

## **UPDATED Q&As for outbreak of Asian Longhorn Beetle near Paddock Wood Kent**

### **PADDOCK WOOD SPECIFIC QUESTIONS:**

**1. Do people outside the 2km buffer zone need to take any precautions?**

No. The buffer zone is introduced as a precaution so that Fera and Forestry Commission Inspectors can survey the area to ensure the beetle hasn't spread outside the infestation zone. See also Q12.

Residents and landowners outside this area are free to carry out their normal gardening work etc as normal, while being aware that they should report any potential signs of the beetle to the Fera Plant Health Helpline on 0844 248 0071

**Added 13/6/12**

**2. Why has the infestation area been extended?**

An Ash-leaved maple tree (*Acer negundo*) at the northern most edge of the existing infestation zone was felled as part of the precautionary felling of all potential host trees within this zone. This tree had not shown any sign of being infested when surveyed. However, once the tree was chopped up and examined (as is routinely done with all the trees in the infestation zone), several larvae were found inside.

As this tree was on the edge of the initial zone, the zone (i.e. an area with 100m radius) falls outside this.

**Added 13/6/12**

**3. Where was this outbreak found?**

An area of Kent near Paddock Wood.

**4. How was this outbreak detected?**

It was discovered during a routine annual survey of a site near Paddock Wood by Forest Research scientists. They had been monitoring an area around a site where one adult Asian longhorn beetle had been found in 2009. The scientists noticed suspicious marks on a willow tree – this was the first evidence of possible infestation. On breaking up samples of the tree several larvae were discovered. Morphological examination and DNA sequencing of the larvae confirmed that they were Asian longhorn beetle (*Anoplophora glabripennis*).

**5. Where did it come from?**

It's not certain, but it is thought the original beetles may have come out of wood packaging material which had been used to import slate from China at a site next to where the outbreak was located. All wood packaging material imported into the EU should be marked to show that it has been treated to reduce the risk of carrying quarantine pests. Untreated wood packing is a known pathway for Asian longhorn beetles. It is illegal to import wood into the UK that shows signs of the beetle.

**6. How bad is the infestation? How many trees have been found to be infested?**

As felling work has progressed a few more trees have been identified as being infested or highly likely to be infested, bringing the total to 65 trees. All of these trees are located within the existing infestation zone and therefore this will not affect the size of the existing zone. Over 100 live larvae have been found to date.

The infested zone (i.e. the area within a 100m radius of each infested tree) covers an area of over 8 hectares (over 80,000m<sup>2</sup>). Surveying of the 2km buffer zone will take place during the summer so it is still possible that we will find more infested trees.

**Last updated 13/06/2012**

## **7. What are you doing about this outbreak?**

- i) Survey work has been completed in the infestation zone (i.e. an area with 100m radius around each infested tree) and within a zone with a 500m radius from the edge of the infestation zone. Tree felling of infested and non-infested host trees within the infestation zone is underway, including the newly extended area.
- ii) A public meeting was held at Hop Farm, Kent on Wednesday 25th April to provide local residents with information about the pest and the action being taken. Presentations about the biology of the beetle and the action being taken to eradicate it were provided by Fera and the Forestry Commission. The opportunity for questions and discussion following these presentations was well received.
- iii) A leaflet about the beetle and what the public can do to help stop it spreading has been distributed to residential properties within a buffer zone (i.e. a 2km radius from the edge of the infestation zone), which includes areas of Paddock Wood and East Peckham.
- iv) A further public awareness exercise over the whole area (and nationally) is being planned for mid-July 2012, just before the start of the adult beetle emergence period. This will ask the public to be on the lookout for adult beetles, or signs of them, and report any sightings to Fera.
- v) A meeting was held on Thursday 12<sup>th</sup> April at the outbreak site to provide information about the beetle to tree professionals based in the area, together with an opportunity for them to see the signs of infestation for themselves. This was aimed at helping them to spot the signs of the beetle during their working activities.
- vi) Movement restrictions on potentially infested host plants (with stems over 2cm in diameter) and woody material for a commercial retailer in the affected areas have been implemented by the Fera Plant Health and Seeds Inspectorate and Forestry Commission by way of a plant health notice.
- vii) Residents and landowners in the 2km buffer zone have been asked to hold back from any felling/tree surgery or pruning of woody shrubs in gardens. This is because the beetle's larvae live in trunks and branches so it is important to make sure these are properly disposed of. Any residents that do need to prune or fell trees or woody shrubs, have been asked to ensure that all woody material is taken to an appropriate Kent County Council waste transfer station or recycling site.

