**Appendix 1.** A list of reported important non-native tree species growing in forests and in provenance trials in Europe.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Latin name** | **Author** | **Family** | **English name(s)** | **Origin** | **Number of countries reporting only natural regeneration** | **Number of countries reporting spread outside planting sites** |
|  | *Abies amabilis* | (Douglas ex Loudon) J.Forbes | Pinaceae | Pacific silver fir, red silver fir | WNAM | 0 | 0 |
|  | *Abies balsamea* | (L.) Mill. | Pinaceae | balsam fir | NNAM | 0 | 0 |
|  | *Abies cilicica* | (Antoine & Kotschy) Carrière | Pinaceae | Cilician fir, Taurus fir | WAS | 0 | 0 |
|  | *Abies concolor* | (Gordon) Lindl. ex Hildebr. | Pinaceae | white fir, Colorado fir | WNAM | 0 | 0 |
|  | *Abies grandis* | (Douglas ex D.Don) Lindl. | Pinaceae | grand fir, great silver fir | WNAM | 1 | 0 |
|  | *Abies lasiocarpa* | (Hook.) Nutt. | Pinaceae | Rocky Mountain fir | WNAM | 0 | 0 |
|  | *Abies numidica* | de Lannoy ex Carrière | Pinaceae | Algerian fir | NAF | 0 | 0 |
|  | *Abies procera* | Rehder | Pinaceae | Noble fir | WNAM | 0 | 0 |
|  | *Acacia dealbata* | Link | Fabaceae | silver wattle, blue wattle, mimosa | AUS | 1 | 1 |
|  | *Acacia farnesiana* | (L.) Willd. | Fabaceae | sweet acacia, huisache | AUS | 0 | 0 |
|  | *Acacia karroo* | Hayne | Fabaceae | sweet thorn | SAF | 1 | 0 |
|  | *Acacia longifolia* | (Andrews) Willd. | Fabaceae | long-leaved wattle | AUS | 1 | 0 |
|  | *Acacia melanoxylon* | R.Br. | Fabaceae | Australian blackwood | AUS | 0 | 1 |
|  | *Acacia pycnantha* | Benth. | Fabaceae | golden wattle | AUS | 0 | 0 |
|  | *Acacia retinodes* | Schltdl. | Fabaceae | retinodes water wattle | AUS | 1 | 0 |
|  | *Acacia saligna* | (Labill.) H.L.Wendl. | Fabaceae | coojong, golden wreath wattle | AUS | 2 | 1 |
|  | *Acer ginnala* | Maxim. | Sapindaceae | Amur maple | EAS | 0 | 0 |
|  | *Acer negundo* | L. | Sapindaceae | box elder, ash-leaved maple | ENAM | 2 | 8 |
|  | *Acer palmatum* | Thunb. | Sapindaceae | Japanese maple | EAS | 0 | 0 |
|  | *Acer saccharinum* | L. | Sapindaceae | silver maple, creek maple | ENAM | 1 | 0 |
|  | *Acer saccharum* | Marshall | Sapindaceae | sugar maple, rock maple | ENAM | 0 | 0 |
|  | *Ailanthus altissima* | (Mill.) Swingle | Simaroubaceae | tree of heaven | SEAS | 2 | 10 |
|  | *Albizia julibrissin* | Durazz. | Fabaceae | Persian silk tree | CAS | 0 | 0 |
|  | *Alnus* sp*.* | Mill. | Betulaceae | alder | # | 0 | 0 |
|  | *Aralia spinosa* | L. | Araliaceae | devil's walkingstick | ENAM | 0 | 0 |
|  | *Araucaria araucana* | (Molina) K.Koch | [Araucariaceae](https://en.wikipedia.org/wiki/Araucariaceae) | monkey puzzle, Chilean pine | SAM | 0 | 0 |
