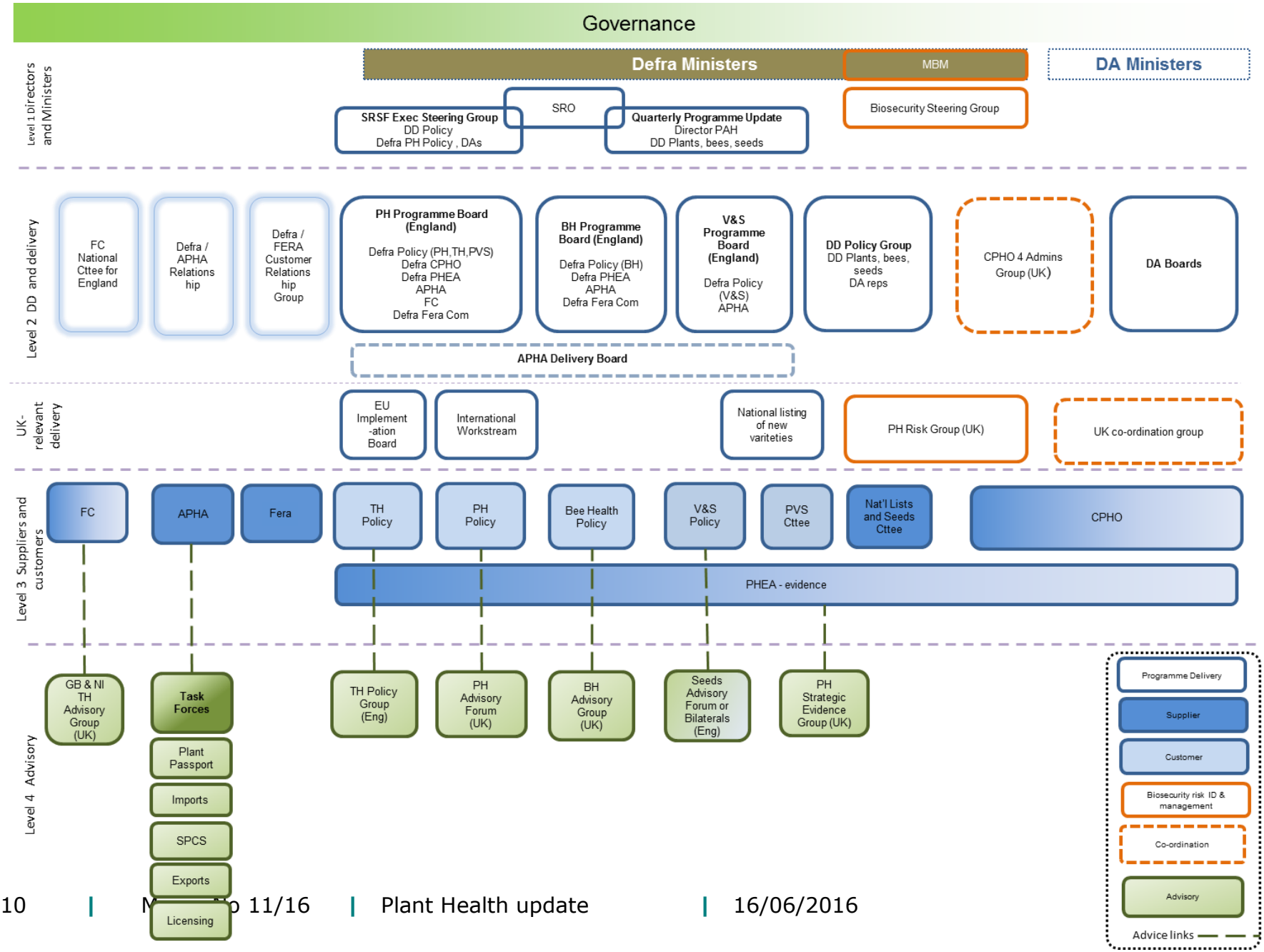

Table 1 – Unmitigated UK relative risk rating ≥ 100

Pest	Name	Details	Presence
Phytophthora ramorum	Ramorum shoot dieback;	Pathogen of larch and other hosts subject to EU emergency legislation. A containment strategy is in place in the UK reflecting its presence in wider environment/forestry settings in some areas. EU regulatory status is under review.	Widely present in the UK
Agrilus planipennis	Emerald Ash Borer	Damaging pest of ash, spreading in Russia. Regulated at the EU level, which will help mitigate risks associated with movements in trade, but risks associated with firewood movements need to be further assessed. Europe wide surveillance is needed, especially in countries in the eastern fringe of the EU and non-EU EPPO countries.	Absent
Ips typographus	Spruce bark beetle	The eight-toothed European spruce bark beetle is not believed to be present in the wild in Great Britain, but live adults have occasionally been trapped during routine monitoring at sites such as mills and ports handling imported wood. It could cause significant damage to Britain's Sitka spruce-based forestry and timber industries if it became established in British forests. EU regulated pest of conifers. UK has PZ Status that appears to be effectively mitigating the risk of entry.	Absent
Hymenoscyphus fraxineus	Ash dieback	Fungal disease of ash trees with low levels of tolerance in the UK ash population anticipated. Chalara management plan in place, and significant research into the pathogen and host genetics have been undertaken.	Widely present in the UK
Agrilus anxius	Bronze birch borer	Bark beetle present in the US. Recognised as a significant threat to birch but EU regulation should help to mitigate the threat.	Absent
Ceratocystis fagacearum	Oak wilt	Fungus causing impacts on oak in the USA. Research will assess the threat to UK species of oak and a review of EU regulations should be considered to strengthen protection.	Absent
Dendroctonus valens	Red turpentine beetle	Bark beetle native to the Americas but causing serious damage to pine trees following its introduction to China. Existing regulations provide protection against risk of introduction; although residual pine bark sometimes remains on packaging material and manufactured products. Research on fungal species will help better assess the susceptibility of UK pine species and to prepare a PRA. Targeted surveillance to be carried out at points of entry.	Absent
Dendrolimus sibiricus	Siberian silk moth	Serious pest of coniferous forests in Russia. Natural spread may eventually lead to introduction in the UK. In the interim measures should be taken to prevent introduction and to prepare industry for arrival.	Absent

