

European broadleaved species

Alder Italian category C

Native range

Native to southern Italy and Corsica.

Provenance choice

Only a few trial plantations have been established in Britain and no provenance studies have been undertaken; seed from good stands in the natural range should be preferred.

Site requirements

It is a light demanding species, grows to the largest size of any alder that has been planted in Britain and appears to be tolerant of quite dry sites and alkaline soils. It is not suited to peats or soils of very poor nutrient status. Although isolated plots in western Britain have shown good growth, it is probably best suited to warmer lowland areas. It is cold hardy to about -25°C, withstands frost, and is moderately tolerant of exposure. Best growth is on slightly dry to moist soils of poor or medium moisture status. It has been used as a nitrogen fixing nurse species for more valuable broadleaves such as oak and walnuts.

Pests and pathogens

Some susceptibility to *Phytophthora alni* root and collar rot, but less than black alder.

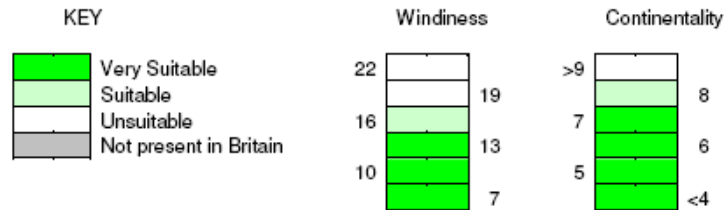
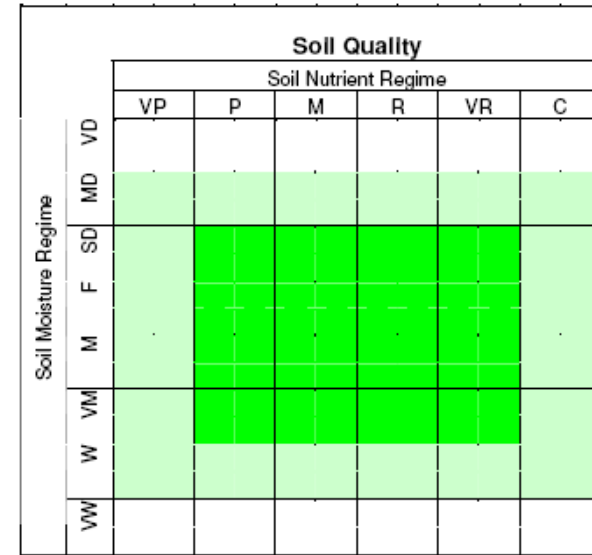
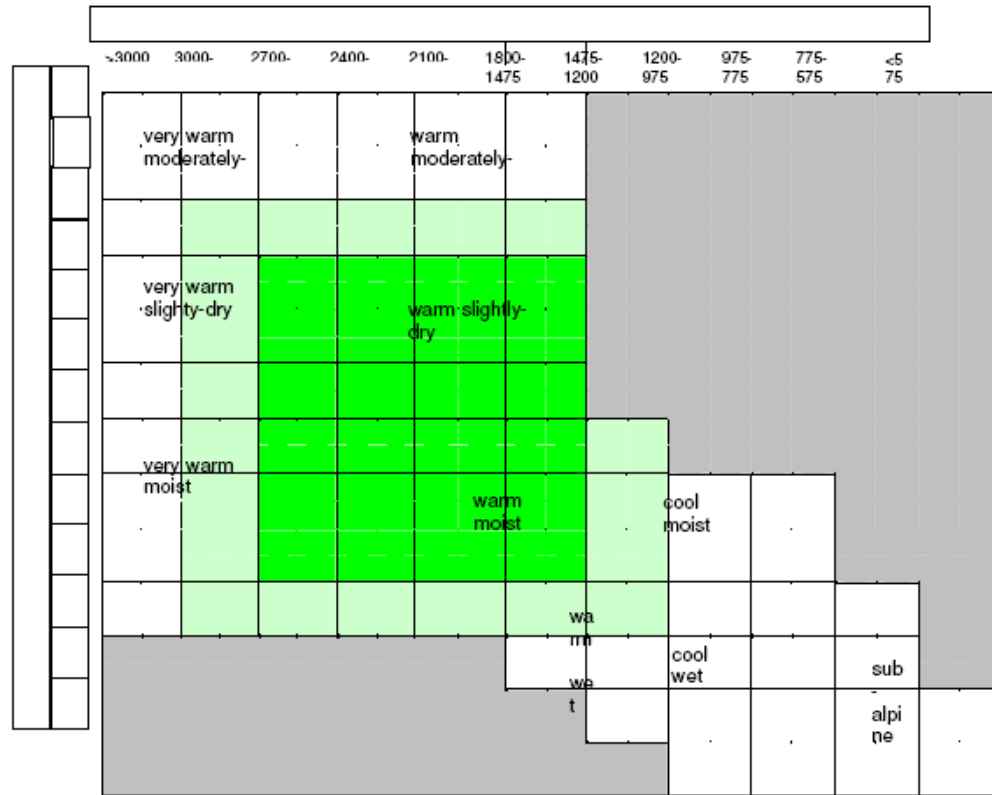
Use

