CULTIVAR CHECKLIST OF WHITE OAK SPECIES (EXCL. QUERCUS ROBUR L.)

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Abstract. Cultivars of species in the genus Quercus, subgenus Quercus (white oaks, excl. Q. robur L.) are listed and described. Valid cultivar names are found in only the following species: Q. alba, Q. dentata, Q. frainetto, Q. ilex, Q. macrocarpa, Q. petraea, Q. pubescens and Q. pyrenaica. Invalid names are listed in many of the above-mentioned species as well as in Q. bicolor. A listing of cultivars of white oak hybrids is included.

The first installment in our listings of Quercus (oak) cultivars (5) concerned only one species, the English oak (Quercus robur L.). The present list includes the cultivars in the remaining species of the subgenus QUERCUS (= subg. LEPIDOBALANUS Endl.).

Cultivar names encountered in this subgenus present a special challenge. The proclivity of early taxonomists and horticulturists to use descriptive and, in today’s manner of thinking, somewhat erudite latin adjectives (e.g. ‘Pendula’, ‘Variegata’) to denote plants that differed from the norm, resulted in many cultivar names that have been used for more than one species in this subgenus. This is especially true for Q. petraea (Mattuschka) Liebl. (= Q. sessiliflora Salisb.), which has 12 cultivar names in common with Q. robur (= Q. pedunculata Ehrh.).

The duplication of cultivar names between Q. robur and the other white oak species is considerably less frequent, but there are occasional duplications among these other species. The Code (3) specifies that only one cultivar within each “cultivar class” can be valid.

According to the Code, a cultivar class may be a genus, subgenus, section, series, or species, with the major criterion for class selection being the absence of potential confusion in the identification of plants bearing the same cultivar name. One codicil that could be added to this criterion might be the actual existence of a plant under a duplicate name.

It is well known that natural hybridization occurs between oak species in the same subgenus. It should be better known that such hybridization is far less frequent than is stated by many authorities. Indeed, the fact that we can actually identify and classify oak species, especially when the range of infraspecific variability is known, tends to reduce any possible confusion of cultivars. In addition, a review of several recent horticultural compilations (1, 2, 4) has revealed that very few of the same-named cultivars of different white oak species are currently in cultivation. Therefore, we consider it both proper and expedient to use the species as the cultivar class. It follows that there is no need to invalidate cultivar names based on priority. The present listing will show the range of variation possible within species.

We have recognized cultivars in the following species: Q. alba L., Q. dentata Thunb., Q. frainetto Ten., Q. ilex L., Q. macrocarpa Michx., Q. petraea, Q. pubescens Willd., and Q. pyrenaica Willd., and the cultivar lists are presented under each species in this alphabetical order. In addition, a small listing of cultivars of oak hybrids is appended.

Quercus alba, Q. bicolor, and Q. macrocarpa are North American species but, with one interesting exception, none of the cultivars are grown in North America. Q. dentata is an Asiatic species and all others are of European origin.

As in previous lists, VALID CULTIVARS are given in boldface capitals and INVALID names in lightface capitals. Many more INVALID names, previously used as “varieties”, could have been listed in some species, but these were mostly derived from unnecessary “splitting” of natural variants in the wild (see Schwarz, 6), and did not merit further recognition.

Quercus alba

ELONGATA (H. Jager and L. Beissner, Die Ziergeholze, Ed. 3, Weimar, 1889, p. 277) - as Q. alba elongata; with longer narrower leaves which turn orange-red in autumn. Earliest reference and origin of this cultivar is unknown.


LATILOBA (C.S. Sargent, Bot. Gaz. 65: 454, 1918) - as var. latiloba. Later changed to f. latiloba according to A.,
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Q. frailnetto

TRUMP (H.J. Grootendorst, Dendroflora Nr. 17, 1980, p. 24-33) - a new selection of the N.A.K.B. (Nederlandse Algemene Keuringsdienst voor Boomwekkerij - General Netherlands Inspection Service); tree with dense oval crown, branches fairly steeply ascending, original tree found on Tromp street.