|  | *Betula grossa* | Siebold & Zucc. | Betulaceae | Japanese cherry birch | EAS | 0 | 0 |
|  | *Betula maximowicziana* | Regel | Betulaceae | Monarch birch, Japanese red birch | EAS | 0 | 0 |
|  | *Broussonetia papyrifera* | (L.) Vent. | Moraceae | paper mulberry | SEAS | 2 | 1 |
|  | *Calocedrus decurrens* | (Torr.) Florin | Cupressaceae | incense cedar | WNAM | 0 | 0 |
|  | *Carya alba* | (L.) Nutt. | Juglandaceae | mockernut hickory, white hickory | ENAM | 0 | 0 |
|  | *Carya cordiformis* | (Wangenh.) K.Koch | Juglandaceae | bitternut Hickory | ENAM | 0 | 0 |
|  | *Carya ovata* | (Mill.) K.Koch | Juglandaceae | shagbark hickory | ENAM | 0 | 0 |
|  | *Castanea crenata* | Siebold & Zucc. | Fagaceae | [Japanese chestnut](https://en.wikipedia.org/wiki/Castanea_crenata#cite_note-BSBI07-1) | EAS | 0 | 0 |
|  | *Casuarina cunninghamiana* | Miq. | Casuarinaceae | she-oak | AUS | 1 | 0 |
|  | *Catalpa bignonioides* | Walter | Bignoniaceae | southern catalpa, cigar tree | ENAM | 0 | 0 |
|  | *Catalpa ovata* | G.Don | Bignoniaceae | Chinese catalpa, yellow catalpa | CAS | 1 | 0 |
|  | *Catalpa speciosa* | (Warder) Engelm. | Bignoniaceae | northern catalpa, hardy catalpa | ENAM | 0 | 0 |
|  | *Cedrus atlantica* | (Endl.) Manetti ex Carrière | Pinaceae | Atlas cedar | NAF | 1 | 0 |
|  | *Cedrus deodara* | (Roxb. ex D.Don) G.Don | Pinaceae | Himalayan cedar | CAS | 1 | 0 |
|  | *Cedrus libani* | A.Rich. | Pinaceae | cedar of Lebanon | WAS | 0 | 0 |
|  | *Celtis occidentalis* | L. | Cannabaceae | common hackberry, nettle tree | ENAM | 0 | 1 |
|  | *Cephalotaxus fortunei* | Hook. | Cephalotaxaceae | Chinese plum-yew | SEAS | 0 | 0 |
|  | *Chamaecyparis lawsoniana* | (A.Murray bis) Parl. | Cupressaceae | Port Orford cedar, Lawson cypress | WNAM | 0 | 0 |
|  | *Chamaecyparis pisifera* | (Siebold & Zucc.) Endl. | Cupressaceae | sawara cypress | EAS | 0 | 0 |
|  | *Cryptomeria japonica* | D.Don | Cupressaceae | Japanese cedar | EAS | 0 | 0 |
|  | *Cupressus arizonica* | Greene | Cupressaceae | Arizona cypress | WNAM | 0 | 0 |
|  | *Cupressus dupreziana* | A.Camus | Cupressaceae | Saharan cypress | NAF | 0 | 0 |
|  | *Cupressus lusitanica* | Mill. | Cupressaceae | Mexican white cedar | CAM | 0 | 0 |
|  | *Cupressus macrocarpa* | Hartw. | Cupressaceae | Monterey cypress | WNAM | 0 | 0 |
|  | *Cupressus* ×*leylandii* | A.B.Jacks & Dallim. | Cupressaceae | Leyland cypress | WNAM | 0 | 0 |
|  | *Elaeagnus angustifolia* | L. | Elaeagnaceae | Russian olive, silver berry | WAS | 0 | 1 |
|  | *Elaeagnus umbellata* | Thunb. | Elaeagnaceae | Japanese silverberry | EAS | 1 | 0 |
|  | *Eucalyptus* ×*trabutii* | M.Vilm. | Myrtaceae | hybrid | AUS | 0 | 0 |
|  | *Eucalyptus amygdalina* | Labill. | Myrtaceae | black peppermint | AUS | 0 | 0 |