Thaumetopoea processionea	Oak processionary moth	Pest of oak which has both plant and human health impacts. EU regulation in place to protect pest free areas. Containment strategy in place to prevent spread from infected sites in London. Stakeholder groups will be a valuable contribution to monitoring.	Present in SE England
Dendrolimus pini	Pine tree lappet moth	Native of continental Europe, Russia and Asia, where it causes periodic, large-scale damage to pine plantations. If statutory action continues, EU regulation should be considered e.g. PZ status.	Present in N Scotland
Phytophthora kernoviae		Pathogen of certain tree and shrub species; subject to a containment strategy the UK.	Widely present in the UK

Table 2 – Mitigated UK relative risk rating ≥ 60

Pest	Name	Details	Presence
Phytophthora ramorum	Ramorum shoot dieback	Pathogen of larch and other hosts subject to EU emergency legislation. A containment strategy is in place in the UK reflecting its presence in wider environment/forestry settings in some areas. EU regulatory status is under review.	Widely present in the UK
Hymenoscyphus fraxineus	Ash dieback	Fungal disease of ash trees with low levels of tolerance in the UK ash population anticipated. Chalara management plan in place, and significant research into the pathogen and host genetics have been undertaken.	Widely present in the UK
Agrilus planipennis	Emerald Ash Borer	Damaging pest of ash, spreading in Russia. Regulated at the EU level, which will help mitigate risks associated with movements in trade, but risks associated with firewood movements need to be further assessed. Europe wide surveillance is needed, especially in countries in the eastern fringe of the EU and non-EU EPPO countries.	Absent
Bacterial infection	Acute Oak Decline	Serious disorder of oaks likely to be caused by a complex of organisms. Eradication is not feasible, but good silvicultural practices could help to reduce spread and impacts.	Present from East Anglia through to the Midlands of England.
Agrilus biguttatus	Oak splendour beetle	Native beetle attracted to stressed trees and which is one of the biotic factors contributing to Acute oak decline above. Good silviculture practice can help to mitigate the decline in tree health.	Much more widely present than formerly assumed.
Heterobasidion irregulare	Conifer fungus	Fungal pest of pine present in North America and Italy. Could potentially be damaging if introduced to the UK and EU regulation should be considered.	Absent