

SUBJECT INDEX

COLD HARDINESS

- Castanea Mill. - Chestnut 1-90
- Cryptomeria japonica (L.f.)D. Don - Cryptomeria 7-26
- Eucalyptus L'Herit. - Eucalyptus 8-11
- Juglans nigra L. - Black walnut 14-77, 19-47
- Larix Mill. - Larch 13-27
- Larix laricina (Du Roi)K. Koch. - Tamarack 10-75
- Liriodendron tulipifera L. - Yellow-poplar 14-79, 15-15
- Picea Abies (L.)Karst. - Norway spruce 5-45, 20-87
- Pinus strobus L. - Eastern white pine 5-9
- Populus L. - Poplar 1-86
- Pseudotsuga menziesii (Mirb.)Franco - Douglas-fir 2-17, 13-50

CYTOLOGY

3-52, 18-72

- Acer saccharinum L. - Silver maple 17-66
- Castanea Mill. - Chestnut 1-73, 6-23
- Larix Mill. - Larch 1-83, 13-14
- Picea glauca (Moench)Voss. - White spruce 16-13
- Pinus ponderosa Laws. - Ponderosa pine 5-24
- Pinus rigida Mill. - Pitch pine 17-25
- Populus L. - Poplar 1-67, 3-52, 5-12
- Populus tremuloides Michx. - Quaking aspen 16-29
- Prunus L. - Cherry 15-39, 15-43, 15-60
- Quercus L. - Oak 10-41
- Solanum tuberosum L. - Cultivated potato 16-11

Triticum aestivum L. - Wheat 3-52

Ulmus americana L. - American elm 16-9

Ulmus pumila L. - Siberian elm 18-75

DISEASE & DISEASE RESISTANCE

1-26, 1-70, 2-8, 2-31, 3-2, 3-6, 3-13, 4-46, 4-69, 7-27, 19-97, 20-5,
20-115

Adelopus (*Phaeocryptopus guamanni*) - Needle cast 1-26, 2-18

Armillaria mellea Vahl. - Shoe-string rot 13-43, 18-70

Ceratocystis fagacearum (Bretz)Hunt. - Oak wilt 2-33, 10-56

Ceratocystis fimbriata f. sp. *platani* - Canker stain 10-56

Ceratocystis ulmi (Buism.)C. Mor. - Dutch elm disease 1-27, 7-48,
8-43, 10-56, 16-9, 18-68

Cercospora liquidambaris Cke. & Ell. - Sweetgum blight 10-56

Coccomyces hiemalis Higg. - Gum spot 2-6, 10-56

Cronartium ribicola Fisch. - White pine blister rust 1-23, 1-27,
1-85, 2-25, 3-6, 5-12, 5-21, 5-46, 8-3, 10-56, 14-59, 15-87, 18-5,
20-115, 20-147

Cronartium fusiforme Hedge. & Hunt. - Fusiform rust 5-15, 8-4, 10-56,
20-143, 20-151

Cryptococcus fagi Baer. - Beech scale-*Nectria* 10-56

Dasyscypha willkommii (Hart.) - Larch canker 7-42, 13-27, 13-32,
19-2

Dematium pullulans (*Pullularia pullulans*) - 11-24

Dibotryon morbosum (Schw.)Th. & Syd. - Black knot 10-56

Diplodia Spp. - Twig blight 1-26

Dothichiza populea Sacc. & Briard. - *Dothichiza* canker 1-28, 10-56,
19-113, 20-10

Endothia parasitica (Murr.)P.J. & H.W. And. - Chestnut blight 1-27,
2-25, 3-2, 5-69, 7-27, 10-56

Fomes annosus (Fr.)Cke. - White root rot 1-26

Fomes pini (Thore)Lloyd. - Heart rot 3-16

Fusarium oxysporum f. *perniciosum* - Mimosa wilt 1-28
Gnomonia platani Edg. - Anthracnose 10-56
 Heartwood decay 2-32, 3-13
Hypoxyylon mammatum (Wahl.) Mill. - Hypoxyylon canker 10-56, 19-97
Lenzites trabea Pers. ex. Fr. - Decay 3-16
Marssonina populi (Lib.) Magn. - Leaf spot 19-113
Melampsora medusae Thum. - Leaf rusts 10-56, 14-87, 15-70, 19-78,
 19-112
Nectria coccinea var. *faginata* Loh. - Beech bark disease 10-56
Nectria galligena Bres. - Target canker 1-26, 14-86, 17-61
Peridermium harknessii J.P. Moore - Western gall rust 1-58
Phacidioypcnis (*Phomopsis*) *pseudotsugae* Wils. - *Phomopsis* disease 2-18
Phytophthora cinnamomi Rands. - European root disease 2-26, 5-15
Pollacia elegans (f.p. *Venturia populina*) - Poplar leaf spot 8-9
Rehmiellopsis balsameae Waterm. - Tip blight fungus 1-29
Rhabdocline pseudotsugae Syd. - Needle cast 2-18
Rhizosphaera kalkhoffii Bud. - Needle cast 1-29
Scirrhia acicola Dearn. Sigg. - Brown-spot fungus 8-4, 20-144
Septoria musiva Pk. - Canker fungus 1-28, 10-56, 19-110
Tympanis confusa Nyl. - Bark canker 1-26
Valsa sordida Nits. (*Cytospora*) - Stem cankers 1-26, 5-45, 10-56, 19-113
Verticillium albo-atrum - *Verticillum* wilt 2-5
 Willow blight - *Fusicladium* (*Pollaccia*) *saliciperda* (*Venturia saliciperda*)
 - Scab fungus plus *Physalospora miyabeana* - black-canker fungus 1-29

