



# TREE RISK MANAGEMENT & TREE HEALTH

20<sup>th</sup> November 2019

Nick Bolton  
Director



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## LOCKHART GARRATT LTD

Environmental Planning & Forestry Consultants

- Established in 1998
- Fully serviced offices in Northamptonshire and Oxfordshire
- Background of Trees, Woodlands, Forestry and Environmental Land Management advice
- Expansion into Planning and Development areas
- Team of 35 across five key service areas
- Professional, Independent, Specialist Consultancy
- Vision focused on quality and growth

**“To see land and natural resources managed and used in a responsible and sustainable way”**



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## Lockhart Garratt Ltd

Environmental Planning & Forestry Consultants



**Arboriculture**  
*Focusing on the management and maintenance of trees*



**Ecology**  
*Ecological solutions to support the planning process and planning applications*



**Forestry & Woodland Management**  
*Managing over 8,000 ha of woodland from creation to harvesting*



**Landscape & Green Infrastructure**  
*Land management, landscape delivery and green infrastructure support*



**Minerals & Waste Restoration**  
*Informed landscape, restoration and environmental management services*



**Soils Survey & Advice**  
*Surveying soil resource to inform planning applications, and final land use for restoration design.*

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# TREE RISK MANAGEMENT AND TREE HEALTH

- Myth busting
- Tree Risk
- What the law requires
- What HSE expects
- Best Practice Guidance
- Managing Tree Risk
- Tree Health – Ash Dieback

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## MYTH BUSTING

- “My insurer says I have to inspect all my trees”
- “My insurer won't pay out if I don't undertake inspections”
- “HSE says I have to inspect my trees every year”
- “It's my land and I can choose to do or not do whatever I want”
- “I have ash dieback so I have to fell every ash tree”
- “Trees in tenanted properties are not my concern”
- “The local council will pay for ash trees dying on the roadside”



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## WHAT THE LAW REQUIRES

### Statute

- Occupier's Liability Acts 1957 and 1984  
Occupiers have a common duty of care to take all reasonably practicable precautions to ensure the safety of those on their land. Breaches of this duty could lead to a civil suit for damages.
- Health and Safety at Work Act 1974  
Statutory duties and related regulations to do all that is reasonably practicable to ensure that people are not exposed to risks to their health and safety.



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## WHAT ARE COURTS CONSIDERING??

### Case Law

- Bowen v The National Trust (2007)  
A land owner must have in place a reasonable system for assessing and managing tree related risk.
- Micklewright v Surrey County Council (2010)  
There is no law that requires a land owner to make his/her land completely safe.



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## WHAT ARE COURTS CONSIDERING??

### Legal Requirement – Case Law

- Poll v Bartholomew (2006)  
The person undertaking tree hazard inspections have the correct training and competence to do so.
- Stagecoach v Hind & Steel (2014)  
A landowner has a duty to undertake regular informal inspections of trees on his/her land, but is only required to act where a danger is apparent upon inspection.



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## RECENT DEVELOPMENTS

### Updates – Case Law

- Witley vs Cavanagh (2018)  
Estates must have an inspection regime that gives due consideration to the age and size of trees, relative to potential targets

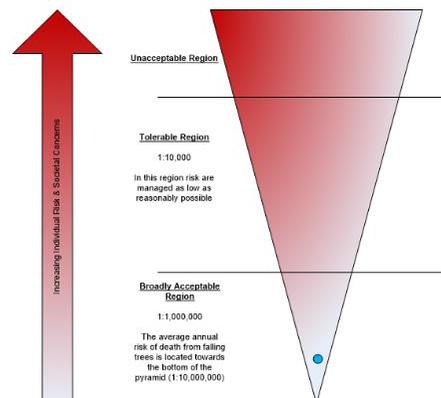


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## WHAT HSE EXPECTS

### Health & Safety Executive

- Reducing Risk, Protecting People – HSE's Decision-making Process  
Tolerability of Risk Framework – Defines everyday risk into three regions – Unacceptable, Tolerable and Broadly acceptable. The risk from trees falls into the broadly acceptable region.
- SIM 01-2007/05 - Management of the risk from falling trees  
Outlines the HSE guidance on the standard of risk management of trees, including risk assessment and routine checks by competent persons. It recommends that landowners should have in place a system to control risk from trees to employees, contractors and members of the public.



