

Ash dieback action plan.

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What is ash dieback?

- ▶ A disease of our native ash trees *Fraxinus excelsior*.



What is ash dieback?

- ▶ Caused by the fungal pathogen *Hymenoscyphus fraxineus* (previously known as Chalara).
- ▶ Originated in Asia, present in UK since 1990's.
- ▶ Officially recorded in the UK in 2012.



What is ash dieback?

- ▶ Fungal spores spread on the wind and infect nearby trees.

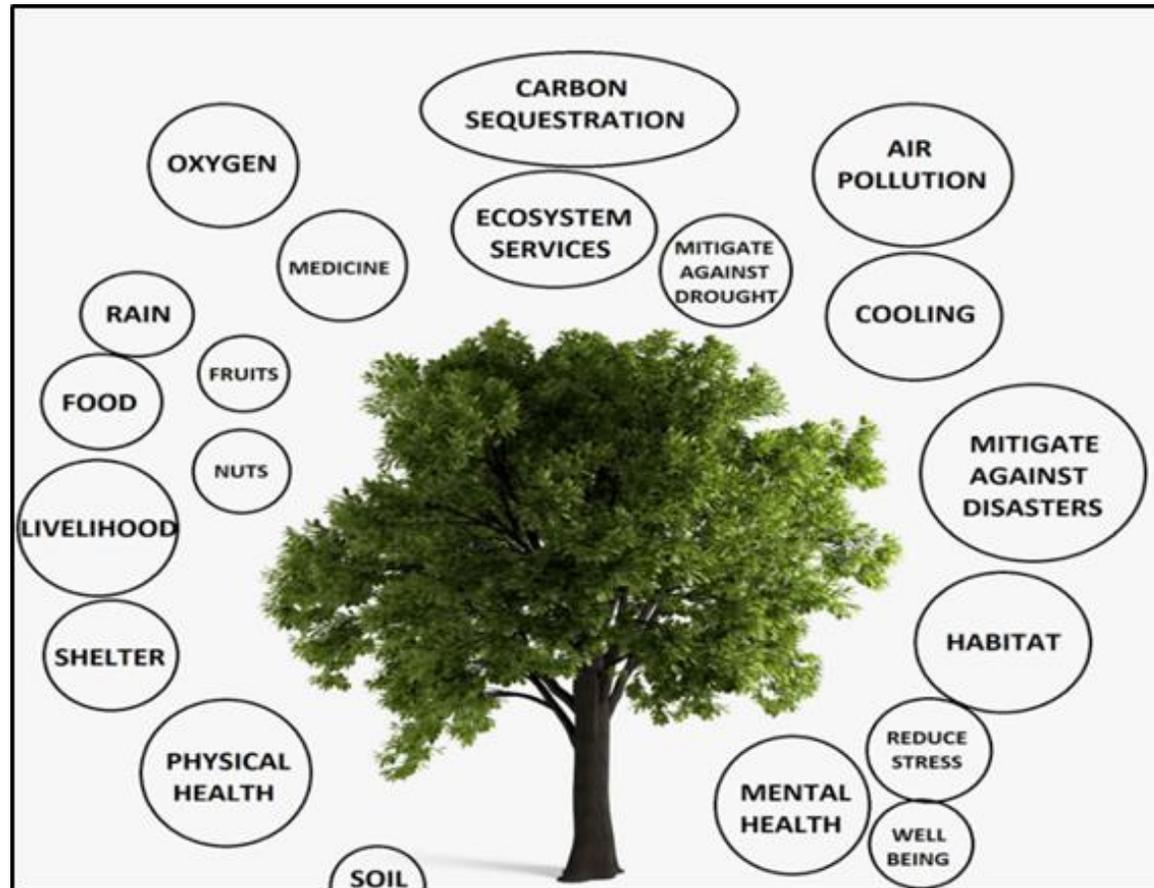


- ▶ Fungus moves from the leaves to branches and into main stem.



Impacts of the loss of ash trees.

- ▶ Loss of trees will change the landscape and woodland composition.
- ▶ Loss of “Ecosystem services” ash trees provide.
- ❑ Air pollution
- ❑ Carbon sequestration
- ❑ Flood prevention



Impacts of the loss of ash trees.

