

# *Picea abies*

## Norway spruce



*Picea abies* (Norway spruce) is a large, evergreen conifer and the most used tree in European production of softwood. The native range of Norway spruce extends across Northern Europe, the Alps, the Carpathian Mountains and the Balkans. It is a dominant tree at cooler elevations where it forms dense forests. *Picea abies* can also occur however in mixed forests with *Fagus sylvatica*, *Larix decidua*, *Juniperus communis* and *Sorbus aucuparia*. As a large tree it can reach a height of approximately 30-55 metres, forming a beautiful pyramidal crown. It usually has a single stem and horizontal dangling branches and upright tips.

The evergreen, pointed needles are glossy dark green and arranged in pairs of two. The cones of *Picea abies* are the longest amongst the *Picea* species, with pointed scales. The winged seeds are small and distributed by the wind. They are also beloved by squirrels and birds. The male flowers are yellow and the female flowers are pink-red. The thin grey-brown bark of Norway spruce flakes in small platelets and in older trees takes on a violet sheen.

*Picea abies* is a long-lived, fast-growing tree that is suitable for larger gardens and parks where space is available. Norway spruce prefers cool locations and well-drained acid soils and can withstand very cold winters. In long periods of drought, Norway spruce cannot create sufficient resin, allowing the spruce bark beetle to penetrate, and this has led to a great decline in its European range of distribution. As a semi-pioneer or climax tree, it grows with *Betula pendula* as a 'nurse tree' and requires full sun or partial shade. Norway spruce is widely used and planted as a Christmas tree. Young shoots contain a lot of vitamin C and are used to make syrups or tea in traditional medicine.

### SEASONAL COLOURS



### TYPES OF PLANTING

**Tree types:** standard trees, feathered trees, conifers, woodland planting stock

### USE

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

### CHARACTERISTICS

**Crown shape:** narrow pyramidal | **Crown structure:** dense | **Height:** 30 - 55 m | **Width:** 8 - 10 m | **Winter hardiness zone:** 3B - 8B

### ASPECTS

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

### PLANTKENMERKEN

**Flowers:** discrete | **Flower colour:** yellow, pink-red | **Flowering period:** April - May | **Leaf colour:** dark green | **Leaves:** evergreen, short needles, polished, leaf scented | **Fruits:** striking, large, cones | **Fruit colour:** brown | **Bark colour:** grey-brown, violet-grey | **Bark:** peeling, smooth | **Twig colour:** red-brown | **Twigs:** horizontal branches, pendulous | **Root system:** shallow, compact