|  | *Eucalyptus botryoides* | Sm. | Myrtaceae | Bangalay | AUS | 0 | 0 |
|  | *Eucalyptus camaldulensis* | Dehnh. | Myrtaceae | river red gum | AUS | 1 | 0 |
|  | *Eucalyptus globulus* | Labill. | Myrtaceae | Tasmanian bluegum | AUS | 1 | 0 |
|  | *Eucalyptus gomphocephala* | DC. | Myrtaceae | Tuart | AUS | 0 | 0 |
|  | *Eucalyptus gundal* |  | Myrtaceae | hybrid gum | AUS | 0 | 0 |
|  | *Eucalyptus gunnii* | Hook.f. | Myrtaceae | cider gum | AUS | 0 | 0 |
|  | *Eucalyptus occidentalis* | Endl. | Myrtaceae | flat-topped Yate | AUS | 0 | 0 |
|  | *Eucalyptus resinifera* | Sm. | Myrtaceae | red mahogany | AUS | 0 | 0 |
|  | *Eucalyptus robusta* | Sm. | Myrtaceae | swamp mahogany | AUS | 0 | 0 |
|  | *Eucalyptus viminalis* | Labill. | Myrtaceae | manna gum | AUS | 0 | 0 |
|  | *Ficus elastica* | Roxb. ex Hornem. | Moraceae | rubber fig | SEAS | 0 | 0 |
|  | *Ficus microcarpa* | L.f. | Moraceae | Chinese banyan | SEAS | 0 | 0 |
|  | *Fraxinus americana* | L. | Oleaceae | White ash, American ash | ENAM | 0 | 0 |
|  | *Fraxinus pennsylvanica* | Marshall | Oleaceae | green ash | ENAM | 1 | 3 |
|  | *Ginkgo biloba* | L. | Ginkgoaceae | ginkgo | EAS | 0 | 0 |
|  | *Gleditsia triacanthos* | L. | Fabaceae | honey locust, thorny locust | ENAM | 2 | 0 |
|  | *Juglans ailantifolia* | Carrière | Juglandaceae | Japanese walnut | EAS | 0 | 0 |
|  | *Juglans cinerea* | L. | Juglandaceae | butternut, white walnut | ENAM | 0 | 0 |
|  | *Juglans mandshurica* | Maxim. | Juglandaceae | Manchurian walnut | EAS | 0 | 0 |
|  | *Juglans nigra* | L. | Juglandaceae | eastern black walnut | ENAM | 1 | 0 |
|  | *Juniperus virginiana* | L. | Cupresaceae | red cedar, eastern redcedar | ENAM | 0 | 0 |
|  | *Larix gmelinii* | (Rupr.) Kuzen. | Pinaceae | Dahurian larch | EAS | 0 | 0 |
|  | *Larix kaempferi* | (Lamb.) Carrière | Pinaceae | Japanese larch | EAS | 0 | 0 |
|  | *Larix* ×*eurolepis* | A.Henry | Pinaceae | hybrid larch | # | 1 | 0 |
|  | *Larix* ×*marschlinsii* | Coaz | Pinaceae | hybrid larch | # | 0 | 0 |
|  | *Ligustrum japonicum* | Thunb. | Oleaceae | Japanese privet | EAS | 0 | 0 |
|  | *Ligustrum lucidum* | W.T.Aiton | Oleaceae | Chinese privet | SEAS | 1 | 0 |
|  | *Liquidambar styraciflua* | L. | Altingiaceae | American sweetgum, sweet gum | ENAM | 1 | 0 |
|  | *Liriodendron tulipifera* | L. | Magnoliaceae | yellow poplar, tuliptree, whitewood | ENAM | 1 | 0 |
|  | *Melia azedarach* | L. | Meliaceae | Chinaberry, pride-of-India | SEAS | 0 | 0 |
|  | *Metasequoia glyptostroboides* | Hu & W.C.Cheng | Cupressaceae | dawn redwood | EAS | 0 | 0 |
|  | *Nothofagus* sp*.* | Blume | Nothofagaceae | southern beech | SAM | 0 | 0 |
|  | *Paulownia elongata* | S.Y.Hu | Paulowniaceae | paulownia | EAS | 0 | 0 |