- ▶ Loss of biodiversity.
- ❑ 955 species use ash trees, 107 of them use little or nothing else.

| Organism | Level of association | | | | | Total |
|---------------|----------------------|-----------|------------|--------------|------------|------------|
| | Obligate | High | Partial | Cosmopolitan | Uses | |
| Birds | | | 7 | 5 | | 12 |
| Mammals | | | 1 | 2 | 25 | 28 |
| Bryophytes | | 6 | 30 | 10 | 12 | 58 |
| Fungi | 11 | 19 | 38 | | | 68 |
| Lichens | 4 | 13 | 231 | 294 | 6 | 548 |
| Invertebrates | 30 | 24 | 37 | 19 | 131 | 241 |
| Total | 45 | 62 | 344 | 330 | 174 | 955 |

Time line of ADB in Shrewsbury.

- ▶ First noticed by Countryside unit at Coton hill CW.
- ▶ First noticed affecting young/sapling trees.
- ▶ Later noted on larger trees.
- ▶ Spread to many other sites over the next 5 years.
- ▶ Raised with management Nov 2019.
- ▶ £100,000 funds allocated by Council.
- ▶ Countryside team tasked with producing an action and recovery plan.
- ▶ First ash survey conducted summer of 2020.
- ▶ Now present on all countryside areas and some STC land.

Ash Dieback Action Plan.



Shrewsbury Town Council
June 2020

Impacts of loss to STC

Health and safety.

- ▶ Increased health and safety issues due to declining Ash trees on roads, countryside sites, housing estates, schools, cycleways, bridle paths and footpaths.
- ▶ Risks to staff carrying out work on affected trees due to their brittle nature and unpredictable holding wood during felling.



Safety Guidance for Managers – Felling Dead Ash

April 2018

Background

Ash Dieback disease or Chalara (*Hymenoscyphus fraxineus*) is killing a very high proportion of our woodland Ash (*Fraxinus excelsior*) trees. The situation is compounded as the disease weakens the tree's natural immune system and allows the Honey fungus (*Armillaria mellea*) to attack, the result is that we will be harvesting trees which have a very high proportion of deadwood in the crown and are also likely to have no significant fibre strength at felling height.

It is therefore, essential that we consider how we plan our operations to remove the risk of accident or injury to chainsaw operators working in these areas. The primary consideration must be whether the job can be done by other means, the best control measure must be to use mechanical harvesting equipment where the operator is in a protective cab. Where this is not possible it is more important than ever that a chainsaw operator is both competent and properly equipped.

Additional Considerations

1. The increase in crown deadwood dramatically increases the risk of an operator being hit by falling branches and tops, this is most likely when the tree begins to fall or when wedges are being driven into the back of the tree, as the shock will vibrate through the stem and loose material will fall. It is essential then that operators retreat fully into their escape route when the tree begins to fall and that the use of traditional wedge techniques is minimised. Helmets and felling jackets will offer only limited protection from falling deadwood, there have already been incidents where helmets have failed, and operators have been seriously injured by even relatively small branches.

Impacts of loss to STC

Economic impacts.

- ▶ Increased liability from injury/death and damage to property.
- ▶ Purchasing and maintaining extra equipment.
- ▶ Cost of hiring MEWP's etc. and competition for resources.
- ▶ Costs of replanting.



Impacts of loss to STC

Reputational impacts.

- ▶ Potential for disruption to site users from path closures/road closures.
- ▶ Political and reputational risks as a result of negative press over ADB management and public outrage and/or anxiety.



Impacts of loss to STC

Environmental impacts.

- ▶ Losses to ecosystem services.
- ▶ Risks to protected species / sites through alteration of habitat structure.



Survey 2020.

- ▶ To survey all Countryside sites managed by the Countryside team.
- ▶ To survey all STC owned land.
- ▶ To count every ash tree on these sites.
- ▶ To quantify all ash into one of the four “Ash health categories”.

Health class 1, 100-75% remaining canopy (healthiest class),
 Health class 2, 74-50% remaining canopy,
 Health class 3, 49-25% remaining canopy,
 Health class 4, 24-0% remaining canopy (least healthy class).

- ▶ Identify possible targets from falling trees.
- ▶ Identify any trees requiring work or removal.