Q. ilex

BICTON (Hillier’s Manual of Trees & Shrubs, ed. 2, Hillier & Sons Limited, Winchester, England, 1972, p. 256, and perhaps earlier publications) - with large, broad leaves; a remarkable old specimen at Bicton, South Devon.

CRISPA (J.C. Loudon, Arboretum et Fruticetum Britannicum, London, 1838, p. 1899) - As Q. l. crispa Lodd. Cat. ed. 1836; leaves wrinkled at edges. According to W.J. Bean, Trees and Shrubs Hardy in the British Isles, Ed. 8, vol. III, 1976, p. 483, the leaves are small and obicular, averaging $\frac{1}{2}$ in. in length, the margin decurved; slow growing and known in gardens since the early 19th century.

CURLLEAF (H.P. Kelsey and W.A. Dayton, Standardized Plant Names, 1942, p. 507) = CRISPA.

DIVERSIFOLIA (Royal Gardens, Kew Hand-list of Trees Shrubs Grown in Arboretum, 1896, Part II, p. 189) - as var. diversifolia, Hort., without description.

FAGIFOLIA (J.C. Loudon, Arboretum et Fruticetum Britannicum, London, 1838, p. 1899) - as Q. f. fagifolia Lodd. Cat., ed. 1836; broader, less rigid leaves, which are more or less undulated, and sometimes slightly serrated.

FORDII (H.P. Kelsey and W.A. Dayton, Standardized Plant Names, 1942, p. 507) = FORDII.

FORDII (J.C. Loudon, The Gardener’s Magazine 19: 36, 1843) - as Quercus ilex Fordii, “a distinct and very beautiful variety which assumes a conical shape, and is a fine grower.”


LANUGINOSA (A. Lavallee, Arb. Segrezianum, Paris, 1877, p. 197) - as Q. ilex var. lanuginosa; without description.

LATIFOLIA (J.C. Loudon, Arboretum et Fruticetum Britannicum, London, 1838, p. 1899) - as Q. l. latifolia Lodd. Cat., ed. 1836, with Q. l. oblonga Hort. as a synonym; broad leaves, nearly entire, may be upwards of 5 in. long. Apparently introduced by the Loddiges Nurs., Hackney, England.

LITTLEAF (H.P. Kelsey and W.A. Dayton, Standardized Plant
Names, 1942, p. 507) = MICROPHYLLA

**LONGIFOLIA** (J.C. Loudon, Arboretum et Fruticetum Britanicum, London, 1838, vol. 3, p. 1900) - as *Q.I. longifolia* Lodd. Cat., ed. 1836 with synonym *Q.I. salicifolia* Hort., long, very narrow leaves; plant propterated from a tree at Sawbridgewood by the nursery of Messrs. Rivers. The Loddiges Nurs. (Hackney, England) tree and the Messrs. Rivers tree may actually represent two separate cultivars but the latter may have gone unnamed.


**MACROPHYLLA** (K. Koch, Dendrologie 2, 1873, p. 56 - as Q. *ilex macrophylla*; there are two different selections bearing this appearance, one with elongated leaves with teeth and the underside silver grey, the other resembling the Himalayan *Q. incana*.)

**MICROPHYLLA** (G. Krussmann, Handbuch der Laubholze, Berlin, 1962, vol. 2, p. 305) - as *Q. ilex f. microphylla*; leaves elliptical, 2-2.7 cm long, 1.2 cm wide, with thorny teeth, native to the mountains of Algeria. Probably a geographic variant of the species.

**ROTUNDIFOLIA** (Lamarck, Encyclopédie methodique I, p. 723 (1785); original reference not seen) - as *Q. rotundifolia*; leaves rounded with piercing teeth, fruit eaten because of their mild taste (K. Koch, Dendrologie 2, Part 2, 1873, p. 55). According to W.J. Bean, Trees and Shrubs Hardy in the British Isles, Ed. 8, vol. III, 1976, p. 484, there is an example of this selection at Kew (Gardens); should not be confused with *Q. ilex var. ballota* a botanical variety from the southern Iberian peninsula and N. Africa), which is treated in some works as *Q. ilex var. rotundifolia*.