This is a species which may benefit from climate warming since its tolerance of drier soils and alkaline conditions could be valuable in areas of eastern Britain where drought risk may increase.

109	Kielder
204	North East Lowland
301	Lake district
302	North West
305	Peninsular
401	Yorkshire Moors
402	East Midlands
403	West Midlands
404	West England
405	South East
406	East Anglia

No UK or French forest quality

Italian alder - *Alnus cordata*



Walnut common category C

Native range

Native to southern Europe but widely planted further north for nuts and timber including in southern Britain.

Provenance choice

Limited provenance trials have been undertaken suggesting that preferred material should be late flushing varieties identified in French breeding programmes. Unless interested in growing walnuts for the nuts, avoid using material sourced from open grown trees which often have poor form.

Site requirements

This is a light demanding species adapted to warm climates and fertile soils and which is very vulnerable to spring and autumn frosts. It produces a very high value timber on suitable sites. It is not tolerant of exposure. It should be planted on rich to very rich soils of fresh to moist moisture status, including alkaline soils of adequate rooting depth. It is not suited to very dry or nutritionally very poor soils, and very moist to very wet soils should be avoided. It can helpfully be grown in mixture with nitrogen fixing trees or shrubs.

Pests and pathogens

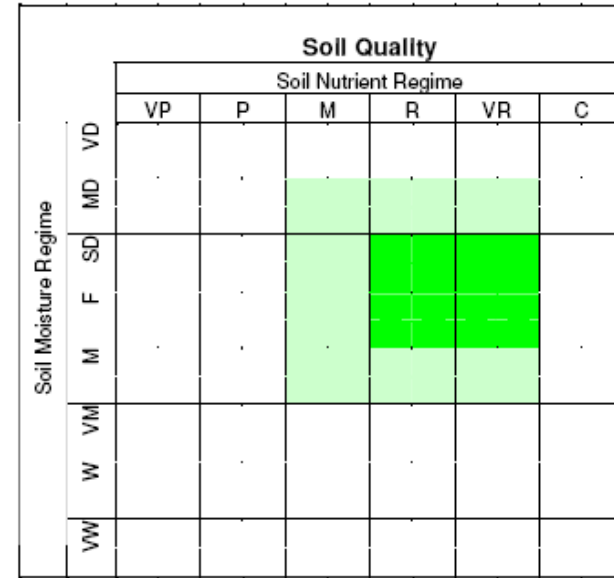
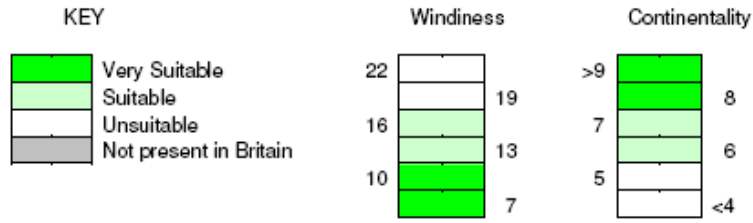
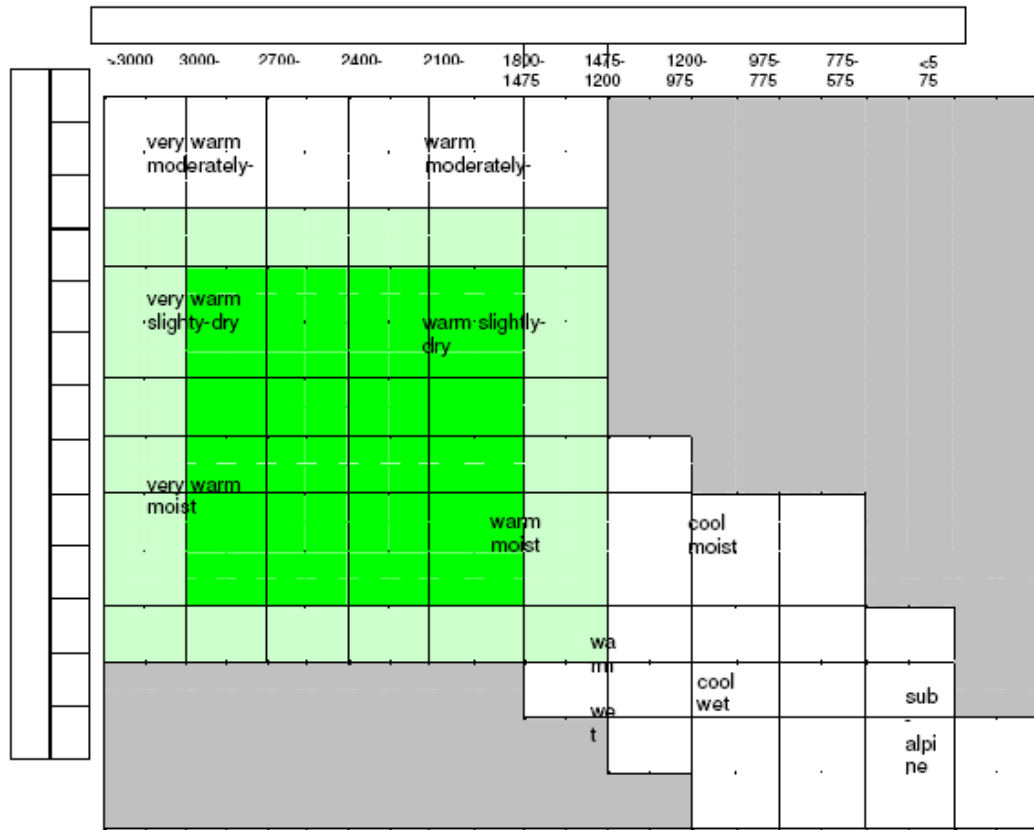
Considered particularly susceptible to *Armillaria* root rot (honey fungus).