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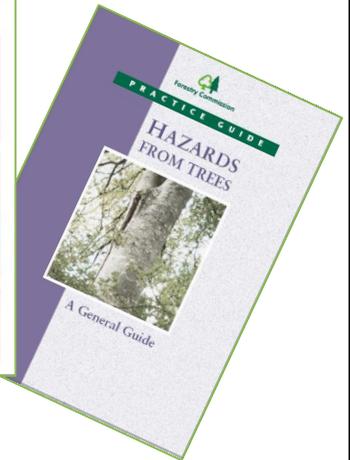
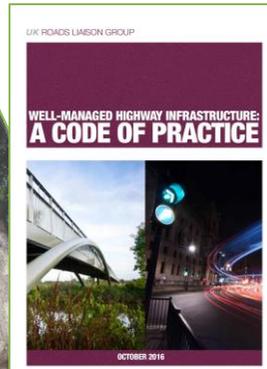
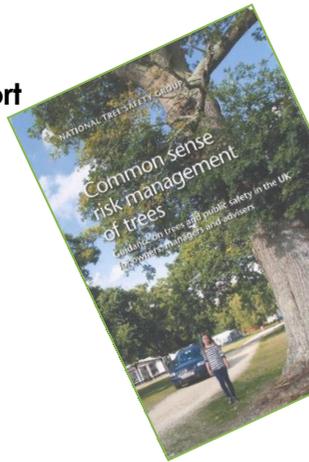
## BEST PRACTICE GUIDANCE

**National Tree Safety  
Group (2012)**

**Department of Transport  
Code of Practice 2016**

**Forestry Commission  
Practice Guide**

**Hazards From Trees  
(2000)**



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## INSURANCE – MISCONCEPTIONS AND MYTH

“My insurer says I have to inspect all my trees”

“My insurer won't pay out if I don't undertake inspections”

- The Purpose of Insurance (a layman's perspective)
  - Public Liability
  - Negligence
  - Recklessness
- What does your insurer need you to do?
  - Take reasonable steps



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## PUBLIC LIABILITY

- The default position of any public liability insurance is that cover is provided regardless of the insured's actions, subject to any reasonable care conditions.
- Tree owners who do not already have inspection schedules in place are more likely to produce claims, and therefore have conditions imposed by the insurer to mitigate the loss



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## NEGLIGENCE

- Public liability coverage is designed to pick up claims rooted in negligence
- "Negligence is the omission to do something which a reasonable man, guided upon those considerations which ordinarily regulate the conduct of human affairs, would do, or doing something which a prudent and reasonable man would not do." (Blyth vs Birmingham Water Works Co (1856))
- The court system decides through an objective test whether or not an action (or inaction) would be considered sound judgement by a "reasonable man". In this way, it ignores an individual's judgement and instead considers how one would be expected to act in a given circumstance



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## RECKLESSNESS

- Recklessness is a *subjective* rather than objective test. This means that in order to decline a claim based on recklessness, an insurer must be able to prove that, on the balance of probabilities, the insured knew that there was a specific risk involved with a course of action (or inaction) and, despite knowing there was a risk, continued with the course of (in)action - often referred to as "deliberately courting the risk".
- The failure to inspect a tree *may* be negligent (as it is generally reasonable to expect that a tree which might fail should be inspected) but would not be reckless unless the insured had knowledge of the actual, specific risk, or had failed to take reasonable care.
- The failure to take reasonable care has, repeatedly, been demonstrated to be a show of recklessness rather than negligence, with the leading case being *Sofi v Prudential Assurance* (1993).

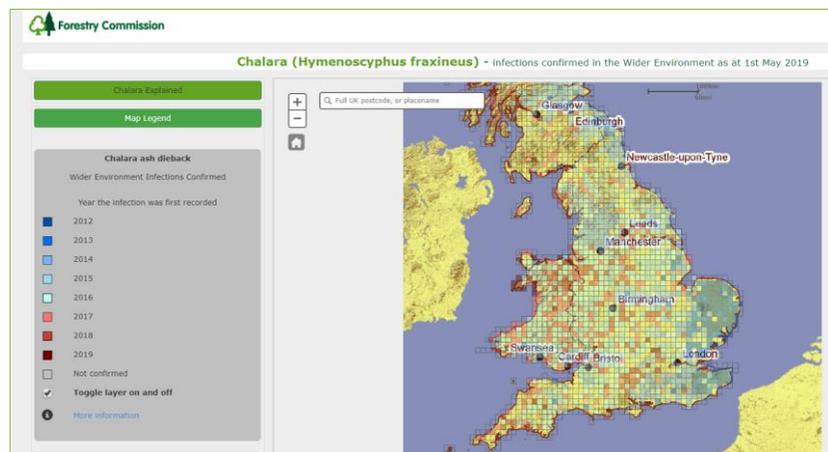


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## TREE HEALTH – ASH DIEBACK

### Ash Dieback

- Spread now across UK
- Defra Health & Safety Group Taskforce
- National Tree Safety Group
- Forestry Commission Management Guidance  
<http://www.forestry.gov.uk/ashdieback>
- Be pro-active!