 **Shrewsbury Town Council Ash dieback survey. Complete count.**

| Site: | | Surveyor: | Date: | | | |
|--|-------|---------------------------|---|----------------------------------|----------------------------------|---------------------------------|
| Tree size category | Count | Presence of basal lesions | Ash health class count (use visual guide) | | | |
| | | | Class 1, 100-75% remaining canopy | Class 2, 75-50% remaining canopy | Class 3, 50-25% remaining canopy | Class 4, 25-0% remaining canopy |
| Small 4cm - 30cm dbh | | | | | | |
| Medium 30cm - 60cm dbh | | | | | | |
| Large 60cm - 120cm dbh | | | | | | |
| Dbh of 120cm and over | | | | | | |
| Total trees. | | | Total in health class. | | | |
| Total number of trees to be removed (marked) | | | | | | |
| Small | | | | | | |
| Medium | | | | | | |
| Large | | | | | | |

| | |
|-------------|---|
| Low risk. | Any tree in this category should have an independent risk assessment completed if it is in a high risk target zone. (see back). |
| medium risk | Any tree in this category should have a independent risk assessment completed if it is in a medium or high risk zone. |
| high risk. | Any tree in this category should have a independent risk assessment completed if it is in a low, medium or high risk zone. |

Hazard is something with the **potential** to cause **harm or damage**. **Risk** is the **likelihood** of someone or something being hurt or damaged multiplied by the **severity** of the occurrence.

Level of risk = likelihood x severity

| | | Likelihood/probability | | |
|------------------------------------|---|------------------------|----------|----------------|
| | | 1 | 2 | 3 |
| Increasing consequence or severity | 3 | 3 Low | 6 High | 9 Catastrophic |
| | 2 | 2 Low | 4 Medium | 6 High |
| | 1 | 1 Very Low | 2 Low | 3 Low |

Increasing likelihood or probability →

| | | Priority of action | |
|----------------|---|--------------------|--|
| 9 Catastrophic | Dangerous tree, report to line manager immediately and cordon off. Remedial works or removal a priority. | | |
| 6 High | Hazardous tree. Report to line manager and mark to remove or conduct remedial works within a reasonable time scale e.g 1-3 months depending on situation. | | |
| 4 Med um | Not immediately hazardous but measures should be taken to reduce the risk within a reasonable time scale e.g 3-6 months depending on situation. | | |
| 2-3 Low | Low risk - monitor and re-assess when necessary. | | |
| 1 Very low | No action necessary. | | |

| Score | Consequence/severity. | Description. |
|-------|---------------------------------|---|
| 3 | Severe injury or damage. | Risk of death or serious injury requiring hospitalisation. Structural or catastrophic damage to buildings or property. Will impact busy path or road. |
| 2 | Moderate injury or damage. | Injuries requiring first aid or emergency treatment. Significant damage to buildings or property. Will impact path or road. |
| 1 | Insignificant injury or damage. | Injuries probably not requiring first aid treatment. Damage to buildings or property slight or cosmetic. |

Ash health classes.



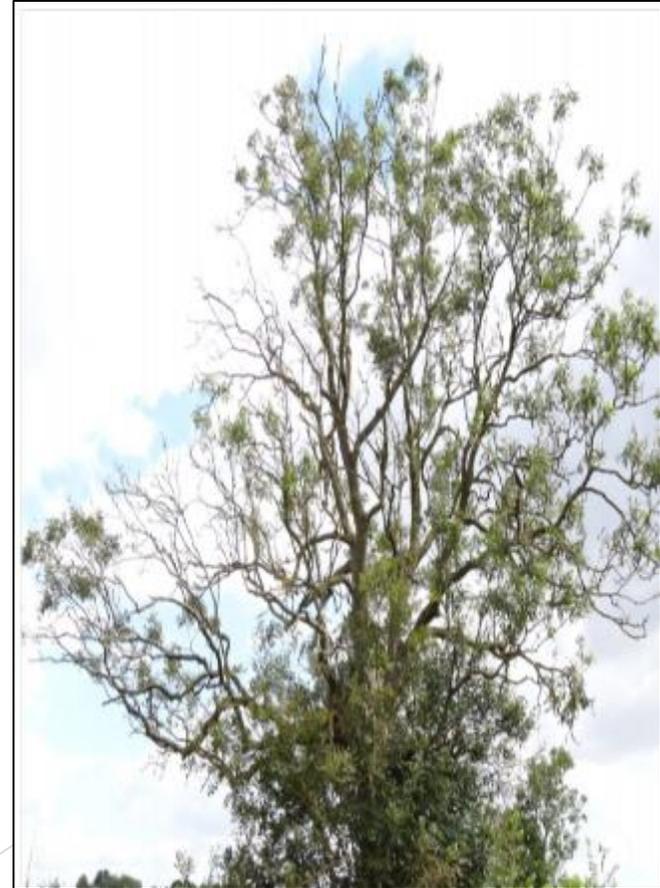
Ash health class 1.