Use

While it is likely to remain confined to lowland parts of Britain, climate warming should increase the range of suitable sites for this species in northern England, Wales, and parts of Scotland.

109	Kielder North East	
204	Lowland	
301	Lake district	
302	North West	
305	Peninsular	JRE 900 FRANCE
401	Yorkshire Moors	
402	East Midlands	JRE 900 FRANCE
403	West Midlands	JRE 900 FRANCE
404	West England	JRE 900 FRANCE
405	South East	JRE 900 FRANCE
406	East Anglia	JRE 900 FRANCE
	No English	JRE 900 FRANCE

Common walnut - *Juglans regia*



Maple Norway category C

Native range

Widespread in Europe from Scandinavia to northern Spain and east to the Ural Mountains.

Provenance choice

Material from good quality British stands or selected stands in western Europe should be preferred.

Site requirements

Cold hardy throughout Britain but is less tolerant of exposure than sycamore. Grows on a wide range of soils but does best on deep, fresh to moist free-draining soils of medium to rich nutrient status. However, it appears to be more tolerant of drier sites than sycamore and to be able to grow on alkaline soils. It is not suited to soils of very poor nutrient status or waterlogged conditions such as peats. This is a species which grows fast for the first 30-40 years and can be difficult to manage in mixture.

Pests and pathogens

Like sycamore, Norway maple is affected by various leaf spot and blotch diseases. It is reported to be especially vulnerable to Verticillium wilt, but also affected by root diseases caused by Phytophthora and Armillaria (honey fungus).

It is vulnerable to bark stripping by grey squirrels and horse chestnut leaf miner (*Cameraria ohridella*) has also been reported to occasionally damage Norway maple.