**Last updated 13/06/2012**

## **8. Will trees need to be destroyed?**

- i) Scientists from Fera and Forest Research have advised that early precautionary felling of any of the main host tree species present within the infestation zone offers the best prospect of successful eradication. This concurs with scientific evidence from outbreak management elsewhere in Europe and further afield.
- ii) The recent finding of larvae within a tree that had not shown any signs of infestation when surveyed highlights how important it is to fell all potential host trees in the infestation zone. All residents within the infested zone have been contacted and are aware of the action that needs to be taken to eradicate the outbreak.
- iii) Known hosts include: *Acer* (maples and sycamores); *Aesculus* (horse chestnut); *Albizia* (Mimosa, silk tree); *Alnus* (alder); *Betula* (birch); *Carpinus* (hornbeam); *Cercidiphyllum japonicum* (Katsura tree); *Corylus* (hazel); *Fagus* (beech); *Fraxinus* (ash); *Koelreuteria paniculata*; *Platanus* (plane); *Populus* (poplar); *Prunus* (cherry, plum); *Robinia pseudoacacia* (false acacia/black locust); *Salix* (willow, willow);

iv) Although the larvae are unlikely to emerge as adult beetles before the end of June in the UK, it is important that we remove all infested and potentially infested trees as early as possible before then.

*Last updated 13/4/2012*

## 9. What are the implications for the area?

i) Currently we have found 65 trees infested or highly likely to be infested. An area with 100m radius from each infested tree has been designated as the **infestation zone**. This zone currently covers an area of over 8 hectares (over 80,000m<sup>2</sup>). Felling of all infested trees and main host trees is underway within this area. All felled material is being held locally for inspection before being incinerated on-site.

ii) Residents and landowners within the infestation zone have been contacted by Fera inspectors to arrange for any main host trees to be removed.

iii) Movement restrictions on host plants and woody material for two commercial retailers in the affected areas have been implemented by the Fera Plant Health and Seeds Inspectorate and Forestry Commission by way of plant health notices.

iv) A **buffer zone** has also been established. Currently this is an area with a 2km radius from the outer edge of the infestation zone. However this will be reduced to 1km if possible once the area has been surveyed. Decisions on further felling will be taken in light of the results of the survey work.

v) A leaflet about the beetle and what the public can do to help stop it spreading has been distributed to residential properties within the buffer zone, including areas of Paddock Wood and East Peckham. The leaflet asks residents to hold back from any felling/tree surgery or pruning of woody shrubs in gardens. This is because the beetle's larvae live in trunks and branches so it is important to make sure these are properly disposed of. Any residents that do need to prune or fell trees or woody shrubs, have been asked to ensure that all woody material is taken to an appropriate Kent County Council waste transfer station or recycling site.

*Last updated 13/06/2012*

## 10. What exactly is the nature of restrictions on the movement of host material in the infested and buffer zones?

We are advising local people not to undertake any tree surgery or felling until we have completed our survey, unless it is necessary for safety reasons, or to move any logs or branches that have been recently felled. The movement of any infested material could carry the beetle to new locations. Also, the larvae can complete their development in felled trees or branches if left untreated, especially in the summer months, so this material would present an ongoing hazard.