Ash health class 2.



Ash health class 3.

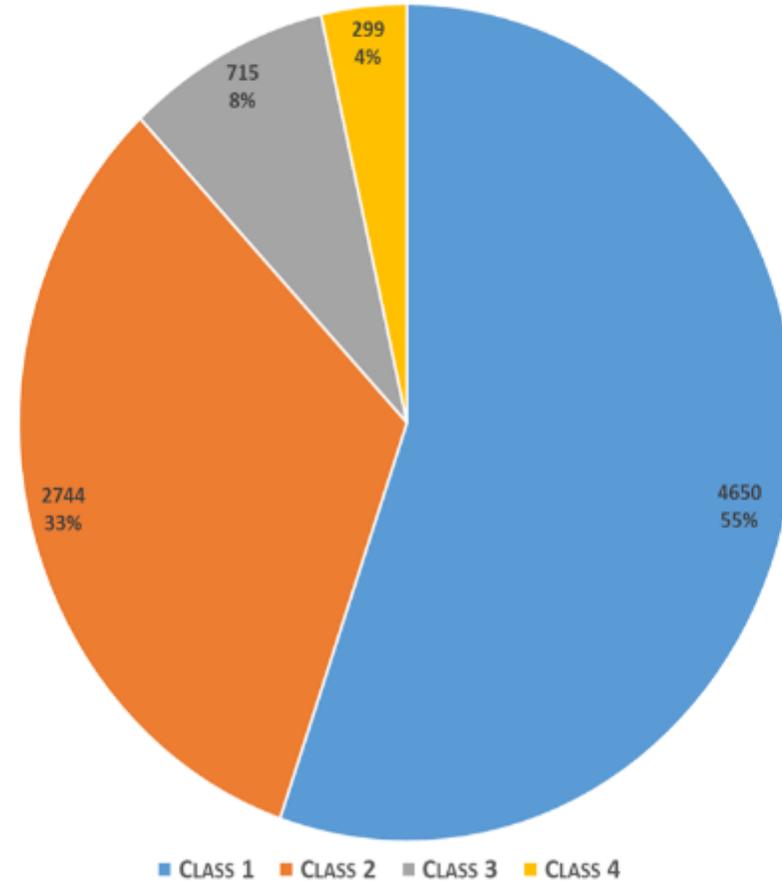


Ash health class 4.

Findings, Countryside sites.

