

TREE HEALTH UPDATE**Purpose**

1. To update the committee on various tree health issues.

Recommendation

2. The National Committee are invited to note this report and comment accordingly.

Background

3. The Tree Health Management Plan focuses operational activity particularly on oak processionary moth, *Phytophthora ramorum* and Chalara. The FC was provided with £3.29m of extra resources in 2014/15 from the plant health business case in order to pursue actions on these pests and diseases together with wider tree health activity.

Oak processionary moth (OPM)

4. The committee considered a substantial update at their October meeting. There has been positive progress since that meeting on the two areas on which the committee expressed views.
5. Interim report: triage approval was eventually granted to publish this on 6 November. Ian Boyd expressed a preference not to publish 'interim' reports or partial data so it has been issued as a 'September update'. The publication delay allowed receipt of the majority of external data from e.g. Royal Parks, noted at the October ENC as missing (Appendix 1). The report was not commented on in the media in the first two days after publication.
6. 2015 strategy: a submission similar to the ENC paper was sent to Lord de Mauley. Rather than writing to local authorities he has agreed to attend a breakfast meeting to be hosted by the City of London (Mark Boleat, Chairman of Policy), to which the leaders of the nine least engaged local authorities have been invited. This has been helpfully facilitated by Sue Ireland (Chair, London OPM Advisory Group and Director, City of London Open Spaces). The meeting will be supported by Nicola Spence (Chief Plant Health Officer) and Andrew Smith. The difficulty of containing the West London population is recognised and we will cease to use this descriptor overtly for ongoing action.
7. A lessons learnt workshop was held with currently engaged partners at the end of October. This highlighted a range of potential improvements for next year. Local Authorities on the periphery of the current population extent

will be engaged via a series of one to one and group meetings over the winter to ensure they are fully prepared.

8. A review of the plant health budget allocations has enabled us to plan for some intensive winter survey. This will be guided by the results of the pheromone trapping, which on further analysis by number of moths per trap (Appendix 2) has indicated the likelihood of unidentified infestations to the north and south east of the West London population.

Chalara

9. Appendix 3 shows current known distribution. This is the result of summer survey, where we surveyed within 30km of known infections, plus further extensions where new infection was found on the edge of the survey area. A new area of infection has been discovered in Lancashire, together with the first infected hectad (10 km square) in Cumbria. We estimate 18% of hectads in England are now showing signs of infection, see table 1 below. However, Scotland is undertaking no systematic survey, so the table may under represent infection there.

Table 1: Hectads showing Chalara wider environment infection

	2012	2013	2014	Total	% of all sqs in country
Scotland	7	5	12	24	2.2%
England	82	60	135	277	18.1%
Wales	0	1	1	2	0.8%
N Ireland	0	0	0	0	0.0%
UK (total)	89	66	148	303	10.7%

10. The map is now available on our website as a live 'viewer' developed by Fera, which allows the user to zoom to particular locations and to see background map context.

11. The extent of Chalara infection, and rapid decline seen in parts of East Anglia and Kent, has caused stakeholders to question the validity of the modelling work undertaken by Cambridge University. It is recognised that the modelling is subject to three key areas of uncertainty, all of which are known to have been tested since the last modelling earlier in 2014:

- a) Input data: such as host distribution and timing of first infections. It is likely that wider environment infection was present in the east somewhat earlier than previously recognised. A disc taken from the trunk of a mature infected tree by the Tree Council indicates sudden reduction of growth about 10 years ago, as might be expected with onset of disease. Further samples and analysis would be needed before confirmation of a trend.
- b) Science of spread: although understanding has improved, many aspects are still not fully understood.

c) Presentation and interpretation of the maps: our survey map simply shows presence of infection, not severity. The Lancashire area appears significant on the map but unlike East Anglia we estimate less than 1% of trees are currently infected in that area. Similarly the modelling maps can be misunderstood, stakeholders have read into the green colour attributed to Lancashire for 2018 that there should be no infection there by that time, however, the colour banding represents 0-25% infection level. In practice, even in East Anglia infection levels are still locally variable.

12. It is likely there is further infection in England not yet detected, we probably have not found the outer extent of the Lancashire cluster and had to curtail survey with the onset of leaf senescence in autumn. Ideally we might survey all 1250 'uninfected' hectads next year, but the cost at approximately £175,000 is unlikely to be affordable. Indeed, in terms of 5/10/15% saving scenarios for 2015/16 we have had to propose to drop any proactive Chalara survey on the basis that unlike OPM and Phytophthora the results are not used to direct action. Similarly in an ideal world we would find a means to indicate on survey maps the degree of infection severity, however, there is no cost effective means of producing the survey data needed to do this.

Phytophthora ramorum

13. It has been a relatively modest year for *Phytophthora ramorum*, we have so far identified around an additional 250ha of infections, see Appendix 4 for situation report. Although some lower priority sites are still to be investigated this compares with 800ha last year and 500ha the previous two years. Generally sites are in the vicinity of previous infections, see map at Appendix 5.

