

# *Abies alba*

## European silver fir, silver fir



*Abies alba* (European silver fir) is a large, evergreen conifer with an impressive pyramidal crown shape that flattens out in maturity. The European silver fir is, of course, most commonly known as a Christmas tree. As a large tree it can reach a height of between 50 and 60 metres and when conditions are favourable may be very long-lived. The European silver fir is found in the Alps, the Pyrenees, the Carpathian Mountains and the Balkans. It grows at different elevations alongside, amongst others, *Fagus sylvatica*, *Picea abies* and *Larix decidua*. *Abies alba* is a dominant species in many forests with a cool, damp climate, hence why it prefers growing in the higher mountain areas in Europe. Philip Miller, head gardener of the Chelsea Physic Garden in London, described the tree in 1759.

The bark of juvenile trees of *Abies alba* is greyish brown and smooth. In older trees, this becomes grey and grooved. The wood is white as denoted by the name *alba*. The needles of the evergreen European silver fir are matt green on top and have two green-white bands on the underside and are slightly notched. Young shoots are light yellow-brown or downy grey. The seed cones are narrow cylindrical, yellow-green and later purple-red. The cones turn brown and break apart when ripe from late summer into autumn. The winged seeds are distributed by the wind or eaten by birds and small mammals. Usually a standard tree but European silver firs can develop magnificent, multi-stem characters from a low-branched point.

The European silver fir is ideal in larger gardens and parks to provide some privacy or to add an evergreen aspect. *Abies alba* also makes a suitable tree for creating shelter/cover but is not planted close to buildings or homes on account of its large size. Indeed, in older trees, branches may break off in strong winds. The European silver fir grows best on well-drained soil in a cool climate with regular rainfall. Drier sites are tolerated but slow down growth and make the tree more susceptible to diseases and pests.

### TYPES OF PLANTING

**Tree types:** standard trees, feathered trees, conifers

### USE

**Location:** park, large garden, cemetery, countryside, windbreak | **Pavement:** none | **Planting concepts:** Landscape planting, shade-tolerant

### CHARACTERISTICS

**Crown shape:** pyramidal | **Crown structure:** dense | **Height:** 30 - 60 m | **Width:** 15 - 20 m | **Winter hardiness zone:** 4B - 7B

### ASPECTS

**Wind:** tolerant to wind | **Soil:** loess, sabulous clay, light clay, sand, loamy soil | **Nutrient level:** low in nutrients, moderately rich in nutrients, rich in nutrients | **Soil moisture level:** moist | **Light requirements:** sun, partial shade, shade | **pH range:** acidic, neutral, alkaline | **Host plant/forage plant:** birds, owls, small mammals

### PLANTKENMERKEN

**Flowers:** discrete, big | **Flower colour:** brown, red-violet, yellow-green | **Flowering period:** June - June | **Leaf colour:** dark green, underside white-grey | **Leaves:** evergreen, needles or scales, scented, curly | **Fruits:** discrete, large, cones | **Fruit colour:** yellow-green, red-violet | **Bark colour:** grey-brown | **Bark:** peeling, smooth, later on rough | **Twig colour:** yellow-green, grey-green | **Twigs:** pendulous | **Root system:** deep, tap root, central root