**SHEPHERDI** (A. Lavallee, Arb. Segrezianum, Paris, 1877, p. 197) - as *Q. ilex var. Shepherdii; without description.*

**SMILAX** (K. Koch, Dendrologie 2, Part 2, 1873, p. 55) - as *Qu. Smilax*; described as such by Linnaeus, Species Plantarum II, p. 994, leaves entire, narrowly elongated.

**VARIEGATA** (J.C. Loudon, Arboretum et Fruticetum Britannicum, London, 1838, vol. 3, p. 1899) - *Q.I. variegata*; leaves variegated with white; brought into notice in 1835 by Mr. Veitch of the Killerton Nursery.

**Q. macrocarpa**

**ASHWORTH** - Name found in the records of the Plant Sciences Data Center of the American Horticultural Society, grafted plant growing at the Holden Arboretum, Mentor, Ohio. Original tree selected by Mr. Fred Ashworth, Huevelton, New York, for abundant production of sweet, edible fruit (L.H. MacDaniels, the Cornell Plantations, vol. 38 (1), 1980). A small grove of seedlings from this cultivar were planted in 1979 at the Cornell Plantations, Seneca County, New York (L.H. MacDaniels, l.c.).


**OLIVAEFORMIS** - A. Rehder, Bibliography of Cultivated Trees Shrubs, Arnold Arboretum of Harvard University, 1949, p. 133, considers this a valid variety of *Q. macrocarpa*, as var. *olivaeformis* (Michx. f.) Gray. Not a cultivar but may be the most common sort grown in European gardens (B.K. Boom, Nederlandse Dendrologie, Wageningen, 1972, p. 128.)

**OLIVAEFORMIS HAMPTERI** (L. Dippel, Handbuch der Laubholzkunde 2, 1892, p. 80) - See *Q. alba* "OLIVAEFORMIS HAMPTERI". Probably = *Q. macrocarpa*, but not a cultivar of that species.


**PANNOSA** (L. Dippel, Handbuch der Laubholzkunde 2, 1892, p. 80) - as *Qu. pannosa*, listed under *Q. macrocarpa*, and is probably that species. Previously considered a cultivar of *Q. alba*.

**Quercus petraea**

**ACUMINATA** (E. Petzold and G. Kirchner, Arboretum Muscaviense, Gotha, 1864, p. 630) - as *Quercus sessiliflora acuminata*; leaves oblong-oval, acuminate, margin undulate, with short rounded teeth, petioles long and yellow, foliage a bright, shiny green. Three trees found in native woodland, and probably not cultivated.

**ACUTIFOLIA** (L. Dippel, Handbuch der Laubholzkunde 2, 1892, p. 86) - as equivalent to ACUMINATA, and with similar description. An earlier reference is cited but is unavailable. Probably not cultivated.

**ACUTOILOBA** (L. Dippel, Handbuch der Laubholzkunde 2, 1892, p. 67 - as *Quercus sessiliflora acutiloba*; twigs reddish and somewhat hairy in youth, leaves with reddish-yellow petioles, margin coarsely serrate with short pointed teeth, base somewhat cordate or sharply narrowed.

**AFGHANISTANENSIS** (E. Petzold and G. Kirchner, Arboretum Muscaviense, 1864, p. 630) - as *Quercus sessiliflora Afghanistanensis* Bth.; plant received from the Flottbeck Nursery (James Booth and Sons, Flottbeck, Germany), similar to 'Acuminata' but the foliage is somewhat more luxuriant; the leaves are broader; doubtful that it came from Afghanistan as noted in their catalog.

**ALBO-VARIEGATA** (C.K. Schneider, Handbuch der Laubholzkunde 1, 1904, p. 196) - as *Q. sessilis f. albo-variegata*; leaves variegated white.

**ALNOIDES** (A. Lavallee, Arb. Segrezianum, Paris, 1877, p. 201) - as *Quercus sessiliflora alnooides*; without description. L. Dippel, Handbuch der Laubholzkunde 2, 1892, p. 67, described this selection as having ovoid leaves with rounded tips, shallow rounded lobes, and pubescent along the veins but with scattered short hairs on the remaining surfaces.