Dothistroma needle blight (DNB)

14. *Dothistroma septosporum*, commonly known as Dothistroma needle blight (DNB) is a disease of pine trees. Although first noted in Great Britain in the 1950s it started to have noticeable effect on Corsican pine (CP) on the Public Forest Estate (PFE) in the late 1990s and early 2000s. An action plan was put in place for the estate which includes heavy thinning of crops and underplanting with alternate species, at the same time advice was promulgated to the private sector.

15. In the meantime DNB has become much more prevalent in Scotland with severe effects on lodgepole pine and infections of Scots pine (SP), including in the totemic Caledonian pinewoods. As there was an absence of data on the status of DNB on SP in England we undertook a Phase 1 'presence' survey during summer 2014. Because of the need to look at SP of a certain age, for logistical simplicity sites from on the PFE were sampled across England. The results are shown numerically in table 2 and on the map at Appendix 6.

Table 2: Dothistroma needle blight survey 2014 results

Forest District	West England	East England	Central England	North England	Yorkshire	South England	Total
Sites surveyed	61	160	57	183	86	28	575
Sites infected	47	122	34	162	68	17	450

16. As can be seen the presence of DNB is widespread in SP. In itself this is not particularly surprising. A follow up survey in the winter will return to a subset of the positive sites to investigate severity – by examining needle retention. From table 3 it can be seen CP is predominately on the PFE, whereas SP is predominately held by the private sector with the total area of SP being 50% greater than CP. The concern is that SP may be exhibiting growth reductions as has occurred with CP on the PFE. It is likely that SP on the PFE may be in worse condition than the private sector because it is more likely to be in close proximity to heavily infected CP. Results from phase 2 will be analysed to see if there is any trend in infection intensity and distance from CP.

Table 3: Principle conifer species in England

Principal species	FC	Private sector		Total
	area (000 ha)	area (000 ha)	SE%	area (000 ha)
England				
All conifers	127.5	192.6	2	320.1
Sitka spruce	47.8	33.5	8	81.3
Scots pine	16.6	49.9	6	66.5
Corsican pine	27.1	15.8	11	42.9
Norway spruce	6.9	22.1	8	29.0
Larches	10.1	33.9	6	44.0
Douglas fir	9.8	15.6	10	25.4
Lodgepole pine	4.5	3.6	20	8.1
Other conifers	4.8	19.2	9	23.9

Import interceptions

17. Dunnage is wood used to wedge or support cargo during transport which if not properly treated represents a potential plant health threat. The Plant Health Directive requires that all dunnage associated with imports from third countries must be subject to a phytosanitary treatment and marked according to international standards for wood packaging. It is especially important that these standards are applied where low quality and low value wood is used from sources with unknown plant health status.

18. Due to the potential level of plant health risk and the fact that dunnage (and wooden packaging more generally) is associated with a broad range of imports, enhanced inspection of such material was one of the priority actions funded through enhanced Defra funding for plant health.

19. Significant interceptions have been made of shipments from Turkey, India and Ukraine. This included not compliant packaging and in one case

presence of live pests. All intercepted dunnage has been either been destroyed or is scheduled to be destroyed at the ports under notice and at the cost of the importer. Representation has been made to the National Plant Protection Organisations of the third countries concerned. Pheromone traps are in place at the ports and are being monitored to check for any insect presence.

20. Intelligence from some port authorities has enabled the tracking of future shipments enroute, ensuring they can be met at port. Overall interceptions are around three-fold higher than the same period last year and are mapped at Appendix 7.

Forestry Commission Interception chart 2014							
Material	April	May	June	July	August	September	October
Dunnage	9	15	5	3	3	5	1
Wood packaging	14	8	4	3	3	3	3
Controlled timber	2	2	1	3	2	3	0
Total	25	25	10	9	8	11	4

Resource Implications

21. The extra 2014/15 funding is fully deployed, and all new staff in post. 2015/16 was planned to have 10% lower spend at £3.024m. Against this reduced figure we have undertaken a 5/10/15% savings scenarios, which removes cash activity from a number of areas such as OPM, Chalara survey, aerial survey and general surveillance.

Risk Assessment

22. Actions referred to aid mitigation of risk FS1 – failure to control tree pests and diseases.

Communications

23. A tree health communications strategy has been developed by our communications consultants, with input from stakeholders. This includes a segmentation of stakeholders. An action from this work is to pilot a national and regional (north west) external tree health newsletter. Subject to Defra sign-off, this is due to occur before Christmas. Forest Research continues to lead work on the redevelopment of Tree Alert for the spring, which will align the needs for a much more sophisticated product that produces a much higher quality of output with a smooth transition from the current mobile app and its in the field capabilities.

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