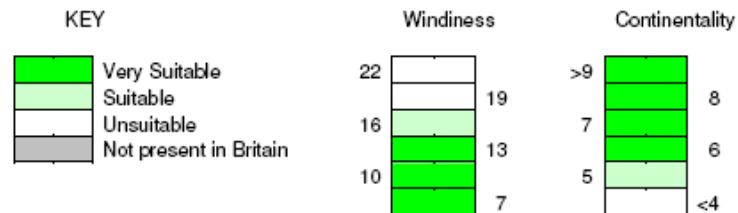
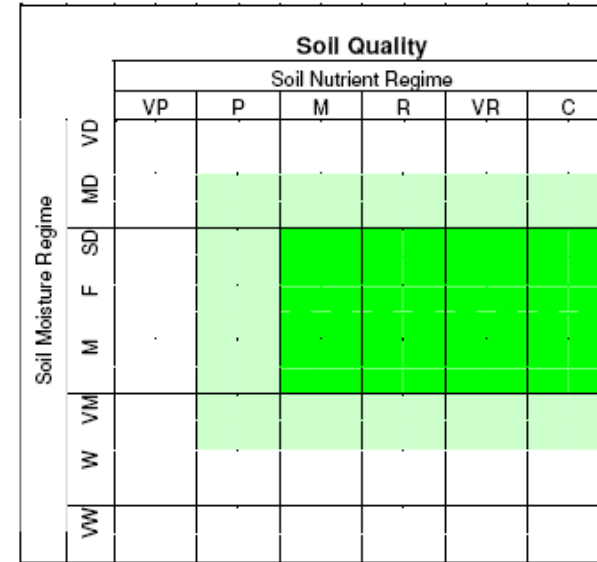
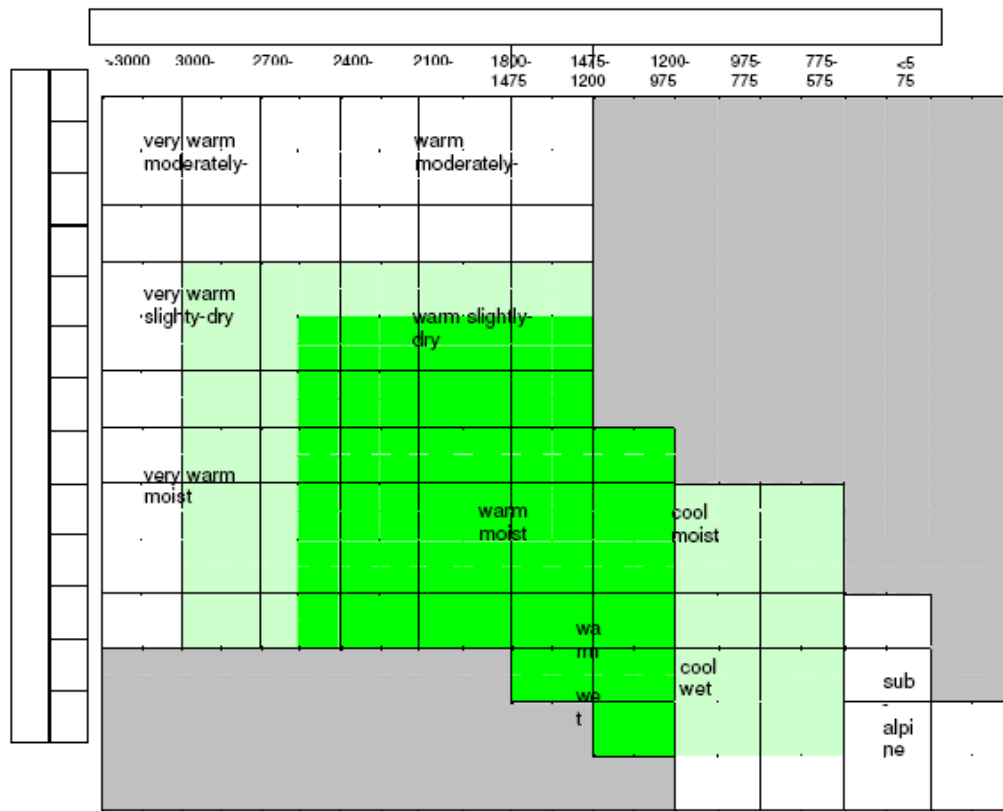
Use

Its greater tolerance of drier soils may mean that this species will be used in preference to sycamore in parts of eastern lowland Britain.



109	Kielder	
	North East	
204	Lowland	
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404	West England	APL901 NORD
405	South East	APL901 NORD
406	East Anglia	APL901 NORD
	No UK registered	APL901 NORD

Norway maple - *Acer platanoides*



London plane category C

Native range

A naturally occurring hybrid between western and eastern planes which has been widely planted in cities in southern Britain.

Provenance choice

A number of cultivars are identified, but there is no knowledge about their relative merits in British forestry.

Site requirements

A light demanding species which reaches large sizes, is tolerant of pollution and which can be very long lived. It is cold hardy to -29°C but is sensitive to exposure, particularly cold drying winds. Best growth is found on soils of medium to rich nutrient status and fresh to wet soil moisture; however, it will grow on drier soils and is drought tolerant. It is not suited to very wet or alkaline soils. If used in forest plantations it needs early and regular thinning to provide adequate space for crown development.

Pests and pathogens

Commonly affected by anthracnose which mainly causes shoot and leaf killing but can be severe. However, there is increasing awareness of two fungal pathogens that are significant in Europe could potentially be very damaging to *Platanus* in the UK. One is canker stain (*Ceratocystis plantani*) which now occurs in several European countries and has caused serious mortality of *Platanus*. The other is Massaria disease (*Splanchnonema platani*) which attacks the bark and cambium on the branches of London Plane causing sudden branch breakage.