**AMBIGUA** (A. Lavallee, Arb. Segrezianum, Paris, 1877, p. 201) - as *Q. sessiliflora ambiguus*; without description.

**ARGENTEO-VARIEGATA** (A. Lavallee, Arb. Segrezianum, Paris, 1877, p. 201) - as *Q. sessiliflora argenteo-variegata*; without description.

**AUREA** (G. Krussmann, Handbuch der Laubholze, Ed. 1, vol. 2, 1962, p. 312) - young shoots yellow, leaves first yellow but later turning green, with only the veins yellow; based on var. *aurea* Schur.; originated before 1857.

**AUREO-MACULATA** (L. Dippel, Handbuch der Laubholzkunde 2, 1892, p. 67) - as *Q. sessiliflora aureo-maculata*; with yellowish-white margined leaves.

**AUREO-VARIEGATA** (C.K. Schneider, Handbuch der Laubholzkunde 1, 1904, p. 196) - *Q. sessilis f. aureo-variegata*; leaves variegated yellow.
COCHLEATA (E. Petzold and G. Kirchner, Arboretum Musca
viense, Gotha, 1864, p. 630) - as Quercus sessiliflora
cocchleata Hort.; with blistered, inflated leaves.
COLUMNA See under hybrid listing.
COLUMNARE - Name found in the records of the Plant Sci-
ences Data Center of the American Horticultural Society; plant at the Arboretum of the Barnes Foundation, Merion,
Pennsylvania, and received from the Brimfield Gardens
Nursery, Wethersfield, Connecticut. May = COLUMNA.
COLUMNARIS (Hilliers' Manual of Trees and Shrubs, Ed. 2,
258) - a densely-branched columnar tree of medium size,
aroze as a sport of 'Mespilifolia'. Doubtful that this is the
same as 'Columna', and the name 'Columnaris' is invalid
because in Latin form after January 1, 1959.
201) - as Q. sessiliflora cucullata; without description.
CUTLEAF (H.P. Kelsey and W.A. Dayton, Standardized Plant
Names, 1942, p. 508) - intended as name to replace IN-
SECATA and LACINIATA.
DEVONIANA (The Augustine Henry Forestry Herbarium at the
National Botanic Gardens, Glasnevin, Dublin, A Cata-
logue of Specimens, 1957, p. 70) - as Q. petraea var. devoniana Hort., without description.
DSCHOROCHENSIS (The Augustine Henry Forestry Her-
barium at the National Botanic Gardens, Glasnevin, Dublin,
A Catalogue of Specimens, 1957, p. 70) - as Q. petraea var. dschorochensis Hort., without description.
Name also used by O. Schwarz, Monographie der Eichen Europas und des Mittelmeergebietes, 1. Textband, Berlin,
1937, p. 64, as Q. dschorochensis K. Koch, Linnaea XXII
(1849) 328. Not considered a valid species name but
likely cultivated.
FALKENBERGENSIS (E. Petzold and G. Kirchner, Arboretum
Muscaviense, 1864, p. 630 - as Quercus sessiliflora
Falkenbergensis Bth.; originated in the nursery of James
Booth and Sons (Flottbeck, Germany), leaves dark-
green, blunt and widened at the tips, with shallow, roun-
dish lobes; original tree found near Falkenberg (near
Hamburg, Germany). According to W.J. Bean, Trees and
501, cultivar was put into commerce by Booth's in 1837.
FULHAMENSIS (L. Dippel, Handbuch der Laubholzkunde 2,
1892, p. 67) - as Q. sessiliflora. Fulhamensis, a synonym
for AFGHANISTANENSIS.
GELTOWIENSIS (E. Petzold and G. Kirchner, Arboretum
Muscaviense, Gotha, 1864, p. 630-631) - as Quercus sessiliflora
Geltowiana; received as an unnamed seedling from the Royal Nursery in Geltow (near Potsdam, East
Germany), given the name 'Geltowiana' by Petzold and
Kirchner; similar to 'Acuminata' and 'Afghanistanensis'
but with blistered and inflated leaves. Name changed to
'Geltowiensis' by W.J. Bean, Trees and Shrubs Hardy in
the British Isles, Ed. 8, vol. III, 1976, p. 501, and con-
sidered to be a cultivated selection arising from f.