|  | *Paulownia fortunei* | (Seem.) Hemsl. | Paulowniaceae | dragon tree | EAS | 0 | 0 |
|  | *Paulownia tomentosa* | (Thunb.) Steud. | Paulowniaceae | princess tree, empress tree | EAS | 2 | 0 |
|  | *Phellodendron amurense* | Rupr. | Rutaceae | Amur cork tree | EAS | 0 | 0 |
|  | *Phoenix canariensis* | Hort. ex Chabaud | Arecaceae | Canary island date palm | NAF | 0 | 0 |
|  | *Picea engelmannii* | Parry ex. Engelm. | Pinaceae | Engelmann spruce, white spruce | WNAM | 0 | 0 |
|  | *Picea glauca* | (Moench) Voss | Pinaceae | white spruce, Canadian spruce | NNAM | 0 | 0 |
|  | *Picea mariana* | (Mill.) B.S.P. | Pinaceae | black spruce | NNAM |  |  |
|  | *Picea obovata* | Ledeb. | Pinaceae | Siberian spruce | NAS | 0 | 0 |
|  | *Picea orientalis* | (L.) Peterm. | Pinaceae | oriental spruce, Caucasian spruce | WAS | 0 | 0 |
|  | *Picea pungens* | Engelm. | Pinaceae | (Colorado) blue spruce, silver spruce | WNAM | 0 | 0 |
|  | *Picea sitchensis* | (Bong.) Carrière | Pinaceae | Sitka spruce | NNAM | 2 | 0 |
|  | *Picea* ×*lutzii* | Little | Pinaceae | Lutz spruce | NNAM | 0 | 0 |
|  | *Pinus banksiana* | Lamb. | Pinaceae | Jack pine | NNAM | 0 | 0 |
|  | *Pinus contorta* | Douglas ex Loudon | Pinaceae | lodgepole pine | WNAM | 1 | 1 |
|  | *Pinus koraiensis* | Siebold & Zucc. | Pinaceae | Korean pine | EAS | 0 | 0 |
|  | *Pinus muricata* | D. Don | Pinaceae | bishop pine | WNAM | 0 | 0 |
|  | *Pinus palustris* | Mill. | Pinaceae | longleaf pine | ENAM | 0 | 0 |
|  | *Pinus ponderosa* | Douglas ex. C.Lawson | Pinaceae | Ponderosa pine | WNAM | 0 | 0 |
|  | *Pinus radiata* | D. Don | Pinaceae | Monterey pine, radiata pine | WNAM | 0 | 0 |
|  | *Pinus resinosa* | Aiton | Pinaceae | red pine | ENAM | 0 | 0 |
|  | *Pinus rigida* | Mill. | Pinaceae | pitch pine | ENAM | 1 | 0 |
|  | *Pinus sibirica* | Du Tour | Pinaceae | Siberian pine | NAS | 0 | 0 |
|  | *Pinus strobus* | L. | Pinaceae | eastern white pine, Weymouth pine | ENAM | 4 | 1 |
|  | *Pinus taeda* | L. | Pinaceae | loblolly pine, southern yellow pine | ENAM | 1 | 0 |
|  | *Pinus wallichiana* | A.B.Jacks | Pinaceae | Bhutan pine, Himalayan pine | CAS | 0 | 0 |
|  | *Platanus occidentalis* | L. | Platanaceae | American sycamore, American plane | ENAM | 0 | 0 |
|  | *Platanus* x *acerifolia* | (Aiton) Willd. | Platanaceae | London plane, hybrid plane | # | 1 | 0 |
|  | *Platycladus orientalis* | (L.) Franco. | Cupressaceae | oriental arborvitae, Chinese thuja | EAS | 1 | 0 |
|  | *Populus balsamifera* | L. | Salicaceae | balsam poplar | NNAM | 1 | 0 |
|  | *Populus deltoides* | W.Bartram ex Marshall | Salicaceae | eastern cottonwood, necklace poplar | ENAM | 0 | 0 |
|  | *Populus maximowiczii* | Henry | Salicaceae | Japanese poplar | EAS | 0 | 0 |