Use

The species is likely to benefit from climate warming and it may prove a useful forest tree on warmer sites in eastern lowland Britain.



109

Kielder

North East

204

Lowland

301

Lake district

302

North West

305

Peninsular

401

Yorkshire Moors

402

East Midlands

403

West Midlands

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West England

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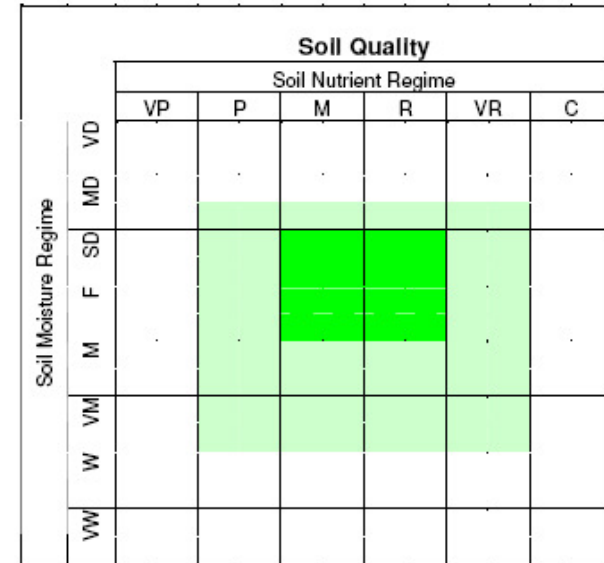
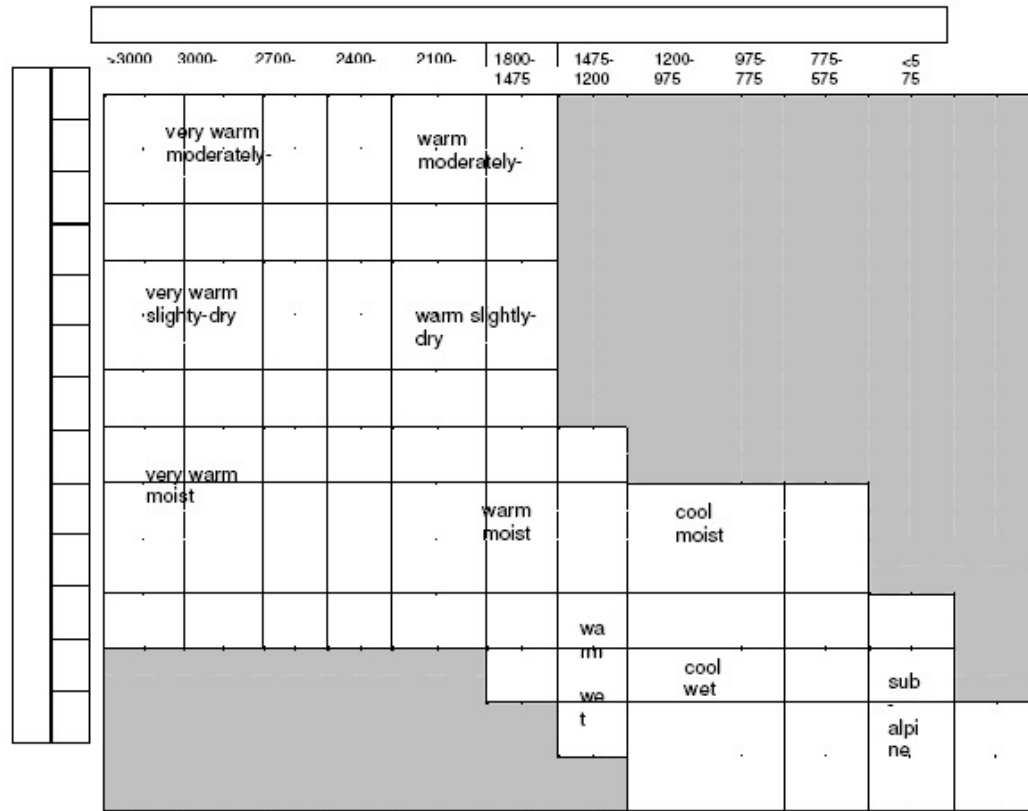
South East

406

East Anglia

No UK or French forest quality

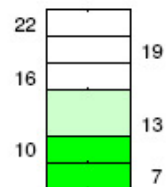
London plane - *Platanus x hispanica*



KEY



Windiness



Continentality