sessiliflora cucullata (Kit.) Schned.
Jaarb. 20: 37-120, 1954-55, this cultivar was first listed
as Q. sessiliflora gesleri by L. Spath, Cat. No. 64, 1885,
p. 4; tree found by the court gardener Giesler in Glenicke near Postdam, Germany; with very long, nar-
row leaves, partly with shallow lobes and partly entire.
HETEROPHYLLA (L. Beissner, E. Schelle, and H. Zabel,
79) - as Quercus sessiliflora heterophylla; without
description. Apparently intended to replace the names listed as synonyms, CUCULLATA, COCHLEATA, and
CRISPA, but since these names do not all represent the
same selection, we do not consider HETEROPHYLLA to
represent a cultivar.
IBERICA (W.J. Bean, Trees and Shrubs Hardy in the British
iberica, with lobes of leaf pointed. A. Lavallee, Arb.
Segrezianum, 1877, p. 202, listed it without description,
but with synonym Q. iberica Bieb. Since Q. iberica has
rounded leaf lobes, the plant mentioned by Bean is prob-
bly a distinct cultivar of Q. petreae.
INSECATA (G. Krussmann, Handbuch der Laubholz-Benennung, Ed. 2,
cut and lobed, partly filiform, dark green, occasionally
with whitish border; based on f. insecata Rehder (A.
Rehder. J. Arnold Arboretum 22:569-579, 1941) and f.
22:118-1434, 1913). Rehder proposed the name 'In-
secata' (at the forma level) for the oak described as Quer-
cus sessiliflora laciata Koehne (Deutsche Dendr.,
1893, p. 130), a plant known only in cultivation, since
the older homonym Q. sessiliflora laciata (Lam.) Lamar-
cck & DeCandolle (Fl. Franc., Ed. 3, vol. 3, p. 310, 1805)
refers to a frequent, naturally occurring variant. The name 'Insecata' was actually proposed by A. Rehder even
earlier as Q. sessiliflora f. insecata (J. Arnold Arboretum
1:135, 1919).
LACINIATA (G. Krussmann, Handbuch der Laubholze
Based on the plant originally described by Lamark (En-
cyclo. Meth. Bot. 1:717, 1768) as Quercus robur
laciniata.
LACINIATA CRISPA (H.A. Hesse (Nurs.), Weener, Germany,
Cat. Fall 1928 - Spring 1929, p. 145) - as Q. sessiliflora
laciniata crispa Hort. Musk.; leaves more or less irregular-
ly incised and lobed, often very narrow and drawn out in
length.
LONGIFOLIA - L. Dippel (Handbuch der Laubholzkunde 2,
1892, p. 66) used this name to replace other names
considered as synonyms, but since these names do not
all represent the same selection, we do not consider
LONGIFOLIA to represent a cultivar.
LOUETTEI (E. Petzold and G. Kirchner, Arboretum Musca-
vienne, Gotha, 1864, p. 631) - as Quercus sessiliflora
Louettel; received from the Flottbeck Nurs. (James
Booth and Sons, Flottbeck, Germany) as Qu. pedun-
culata Louettel; with long yellow petioles, leaves very
long and narrow, entire, pointed at both ends, and dark,
shiny green. According to A. Rehder, Bibliography of
Cultivated Trees and Shrubs, Arnold Arboretum of Har-
vard University, 1949, p. 129, = MESPILIFOLIA, but
it is more likely these are two similar, but distinct cultivars.
MACROCARPA (E. Petzold and G. Kirchner, Arboretum
Muscaviense, Gotha, 1864, p. 631) - Quercus sessiliflora
macrocarpa; acorns the size of large plums, luxuriant foliage.
MACROPHYLLA (E. Petzold and G. Kirchner, Arboretum
Muscaviense, Gotha, 1864, p. 631) - as Quercus sessiliflora
macrophylla Hort.; received from the Travemund
Nursery, with exceedingly large and vigorous, elongated
leaves.
MEDLAR (H.P. Kelsey and W.A. Dayton, Standardized Plant
Names, 1942, p. 508) = MESPILIFOLIA.
MESPILIFOLIA (A. Rehder, Bibliography of Cultivated Trees
for AFGHANISTANENSIS.

