

**Supporting\_Information Table\_S2. Assessment protocol for five traits scored in European trials of common ash.**

**Spring bud burst**

**Average score of the tree**

- |   |   |
|---|---|
| 0 | Winter stage, dormant buds  |
| 1 | Buds swollen, black and/or green bud scales enclose leaves completely |
| 2 | Buds are bursting, leaves (just) visible                              |
| 3 | Leaves very small, just escaped the bud                               |
| 4 | Leaves open and glossy, shoot starting to stretch                     |
| 5 | Leaves stretched markedly , still glossy                              |
| 6 | Leaves full size, still "spring fresh" not completely hardened        |
| 7 | Mature, all leaves are dim and hardened                               |

**Ash dieback crown damage**

**For trees more than 10 years old**

**Crown Dieback proportion for trees with a true crown**

- |   |  |
|---|--|
| 0 | No Symptoms  |
| a | < 10 % damage  |
| b | 10 – 25 %  |
| c | 25 – 50 %  |
| d | 50 – 75 %  |
| e | 75 – 99 %  |
| f | 99- 99,99 % - Crown dead, epicormic shoots on the trunk. |
| 4 | 100 % – Dead   |

**For trees up to 10 years old**

**Crown Dieback proportion for seedlings and young trees**

- |   |  |
|---|--|
| 0 | No Symptoms  |
| 1 | < 10 % damage, marginal damage on stem and crown.                                  |
| 2 | < 50 % damage. Presence of dead parts in the crown and discolored necrotic parts   |
| 3 | > 50 % damage. Prominent to highly dominant presence of damage on shoots, branches |
| 4 | Dead   |

**Autumn yellowing (average performance of the tree)**

- |   |                                       |
|---|---------------------------------------|
| 0 | Dark green                            |
| 1 | Dark green with yellowing leaf nerves |
| 2 | Green with yellow spots on leaflets   |
| 3 | Yellowing leaflets                    |
| 4 | Completely yellow leaves              |





### Autumn leaf loss

Percentage of the foliage that has been shed

0	No leaf shed detected	
1	0-10 %	<10 %
2	11-20 %	<20 %
3	21-30%	<30%
4	31-40%	<40%
5	41-50%	<50%
6	51-60%	<60%
7	61-70%	<70%
8	71-80%	<80%
9	81-90%	<90%
10	91-99 %	<99 %
(11	No leaves left)	

### Autumn status (how far into the dormancy stage is the tree on a scale from 0-10)

Reflects the overall autumn senescence stage of the tree based on the remaining leaves in the crown

Symptoms of senescence of foliage are: summer green colour becomes lighter, yellowing, brownish, withering (typically from the rim towards the middle)

Thus, the score is gradual and shows average tree senescence level (full dormancy = 100%)

Average performance meaning that a tree showing prominent symptoms in a small part of the crown may score the same as a tree showing milder symptoms

- 0 All remaining leaves still summer green
- 1 Remaining crown shows 1-10% dormancy
- 2 Remaining crown shows 11-20% dormancy
- 3 Remaining crown shows 21-30% dormancy
- 4 Remaining crown shows 31-40% dormancy

- 5 Remaining crown shows 41-50% dormancy
- 6 Remaining crown shows 51-60% dormancy
- 7 Remaining crown shows 61-70% dormancy
- 8 Remaining crown shows 71-80% dormancy
- 9 Remaining crown shows 81-90% dormancy
- 10 Remaining crown shows 91-99% dormancy (highly pronounced senescence symptoms - almost dormant)
- (11 Complete senescence -All remaining leaves dead - 100% dormancy)



