

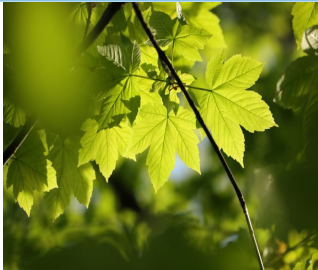


Farm Woodlands Information Sheet



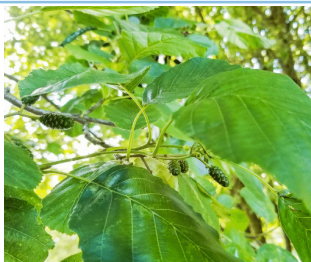
Quick Guide to Short Rotation Forestry Species

| Common name <i>Scientific name</i> | | Climate | Soils | Exposure tolerance | General yield class* | Normal rotation length | Timber properties ; calorific values |
|--|---|---|---|-----------------------|-------------------------|------------------------------|---|
| Sitka Spruce <i>Picea sitchensis</i> |  | Tolerates a wide range of conditions but grows best and fastest on the west coast. Will be restricted to the west side of Scotland in future due to reduced rain in the east. | Can grow on most soils and does best on deep freely draining soils. Slightly dry to wet, poor to very rich fertility. | High | 10 - 32+ | 35 - 45 years | Highly favoured by commercial sawmills. Can produce construction grade timber but there is a wide market for lower strength wood and pulp. 7.3GJ/m ³ |
| Most widely planted tree in the UK due to its quick growth and wide range of suitable site conditions. Due to the quick growth, least palatable to browsing and timber improvements it has been included in this list. | | | | | | | |
| Sitka Spruce Hybrid <i>Picea x lutzii</i> |  | Similar conditions to Sitka Spruce but can tolerate less rainfall. | As per parent Sitka Spruce can grow well on a wide variety of soils. | Medium/ High | 6 - 24+ | 50 - 55 years | Similar to Sitka and so would be accepted in similar markets. Approximately 7.3GJ/m ³ |
| A naturalised hybrid between Sitka and White Spruce growth rates are quicker than the mostly alternative species Norway Spruce particularly in the East where conditions for Sitka are becoming less favourable. | | | | | | | |
| Sycamore <i>Acer</i> <i>Pseudoplatanus</i> |  | Tolerates a wide range of conditions, tolerates late spring frosts and exposure to wind and salt spray. | Prefers deep, moderately fertile, alkaline, moist or damp conditions. | High | 4 - 12 | 40 - 50 years | High value if managed for timber. Coppices well. Tolerates salt winds. Grey squirrel control required to avoid significant damage to timber quality. 10.1GJ/m ³ |

Not considered native, but as Ash dies out or becomes uncommon will be the likely candidate to replace it, good nectar source for bees.

Farm Woodlands Information Sheet


Quick Guide to Short Rotation Forestry Species

| Common name <i>Scientific name</i> | | Climate | Soils | Exposure tolerance | General yield class* | Normal rotation length | Timber properties ; calorific values |
|---|---|--|--|-----------------------|-------------------------|------------------------------|--|
| Silver Birch <i>Betula pendula</i> |  | Very hardy, tolerates a range of climates as well as a drier climate to Downey birch. | Lighter and mineral soils. | High | 4 - 12 | 35 - 45 years | High grade value when it reaches suitable diameter and coppices well. 12.1GJ/m ³ |
| Fast growing at an early stage like other broadleaves species requires protection from herbivores. | | | | | | | |
| Downey Birch <i>Betula pubescens</i> |  | No major climate limitations, like Silver Birch. Can thrive at higher elevations than most other broadleaves | Heavy soils, where waterlogging can occur and peats. | High | 4 - 12 | 50 - 55 years | Poorer quality than silver birch, likely uses are for firewood and biomass.. 12.1GJ/m ³ |
| Preferred species of Birch when planting in wetter areas. Main species in many native woodland types. | | | | | | | |
| Common Alder <i>Alnus glutinosa</i> |  | No serious limitations in the UK, don't grow well at higher elevations. | All soil types but requires moisture. | High | 4 - 14 | 40 - 50 years | Historically used for gunpowder, timber has a value of wood turning. Now used mainly in native woodlands. Potential for coppicing. 9.2GJ/m ³ |


A quick growing tree that is one of the least palatable broadleaves, if the ground conditions are not right will start to die at approximately year 10.

