

Some features of ‘ Brown bud’ or Hybrid ash in Ireland

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Background:

Brown bud ash often presents as crooked trees. They were usually imported in the period 1990-2000 from Europe. They are the result of the natural hybridisation of Common Ash , *F. excelsior* with Narrow-leaved-Ash, *F. angustifolia*.

Some features associated with Brown bud Hybrid ash:

Winter

- Colour of buds for shoots growing in the light (colour of buds in dominated trees or in those shoots under the shade of other trees are not good indicators): buds completely black and generally big for Common Ash, brown or brown dark and rather smaller for Narrow leaved Ash.
- Layout of the buds on the shoot: always one bud opposite the other on the stem for Common Ash and . For narrow leaved Ash the buds may be arranged opposite each other (by two) or in a group of three buds (by three) on the same plane of the stem (Fig. 1). The ‘By two’ layout is generally observed for long vigorous shoots and by three layout is generally for short shoots (less than 10 cm long). Both types of arrangement may be seen even on the same tree. The terminal bud with the ‘by three’ arrangement has trilateral symmetry of the bud scales as can be seen in Fig. 2 below. Common ash has bilateral symmetry.
- Flowering time in hybrid individuals usually starts earlier, (Dec-Jan); common ash tends to flower in mid February to March and even April depending on the year.



Fig. 1 Hybrid / *F. angustifolia*
Note three buds on the same plane,

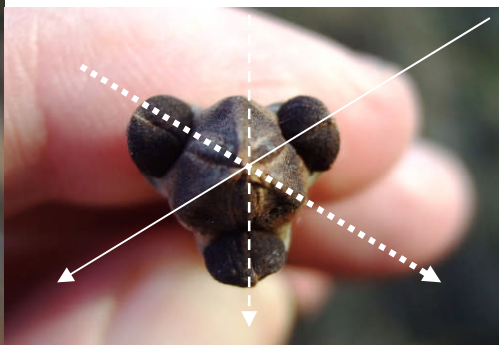


Fig. 2 Hybrid / *F. angustifolia*
terminal bud



Fig. 2 Brown bud' ash (left) above has more rounded buds than common ash *F. excelsior* (right)

Some features associated with Brown bud Hybrid ash Fig 3:

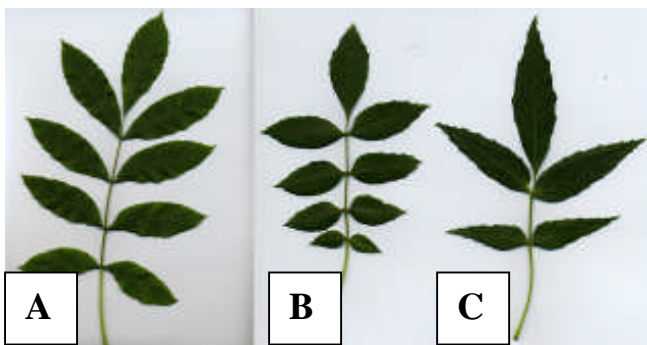


Summer

Hybrid ash (Left) has narrow leaflets of about 2 cm wide with a spear-tip shape, usually bearing conspicuous marginal teeth of between 7 to 15



Common ash leaflet (Left) bears many (at least 20) very small teeth and frequently up to 30



In hybrid ash (B), the leaflet numbers on sun exposed branches can be as low as 5, but more typically 7, although some branches can exhibit more leaflets.

Common ash (B) exhibits frequently 9 to 13 leaflets (left) Note fewer leaflets and teeth on *F. angustifolia* (C) compared to common ash *F. excelsior* (A)

Important note: bad tree form by itself is not a diagnostic character of a hybrid individual as common ash is a demanding species that shows growth problems when planted on superficial, poorly drained soils subject to strong winds, and without adequate trunk pruning in early stages. It is desirable to check the provenance certificate for plantations that are suspected to be hybrids.