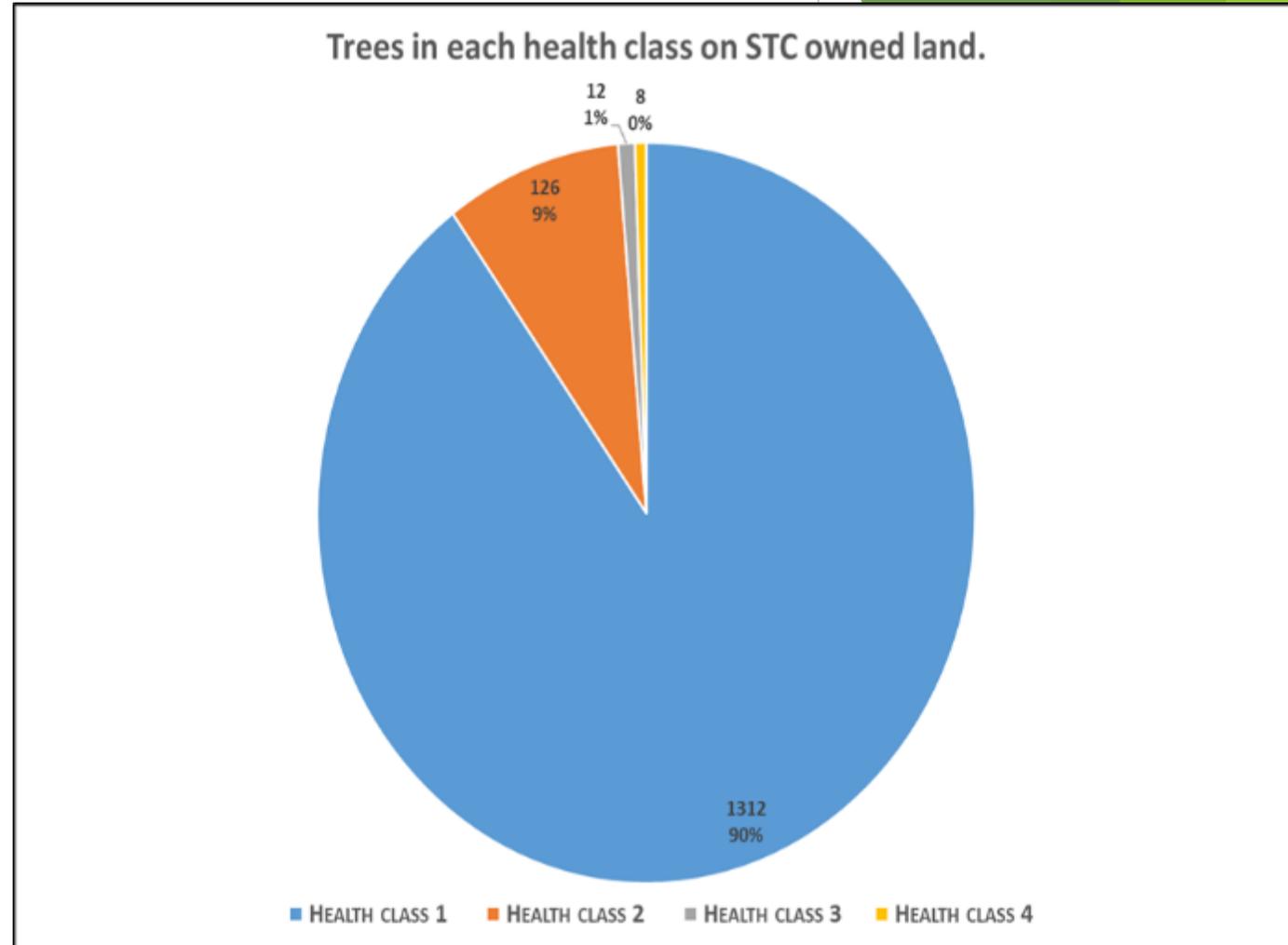
- ▶ Just under 8,500 ash trees counted on countryside sites.
- ▶ 45% showing advanced signs of dieback.
- ▶ Skewed slightly by the prevalence of small trees within the community woodlands.
- ▶ Stocked with Danish provenance.
- ▶ Larger trees more healthy with about 25% showing signs.

Breakdown of the number of trees in each health class.



Findings, STC owned land.

- ▶ 1458 ash trees on STC land.
- ▶ Higher proportion of “big” trees than on countryside sites.
- ▶ More open grown.
- ▶ Still, 143 (10%) of trees showing signs of advanced dieback representing a real challenge to safety.



Re-planting plan.

- ▶ Recommended re-planting rule of 1, 2, 3.
- ▶ 1 tree to replace a small tree, 2 to replace a medium and 3 to replace a large.
- ▶ Should be a minimum.
- ▶ Costs around £30-£50 to replace a tree with a suitable large sapling.
- ▶ We are replanting 30 this year at a cost of £1000-£1500.
- ▶ Tree, stake, tree tie, planting & after care (spraying, watering etc.)
- ▶ Suitable trees to replace ash, Aspen, alder, field maple, sycamore, birch, Rowan, along with native oaks.



Issues from 2020 survey.

- ▶ Lack of dedicated tree survey and inventory software.
- ▶ Having to use multiple platforms and paper to survey.
- ▶ Multiple platforms to produce work sheets for tree gang/countryside.
- ▶ Much easier to survey, plot location, send job to tree gang electronically.
- ▶ Will make monitoring trees over successive years much easier.



Issues from 2020 survey.

- ▶ When to remove a tree?
- ▶ Guidance warns that trees with over 25% dieback may be unsafe to climb.
- ▶ Work using MEWPS is likely to increase with added costs.
- ▶ We currently have the trained staff needed to cover demand.
- ▶ Unknown in future years.



Plans for 2021 and the future.

- ▶ Summer 2021 survey.
- ▶ Software and hardware appraisal and purchase.
- ▶ Upskilling of current Tree gang/Countryside operatives.
- ▶ Training of new chainsaw users and experience for inexperienced users in dealing with dangerous trees.



Thank you for listening...any questions?