Fera has served notices on plant retailers in the affected area, to prevent the movement of any potentially infested host plants or host plant material (with stems over 2cm in diameter)

*Last updated 04/05/2012*

## 11. Are there any restrictions on movements of people in the outbreak and buffer zones?

No, there is no reason to restrict people's movements. The only possible restrictions will be brief exclusions for safety reasons during any tree felling that might become necessary.

*Added 19/4/2012*

**12. What is the “buffer zone” for?**

The lifecycle from egg to beetle is one to two years in parts of Asia, possibly longer in the UK. Beetles emerge during the summer and will mate and lay eggs, after which they die. Because it is often the resulting emergence holes that are the earliest evidence of an outbreak, it is important to survey and monitor the surrounding area to ensure the adults have not already spread to neighbouring hosts. The “buffer zone” surrounding the infested zone at an outbreak site forms an essential part of the on-going management and eradication programme. Within the buffer zone, Fera’s Plant Health Inspectors will survey potential host plants for signs of the pest and a public awareness campaign will be implemented. If an infested host is detected within the buffer zone, then this will become the centre of an outbreak and the original infestation and buffer zone will be extended as appropriate.

**13. How long will restrictions remain in place?**

The restrictions imposed under the demarcated zone will remain in place until we are certain that the outbreak has been eradicated. For example, for outbreaks elsewhere this has taken at least four years.

**14. Why are we destroying trees? Why not just leave it?**

The beetle, and its larvae, would be extremely damaging if it became established in the UK. This pest has the potential to cause severe physical damage to broadleaved trees.

Known hosts include: *Acer* (maples and sycamores); *Aesculus* (horse chestnut); *Albizia* (Mimosa, silk tree); *Alnus* (alder); *Betula* (birch); *Carpinus* (hornbeam); *Cercidiphyllum japonicum* (Katsura tree); *Corylus* (hazel); *Fagus* (beech); *Fraxinus* (ash); *Koelreuteria paniculata*; *Platanus* (plane); *Populus* (poplar); *Prunus* (cherry, plum); *Robinia pseudoacacia* (false acacia/black locust); *Salix* (willow, willow); *Sophora* (Pagoda tree); *Sorbus* (mountain ash, whitebeam etc); *Quercus palustris* (American pin oak); *Quercus rubra* (North American red oak); and *Ulmus* (elm).

Larvae within wood will not survive if the wood is chipped to lengths no longer than 25mm. Once the wood has been chipped in this way it is deemed safe and can be disposed of.

**15. Can’t pesticides be used instead of destroying trees?**

The only insecticides that could be considered are not completely effective so there is no real substitute for tree removal as a means to eradicate Asian longhorn beetle.

**16. What risk does the ALB pose to wood in houses?**

ALB does not attack wood in houses. The adults only lay their eggs on living trees, and although the larvae can continue to develop in felled wood, the early-stage larvae require the conditions and nutrition found in living wood.

*Added 19/4/2012*

**17. Is compensation available for all the trees/shrubs you will destroy in people’s gardens?**

No compensation is available when plants have to be destroyed to eradicate or contain plant pest outbreaks (see response below). Depending on individual circumstances, householders may be eligible for funding sources such as the Forestry Commission Woodland Grant scheme. If the owner wished to apply for a woodland grant, and qualified, then they would be paid, regardless of whether previous trees were felled under notice or not. We appreciate the help provided by householders in combating this serious pest and safeguarding their local environment from damage which could be caused by this pest if left unchecked.

**18. Is compensation available to owners of nurseries/garden centres etc where plants will be destroyed?**

The longstanding policy of successive Governments is that compensation is not paid when plants have had to be destroyed to eradicate or contain pest outbreaks. It is felt that the limited resources of the Plant Health Service are better employed in the detection and identification of outbreaks, and research into risk and risk-management measures.