and Shrubs, Arnold Arboretum of Harvard University, 1949, p. 129) - as *Q. petraea f. mespilifolia* (Walt.), grad. nov. Although this tree was originally described from the wild and this type of variation may occur in the wild, we consider it a cultivar since plants available now as *Mespilifolia* are presumably vegetatively propagated and therefore identical. “Leaves lanceolate to narrowly oblong, up to 5 in. long, 1 in. wide, tapered at both ends, sinuately lobed to almost entire” (W.J. Bean, Trees and Shrubs Hardy in the British Isles, Ed. 8, vol. III, 1976, p. 501).


**NIGRA.** (A. Lavalle, Arb. Segrezianum, Paris, 1877, p. 202) - *Q. sessiflora var. nigra* = *Q. robur* NIGRA.


**PENDULA** (A. Lavalle, Arb. Segrezianum, Paris, 1877, p. 202) - as *Q. sessiflora pendula*; without description. Described by E.-A. Carrière, Rev. Horticole 59:61, 1887; seedling discovered about 1867 growing in the lawn of the military hospital, Vincennes, France, and carefully raised by M. Alliaume, the chief gardener; original tree grew to approximately 5 feet in height and then all branches spread out laterally and become pendulous, forming as immense dome; to propagate, trees were grafted at a height to allow passage beneath.

**PINNATA.** (C.K. Schneider, Handbuch der Laubholzkunde 1, 1904, p. 196, fig. 102e) - as *Q. sessiflora f. pinnata*, leaves as in fig. 102e.

**PSEUDOBULLATA** (A. Camus, Les Chenes, Monographie du genre Quercus, 1938-1939, Tome II, p. 230) - as var. pseudobullata, leaves bullate between the veins.


**PURPUREA** (H.P. Kelsey and W.A. Dayton, Standardized Plant Names, 1942, p. 508) = **PURPUREA.**

**PURPUREA.** (A. Lavalle, Arb. Segrezianum, Paris, (Oct.) 1877, p. 202) - as *Q. sessiflora purpurea*; without description. According to K. Krusmann, Handbuch der Laubgehölze, Ed. 1, vol. 2, 1962, p. 313, the leaves are at first brownish-purple, becoming later dark reddish-gray-green with red veins. Since both *PURPUREA* AND RUBICUNDA were first published in 1877, some authors (Bean, Krusmann) consider them to be indistinguishable, however the former has priority through a publication date one month earlier than the latter.


**RUBICUNDA** (C. van Kleef, Sieboldia 3, No. 46, (Nov.) 1877, p. 374-377) - as *Q. sessiflora rubicunda*, with chestnut-brown leaves which become dark green with age. W.J. Bean, Trees and Shrubs Hardy in the British Isles, Ed. 8, vol. 3, 1976, p. 501, stated that the young leaves were reddish-purple. = **PURPUREA.**

**SALICIFOLIA** (Hillers’ Manual of Trees & Shrubs, Hillier & Sons Limited, Winchester, England, 1972, p. 258) - leaves ovate-oblong to oblong-lanceolate, entire or with an occasional shallow lobe; original tree in the Trompenburg Arboretum, Rotterdam, the Netherlands.


**SPEENSIUS** (T. Ottolander, Sieboldia 5(17): 131-133, 1879) - as *Q. sessiflora speenensis*; leaves broad and short.

**VARIABILIS** (L. Dippel, Handbuch der Laubholzkunde 4, 1989, p. 67) - as *Q. sessiflora variabilis*; with yellowish-white spotted leaves.

**VARIEGATA** (L. Dippel, Handbuch der Laubholzkunde 4, 1989, p. 67) - as *Quercus sessiflora variegata*; variegated leaved oak. Probably best considered a forma designation from which various cultivars were selected (e.g. "Aureomaculata" and 'Variabilis').