ECONOMIC JUSTIFICATION FOR BREEDING PROGRAMS

3-49, 12-3, 18-12, 18-18, 18-23, 20-54, 20-70, 20-142

FLOWER DEVELOPMENT

3-31, 5-8, 5-11, 5-20, 5-71, 6-23, 7-19, 8-35, 8-39, 8-49, 9-6, 9-9,
9-35, 9-41, 10-52, 14-13, 15-42, 16-13, 16-65, 17-65, 19-18, 19-35.

Abies balsamea (L.)Mill. - Balsam fir 19-18

Acer L. - Maple 5-73

Acer Negundo L. - Boxelder 5-71

Acer platanoides L. - Norway maple 5-74

Acer Pseudoplatanus L. - Sycamore maple 5-74, 15-5

Acer saccharinum L. - Silver maple 8-50, 17-65

Alnus B. Ehrh. - Alder 5-75

Betula L. - Birch 5-75

Betula alleghaniensis (Brit.)Ashe. - Yellow birch 15-2

Betula verrucosa Ehrh. - European paper birch 5-72

Fagus L. - Beech 5-75

Fraxinus L. - Ash 5-72

Fraxinus americana L. - White ash 11-4

Fraxinus excelsior L. - European ash 5-72

Fraxinus ornus L. - Flowering ash 5-73

Fraxinus pennsylvanica Marsh. - Green ash 5-71

Juglans nigra L. - Black walnut 20-58, 20-62

Liquidambar styraciflua L. - Sweetgum 15-18

Liriodendron tulipifera L. - Yellow-poplar 15-9

Picea A. Dietr. - Spruce 5-11, 5-56

Picea Abies (L.)Karst. - Norway spruce 16-65

Picea glauca (Moench)Voss. - White spruce 5-56, 16-13

Pinus banksiana Lamb. - Jack pine 14-13, 14-16, 19-35

Pinus elliottii Engelm. - Slash pine 8-49

Pinus resinosa Ait. - Red pine 3-12, 9-6

Pinus rigida Mill. - Pitch pine 17-25
Pinus strobus L. - Eastern white pine 3-12, 5-8, 5-50, 8-39, 9-35,
 9-41, 10-52
Pinus sylvestris L. - Scotch pine 7-19
Populus L. - Poplar 3-28, 5-12, 5-71, 8-35
Populus tremula L. - European aspen 5-71
Populus tremuloides Michx. - Quaking aspen 5-72
Prunus serotina Ehrh. - Black cherry 15-42, 20-48
Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 5-20
Quercus L. - Oak 5-75
Salix L. - Willow 5-71
Tsuga canadensis (L.)Carr. - Eastern hemlock 3-31
Ulmus L. - Elm 5-75
Ulmus americana L. - American elm 7-49

FLOWER INDUCTION

8-39, 9-35, 14-17

Fertilization

Pinus banksiana Lamb. - Jack pine 14-13
Pinus resinosa Ait. - Red pine 14-13
Pinus strobus L. - Eastern white pine 8-39, 8-49, 9-36, 9-51
Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 5-20

Grafting 5-12, 5-50

Root Pruning

Pinus banksiana Lamb. - Jack pine 14-13
Pinus strobus L. - Eastern white pine 8-39

Strangulation

Pinus strobus L. - Eastern white pine 8-39, 9-36

GENE PRESERVATION

1-55, 20-64

GEOGRAPHIC RACES & PROVENANCE TRIALS

1-20, 1-33, 1-49, 1-50, 1-93, 2-7, 2-16, 2-23, 2-25, 3-18, 3-49, 4-3,
5-11, 5-13, 7-24, 8-3, 10-8, 13-30, 13-71, 13-73, 16-59, 16-60, 16-61
1 6-64, 17-3, 17-33, 18-61 18-72, 19-35, 20-85