**19. Are you recovering the cost of the felling work from residents/landowners?**

As we are getting excellent cooperation and voluntary support for the action required there are currently no plans to recover the cost of the work

*Added 04/05/2012*

**20. How many trees have been cut down? How many trees are likely to be cut down?**

Within the original infestation zone approximately 1300 trees have been felled. However this number will increase now that the infestation zone has been extended. Unfortunately felling has taken longer than initially predicted due to a number of factors including the poor weather in the region weather and because all felled material must be closely examined and checked for Asian longhorn beetle larvae by Forest Research entomologists and Fera Plant Health and Seeds Inspectors.

*Last Updated 13/06/2012*

**GENERIC QUESTIONS:**

**21. What does the beetle look like?**

Adult beetles are large (around 20 - 40 mm long), shiny black with variable white markings. Particularly distinctive are their antennae, which are longer than their bodies (up to twice the body length) and are black with white/light blue bands. In appearance, they are almost identical to Citrus longhorn beetle, (*Anoplophora chinensis*) another non-indigenous longhorn beetle that threatens trees in Britain. Fera has produced a video on the Citrus longhorn beetle which can be viewed at:

<http://www.fera.defra.gov.uk/plants/plantHealth/pestsDiseases/clb/clbVideo.cfm>

**22. What are the signs?**

The most obvious symptoms of Asian longhorn beetle damage are the circular adult exit holes which are around 10 mm in diameter and are generally found in the main trunk and branches.

Other signs which may be present but are much less obvious, include, piles of sawdust like droppings at the base of infested trees, scraped bark and possibly sap bleeding from the sites where eggs have been laid and bark feeding damage on smaller branches and shoots.

**23. What should I do if I find one?**

Anybody finding one of these distinctive beetles should secure the specimen (best in a sealed glass jar) and contact the Fera Plant Health Helpline 0844 2480071 or email [planthealth.info@fera.gsi.gov.uk](mailto:planthealth.info@fera.gsi.gov.uk). Ideally an Inspector can then collect it. The beetles are not harmful to humans, though they should be handled with caution as they can nip, but the nip is unlikely to penetrate the skin or draw blood. Nor is it poisonous. For most people the nip is likely to be no more uncomfortable than a nip by one of our larger native beetles.

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Fera should also be notified if there is other evidence of infestation by the Asian longhorn beetle such as exit holes in the trunk of host plants. Exit holes are generally around 10mm in diameter and found in the main trunk and branches. There is a legal obligation to report the beetle or suspicious signs included in the Plant Health (England) Order 2005 and the Plant Health (Forestry) Order 2005. These are available at [www.legislation.gov.uk](http://www.legislation.gov.uk)

**24. Is it just from China, or can it come from other places?**

Asian longhorn beetle is indigenous to China, but is also known to be present in the Korean Peninsula. There have been outbreaks in the US and some EU member states.

*Added 19/4/2012*

**25. Can it survive in the UK?**

Analysis of climate data by scientists at Fera suggests that most of England and Wales and some warmer coastal areas of Scotland are suitable for beetle establishment, but south-east England and the south coast are at greatest risk.

**26. How long do the beetles live?**

The lifecycle from egg to beetle is one to two years in Asia, possibly longer in the UK. Beetles emerge from spring onwards and will mate and lay eggs, after which they die.

**27. What are the main host trees for ALB?**

Known hosts include: *Acer* (maples and sycamores); *Aesculus* (horse chestnut); *Albizia* (Mimosa, silk tree); *Alnus* (alder); *Betula* (birch); *Carpinus* (hornbeam); *Cercidiphyllum japonicum* (Katsura tree); *Corylus* (hazel); *Fagus* (beech); *Fraxinus* (ash); *Koelreuteria paniculata*; *Platanus* (plane); *Populus* (poplar); *Prunus* (cherry, plum); *Robinia pseudoacacia* (false acacia/black locust); *Salix* (willow, willow); *Sophora* (Pagoda tree); *Sorbus* (mountain ash, whitebeam etc); *Quercus palustris* (American pin oak); *Quercus rubra* (North American red oak); and *Ulmus* (elm).