**WEEPING** (H.P. Kelsey and W.A. Dayton, Standardized Plant Names, 1942, p. 508) = **PENDULA.**

**Q. pubescens**


**BRACHYPHYLLA** - Often listed as a form, subspecies, variety, or synonym of *Q. pubescens*, but considered as a species, *Q. brachypylla* Kotschy, by W.J. Bean, Trees and Shrubs Hardy in the British Isles, Ed. 8, vol. III, 1976, p. 505-506.

**BRACHYPHYLLOIDES** (C.K. Schneider, Handbuch der Laubholzkunde 4, 1904, p. 194-195) - as *Q. lanuginosa* (*Q. pubescens*) f. brachyphyllloides (Wiesb.), (=var. typica Beck, Fl. N. Ostr. 273, 1870); leaves with short lobes, illus. Fig. 122, b.c. Since Beck's var. *typica* = *Q. pubescens* Willld. according to A. Rehder. Bibliography of Trees and Shrubs, Arnold Arboretum of Harvard University, 1949, p. 127, it is likely that "Brachyphyllloides" also = *Q. pubescens*.

**CRISPATA** (L. Dippel, Handbuch der Laubholzkunde 4, 1989, p. 70-71) - *Quercus, pubescens crispata*; with curled leaves, first described as *Qu. crispata* (Stev. in bull. de la soc. d. nat. d. Mosc. XXX. S, 386, 1857 (not seen)).

**CURRLEAF** (H.P. Kelsey and W.A. Dayton, Standardized Plant Names, 1942, p. 508) = **CRISPATA.**

**CUTLEAF** (H.P. Kelsey and W.A. Dayton, Standardized Plant Names, 1942, p. 508) = **PINNATIFIDA.**


**HARTWISSIANA** (L. Dippel, Handbuch der Laubholzkunde 2, 1892, p. 70) - as *Q. pubescens Hartwissiana* = *Q. hartwissiana* Stev.


**LANUGINOSA** (L. Dippel, Handbuch der Laubholzkunde 2,


PRIONOTA (C.K. Schneider, Handbuch der Laubholzkunde 1, 1904, p. 195) - as Q. lanuginosa (Q. pubescens) f. prinota (Beck, Fl. N. - Ostr. 270, 1890), lobes pointed, incorrectly claimed to be a hybrid with Q. cerris, illus. Fig. 122, d. Probably not cultivated.

TENOREI (A. Rehder, J. Arnold Arboretum 1:121-146, 1919) - as Quercus lanuginosa var. Tenorei, with Quercus Dalechampii Tenore as one of many synonyms. = Q. dalechampii Tenore (A. Rehder, Bibliography of Cultivated Trees and Shrubs, Arnold Arboretum of Harvard University, 1949, p. 130.)

Q. pyrenaica


Hybrids

COLUMNA (H.A. Hesse (Nurs.), Weener, Germany, Cat. Fall 1940-Spring 1941, p. 113) - as Q. sessiliflora "Col- umna"; with large, oblong, narrow, gray-green leaves and upright, dense, growth habit. According to J.R.P. van Hoey-Smith, Rotterdam (personal communication and Journal of the Royal Horticultural Society vol. XCVII, Part 5, May 1973, p. 205-210), 'Colonna' is a hybrid between Q. petraea 'Muscaviensis' and Q. robur 'Fastigiata', and was listed as such in old Hesse catalogs. Mr. van Hoey-Smith has grown numerous seed from 'Colonna' and has found the second generation to exhibit wide variation, ranging from that of one putative parent to the other.

EVERGREEN (H.P. Kelsey and W.A. Dayton, Standardized Plant Names, 1942, p. 508) - as a clone of the "polyhybrid" Q. turneri, with aizooon, austriaea sempervirens, and pseudoturneri as synonyms. = PSEUDOTURNERI.


Literature Cited

Horticulturist and Research Geneticist, respectively.
U.S. National Arboretum
Agricultural Research Service
U.S. Department of Agriculture
Washington, DC 20002