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## WHY IS ASH IMPORTANT?



12%

of broadleaf woodland in Great Britain is ash



60m

estimated number of ash trees outside woodlands in the UK (higher end estimate)



9,500

ancient, veteran and notable ash trees have been recorded in the Ancient Tree Inventory



955

species associated with ash trees of which 45 are believed to have only ever been found on ash trees



£230m

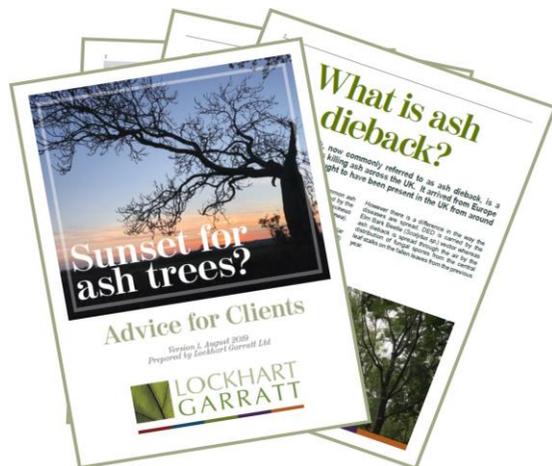
per/year estimated social/environmental value of ash

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## TREE HEALTH – ASH DIEBACK

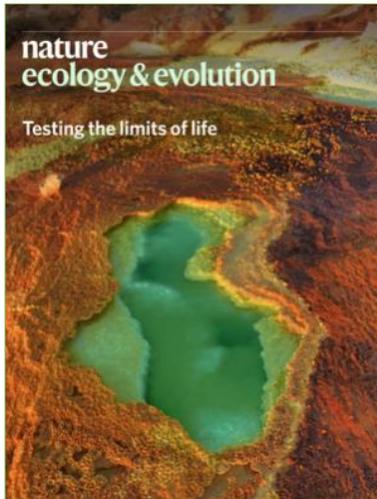
- Business as usual
  - Resource (inspect)
  - Approach (objectives)
  - Compliance (legal)
  - Execute (manage)
  - Replant

*Ash trees are an incredibly important part of our landscape and ecosystem, and care must be taken with management of such trees.*



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## ASH DIEBACK – CURRENT RESEARCH



Article | Published: 18 November 2019

### Genomic basis of European ash tree resistance to ash dieback fungus

Jonathan J. Stoeckl, Carey L. Metheringham, William J. Plumb, Steve J. Lee, Laura J. Kelly, Richard A. Nichols & Richard J. A. Buggs<sup>1</sup>

Nature Ecology & Evolution (2019) | Cite this article  
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#### Abstract

Populations of European ash trees (*Fraxinus excelsior*) are being devastated by the invasive alien fungus *Hymenoscyphus fraxineus*, which causes ash dieback. We sequenced whole genomic DNA from 1,250 ash trees in 31 DNA pools, each pool containing trees with the same ash dieback damage status in a screening trial and from the same seed-source zone. A genome-wide association study identified 3,149 single nucleotide polymorphisms (SNPs) associated with low versus high ash dieback damage. Sixty-one of the 192 most significant SNPs were in, or close to, genes with putative homologues already known to be involved in pathogen responses in other plant species. We also used the pooled sequence data to train a genomic prediction model, cross-validated using individual whole genome sequence data generated for 75 healthy and 75 damaged trees from a single seed source. The model's genomic estimated breeding values (GEBVs) allocated these 150 trees to their observed health statuses with 67% accuracy using 10,000 SNPs. Using the top 20% of GEBVs from just 200 SNPs, we could predict observed tree health with over 90% accuracy. We infer that ash dieback resistance in *F. excelsior* is a polygenic trait that should respond well to both natural selection and breeding, which could be accelerated using genomic prediction.

*“We infer that ash dieback resistance in *F. excelsior* is a polygenic trait that should respond well to both natural selection and breeding, which could be accelerated using genomic prediction.”*

*(Nature ecology & evolution, November 2019)*

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THANK YOU  
ANY QUESTIONS?

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