Farm Woodlands Information Sheet


Quick Guide to Short Rotation Forestry Species

| Common name | | | | Exposure tolerance | General yield class* | Normal rotation length | Timber properties ; calorific values |
|--|---|---|--|--------------------|----------------------|------------------------|--------------------------------------|
| Scientific name | | Climate | Soils | | | | |
| Italian Alder <i>Alnus cordata</i> |  | Grows well on lower elevation sites with little exposure. | Tolerates dry and calcareous soils, does not require to be near water. | Medium. | 4 - 13 | 35 - 45 years. | Firewood, biomass. |

Common use is on reclaimed land such as ex-open cast timber growth. Native to Italy and Corsica..

| | | | | | | | |
|---|---|---|--|------|--------|---------------|--------------------|
| Green Alder <i>Alnus Incana</i> |  | Tolerates a wide variety of climate conditions. | Similar to Common Alder but will tolerate some dry sites like Italian Alder. | High | 4 - 13 | 40 - 50 years | Firewood, biomass. |
|---|---|---|--|------|--------|---------------|--------------------|

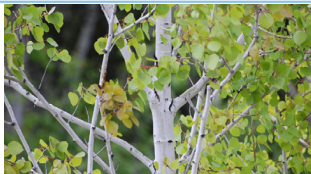
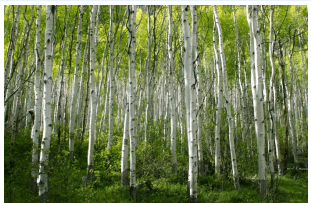

Similar to Italian Alder, common use is on reclaimed land. It can be found over most of central Europe, from France to Siberia.

| | | | | | | | |
|--|---|--|--|--------|--------|---------------|-------------------|
| Red Alder <i>Alnus rubra</i> |  | Tolerates a wide variety of climate conditions but not dry sites. Once leaves open very susceptible to late frosts | All soil types but does not do well on dry or sandy sites. | Medium | 4 - 13 | 40 - 50 years | Firewood, biomass |
|--|---|--|--|--------|--------|---------------|-------------------|

A native of British Columbia and can be found growing with Sitka Spruce.

Farm Woodlands Information Sheet


Quick Guide to Short Rotation Forestry Species

| Common name | | | | Exposure tolerance | General yield class* | Normal rotation length | Timber properties ; calorific values |
|--|---|--|---|--------------------|----------------------|------------------------|--|
| Scientific name | | Climate | Soils | | | | |
| Aspen <i>Populus tremula</i> |  | Tolerates a wide range of conditions, similar to Sycamore. | Grows on a wide range of soils but peaty soils best avoided | High. | 6 | 40 - 50 years. | Main use of Aspen is for biomass. 8.6GJ/m ³ |
| Native species, a possible replacement to Ash, naturally suckers. | | | | | | | |
| Hybrid Aspen <i>Populus tremula x tremuloides</i> |  | Optimum is nutrient rich, well aerated, moderately drained soils with high water holding capacity. | Prefers mainly ex-agricultural fields for best growth rates. | High. | 8 | 50 - 55 years | Biomass or firewood. 8.6GJ/m ³ |
| A quick growing Aspen hybrid crossed with trembling Aspen, extensive trials where carried out in Northern Europe were today only Sweden grow it in reasonable numbers. | | | | | | | |
| Urn Gum <i>Eucalyptus urnigera</i> |  | Lowland sites only. | Along with E. glaucescens it is one of the most cold tolerant Eucalyptus. Requires well drained sites. Copes with wind, snow and frost. | Low | 24 | Biomass | Timber poor and so only suitable for biomass/ firewood. 12.5GJ/m ³ |

Species has established successfully for biomass in Scotland. Mature trees can be found along the west coast of Scotland. Like all Eucalyptus foliage is unpalatable to deer however deer fraying can be a problem

Farm Woodlands Information Sheet

Quick Guide to Short Rotation Forestry Species

| Common name | | | | Exposure | General | Normal | Timber properties; |
|--|---|---|------------------------------|-----------|--------------|------------------|---|
| <i>Scientific name</i> | | Climate | Soils | tolerance | yield class* | rotation length | calorific values |
| Tingiringi Gum <i>Eucalyptus glaucescens</i> |  | Lowland sites preferred, can be planted at higher elevations than other Gums. | Requires well drained sites. | Medium | 26 | Biomass 15 years | Timber poor and so only suitable for biomass/firewood. 12.5GJ/m ³ . |

Species has established successfully for biomass in Scotland. E. glaucescens is the optimum species for west central Scotland

*General yield class is a measure of productivity. It is the average annual gain in timber volume per hectare per year over the rotation. For example, a yield class of 16 indicates an average annual timber volume gain of 16m³ /ha/yr. Yield class varies between species (some grow faster than others) and site conditions. A tree species planted on an unsuitable site will have a lower yield class than the same species growing in more suitable conditions. Yield class ranges are based on trees grown in pure, single-species stands and are indicative only.