|  | *Populus tremula* ×*tremuloides* |  | Salicaceae | hybrid aspen | # | 0 | 0 |
|  | *Populus trichocarpa* | Torr. & A.Gray ex Hook | Salicaceae | black cottonwood, California poplar | WNAM | 1 | 0 |
|  | *Populus* ×*canadensis* | Moench | Salicaceae | Canadian poplar | # | 1 | 2 |
|  | *Populus* ×*interamericana* |  | Salicaceae | hybrid poplar | # | 0 | 0 |
|  | *Prunus serotina* | Ehrh. | Rosaceae | black cherry, mountain cherry | ENAM | 1 | 9 |
|  | *Pseudotsuga menziesii* | (Mirb.) Franco | Pinaceae | Douglas fir | WNAM | 5 | 1 |
|  | *Ptelea trifoliata* | L. | Rutaceae | common hoptree | ENAM | 0 | 1 |
|  | *Pterocarya fraxinifolia* | (Poir.) Spach | Juglandaceae | Caucasian wingnut | WAS | 0 | 0 |
|  | *Quercus macrocarpa* | Michx. | Fagaceae | bur oak | ENAM | 0 | 0 |
|  | *Quercus palustris* | Münchh. | Fagaceae | pin oak | ENAM | 0 | 0 |
|  | *Quercus rubra* | L. | Fagaceae | northern red oak, champion oak | ENAM | 7 | 3 |
|  | *Quercus shumardii* | Buckley | Fagaceae | Shumard oak | ENAM | 0 | 0 |
|  | *Robinia hispida* | L. | Fabaceae | bristly locust, rose-acacia | ENAM | 0 | 0 |
|  | *Robinia neomexicana* | A.Gray | Fabaceae | New Mexican locust | WNAM | 1 | 0 |
|  | *Robinia pseudoacacia* | L. | Fabaceae | black locust | ENAM | 2 | 17 |
|  | *Robinia viscosa* | Vent. | Fabaceae | clammy locust | ENAM | 0 | 0 |
|  | *Salix alaxensis* | (Andersson ex DC.) Coville | Salicaceae | Alaska willow | WNAM | 1 | 0 |
|  | *Salix babylonica* | L. | Salicaceae | Babylon willow, weeping willow | CAS | 0 | 0 |
|  | *Sequoia sempervirens* | (D.Don) Endl. | Cupressaceae | coast redwood, California redwood | WNAM | 0 | 0 |
|  | *Sequoiadendron giganteum* | (Lindl.) J.Buchholz | Cupressaceae | giant sequoia, giant redwood | WNAM | 0 | 0 |
|  | *Styphnolobium japonicum* | (L.) Schott | Fabaceae | Japanese pagoda tree, sophora | EAS | 0 | 0 |
|  | *Taxodium distichum* | (L.) Rich. | Cupressaceae | bald cypress, southern cypress | ENAM | 0 | 0 |
|  | *Thuja occidentalis* | L. | Cupressaceae | white cedar, arborvitae | ENAM | 0 | 0 |
|  | *Thuja plicata* | Donn ex D.Don | Cupressaceae | western red cedar, giant arborvitae | WNAM | 0 | 0 |
|  | *Thujopsis dolabrata* | Siebold & Zucc. | Cupressaceae | hiba, false arborvitae | EAS | 0 | 0 |
|  | *Tilia americana* | L. | Tiliaceae | American basswood | ENAM | 0 | 0 |
|  | *Trachycarpus fortunei* | (Hook.) H.Wendl. | Arecaceae | Chinese windmill palm | EAS | 1 | 0 |
|  | *Tsuga canadensis* | Carrière | Pinaceae | eastern hemlock, Canadian hemlock | ENAM | 0 | 0 |
|  | *Tsuga heterophylla* | Sarg. | Pinaceae | western hemlock | WNAM | 0 | 0 |
|  | *Ulmus pumila* | L. | Ulmaceae | Siberian elm | CAS | 1 | 1 |
|  | *Washingtonia robusta* | H.Wendl. | Arecaceae | Mexican fan palm | WNAM | 0 | 0 |