*Added 19/4/2012*

**28. Is oak a 'host' species?**

ALB does not appear to infest European oak species (including English oak, *Quercus robur*).

*Added 19/4/2012*

**29. What fruit tree species does it attack?**

The most likely species of fruit trees that could be infested by the beetle is *Prunus* (cherry, plum). However, apple and pear species are also potential hosts, although less favoured.

*Added 19/4/2012*

**30. What timber species does it attack?**

Principally broadleaved species such as ash, birch, beech, alder, sycamore, poplar and willow. It does not infest conifer species such as spruces, pines, firs and larches, which are the major commercial timber species grown in Britain. Although ash, birch, beech, alder, sycamore, poplar and willow are grown for various specialist timber markets, their principal values lie in their contributions to the landscape, biodiversity, shade and shelter and other environmental and social benefits.

*Added 19/4/2012*

**31. How far can the beetle fly?**

The beetles tend to stay close to the site of original infestation in the early stages of an outbreak. However, experimental data has shown that the beetles can fly hundreds of metres and are capable of flying distances of over 2km.

**32. What are the implications of the fact that the life cycle from egg to beetle could be more than two years in the UK?**

In North America and central and southern parts of Europe, ALB completes its life-cycle in 1-2 years, but in cooler regions the life-cycle can take up to 3 or 4 years. It is likely that in southern Britain most individuals will complete their development in 2 years, and climatic mapping work conducted at Fera suggests that conditions along the south coast and in the south east of England would be suitable for a 2 year life cycle of the pest. Further north, the beetle is less likely to be able to complete its lifecycle in 2 years. There is always an element of uncertainty about these predictions though, which results from very local variations in climate, our currently changing climate and uncertainties about the origin of the invasive beetles.

*Added 19/4/2012*

**33. What can be done to stop more of the beetles getting into this country from abroad?**

Fera's Plant Health and Seeds Inspectorate inspect imported material and carry out surveillance of plants moving in trade. The Forestry Commission also monitors wood packaging material, which is the main vector for ALB. This programme is kept under review in response to new or revised threats. The aim is to prevent introductions and outbreaks, but should one occur, it is tackled as a high priority. Information on the International Standard for Phytosanitary Measures No. 15 (ISPM15) on Guidelines for regulating wood packaging material in international trade can be found on the Forestry Commission website at <http://www.forestry.gov.uk/forestry/INFD-6NJDRJ>.

*Last updated 19/4/2012*

**34. How many outbreaks has the UK had previously?**

The UK has not had any outbreaks prior to this one. There have been occasional findings of the adult beetle, the last one being found in 2010, so it is an issue we were already focused on. Our aim is to prevent outbreaks, but should one occur, it is tackled as a high priority.

**35. What is the situation elsewhere in the EU?**

The Asian longhorn beetle (*Anoplophora glabripennis*) is an Annex IAI listed pest in the Plant Health Directive 2000/29/EC, a harmful organism whose introduction into, and spread within, all Member States shall be banned.

It is widely distributed across China where it is a pest of many deciduous trees. During the last decade, as trade flow increased heavily between China and many western countries, the importation of large amounts of untreated or inappropriately treated wood packing material containing living larval stages of pests, led to multiple accidental introductions of *A. glabripennis* in North America and in Europe. Outbreaks have occurred in Austria (2001), France (2003), Germany & Poland (2004), Belgium, The Netherlands and Switzerland (2011), some of which are ongoing.

There have been a number of outbreaks in Italy where intensive surveys and eradication measures against *A. glabripennis* are continuing. See [http://www.eppo.org/QUARANTINE/anoplophora\\_glabripennis/ANOLGL\\_IT.htm](http://www.eppo.org/QUARANTINE/anoplophora_glabripennis/ANOLGL_IT.htm) for more information.