Abies Borisii-regis Mattf. - King Boris fir 10-69

Abies Ernesti Rehd. - Ernest fir 10-69

Abies firma Sieb. & Zucc. - Momi fir 10-69

Abies Fraseri (Pursh)Poir - Fraser fir 10-69

Abies grandis (Dougl.)Lindl. - Grand fir 10-69

Abies homolepis Sieb. & Zucc. - Nikko fir 10-69

Abies lasiocarpa (Hook)Nutt. - Rocky Mountain fir 10-69

Abies magnifica A. Murr. - California red fir 10-69

Abies Mariesii Mast. - Manes fir 10-69

Abies Nordmanniana (Steven)Spach. - Nordmann fir 10-69

Abies procera Rehd. - Noble fir 10-69

Abies sachalinensis Mast. - Saghalin fir 10-69

Abies Veitchii Lindl. - Veitch fir 10-69

Acer nigrum Michx. f. - Black maple 20-42

Acer rubrum L. - Red maple 1-89, 2-25

Acer saccharum Marsh. - Sugar maple 14-80, 16-25, 16-27, 17-41, 20-42

Betula alleghaniensis (Brit)Ashe. - Yellow Birch 15-2, 20-90

Betula papyrifera Marsh. - Paper birch 2-25, 5-12, 14-15

Castanea Mill. - Chestnut 1-58, 1-71

Castanea millissima Bl. - Chinese chestnut 1-58

Cryptomeria japonica (L.f.)D. Don - *Cryptomeria* 7-25

Eucalyptus L'Herit - Eucalypts 8-11

Juglans nigra L. - Black walnut 15-32, 19-47
Juniperus virginiana L. - Eastern red cedar 8-3
Larix Mill. - Larch 12-15, 13-71
Larix decidua Mill. - European larch 1-35, 1-40, 1-49, 1-83, 2-17,
5-11, 8-52, 10-74, 13-24, 13-67
Larix d. polonica (Racib.)Ostenf. & Syrach. 1-50
Larix eurolepis Henry. - Dunkeld larch 1-41, 1-49, 2-17, 10-74,
13-67
Larix Gmelini (Rupr.)Litvin. - Dahurian larch 1-49, 10-76
Larix laricina (Du Roi)K. Koch. - Tamarack 1-49 1-83, 10-75
Larix leptolepis (Sieb. & Zucc.)Gord. - Japanese larch 1-40, 1-49,
1-83, 8-6, 10-74, 13-30, 19-2
Larix lyallii Parl. - Subalpine larch 10-76
Larix occidentalis Nutt. - Western larch 1-83, 10-76
Larix olgensis Henry. - 1-50
Larix siberica Ledeb. - Siberian larch 5-11, 10-76
Liriodendron tulipifera L. - Yellow-poplar 8-3, 5-15, 5-27, 12-15
Picea Abies (L.)Karst. - Norway spruce 1-34, 1-40, 2-17, 5-11, 5-43,
5-55, 13-71, 16-61, 20-87
Picea bicolor (Maxim.)Mayr. - Alcock spruce 10-69
Picea engelmannii Parry - Engelmann spruce 10-69, 16-64
Picea glauca (Moench)Voss. - White spruce 2-18, 5-11, 5-55, 12-15,
12-24, 13-71, 14-39, 16-59, 16-64
Picea Glehnii (Fr. Schmidt)Mast - Saghalin spruce 5-55, 10-69
Picea jezoensis hondoensis (Mayr)Rehd. - 10-69
Picea koyamai Shiras - Japanese spruce 10-69
Picea mariana (Mill.)B.S.P. - Black spruce 5-55, 14-4, 16-64
Picea obovata Ledeb. - Siberian spruce 5-55, 10-69
Picea Omorika (Pancic)Purkyne - Serbian spruce 5-55, 10-69
Picea orientalis (L.)Link - Oriental spruce 5-55, 10-69

Picea polita (Sieb. & Zucc.)Carr. - Tigertail spruce 10-69
Picea pungens Engelm. - Blue spruce 5-12
Picea rubens Sarg. - Red spruce 2-18, 5-55, 14-4, 16-60
Picea sitchensis (Bong.)Carr. - Sitka spruce 16-64
Pietas aristata Engelm. - Bristlecone pine 10-68
Pinus banksiana Lamb. - Jack pine 5-11, 5-12, 5-13, 8-2, 13-71,
14-24, 19-35
Pinus contorta Dougl. - Lodgepole pine 5-23
Pinus edulis Engelm. - Pinyon 10-69
Pinus griffithii McClelland. - Himalayan blue pine 5-8, 10-69, 12-15
Pinus halepensis Mill. - Aleppo pine 10-69
Pinus heldreichii leucodermis (Ant.)Markgraff ex Fitschen - Heldreich
pine 10-68
Pinus monophylla Torr. & Frem. - Singleleaf pinyon 10-69
Pinus monticola Doug. - Western white pine 1-41, 5-8, 12-15
Pinus peuce Griseb. - Balkan white pine 2-18, 10-68
Pinus ponderosa Laws. - Ponderosa pine 5-24
Pinus resinosa Ait. - Red pine 1-41, 1-50, 2-18, 4-3, 5-11
Pinus rigida Mill. - Pitch pine 17-28
Pinus serotina Michx. - Pond pine 1-41, 1-99, 8-2
Pinus strobus L. - Eastern white pine 1-41, 2-18, 5-6, 5-11, 5-15,
8-3, 11-49, 12-15, 13-71
Pinus sylvestris L. - Scotch pine 1-34, 1-40, 2-17, 3-18, 3-23, 3-38,
5-3, 5-6, 5-11, 7-43, 10-8, 10-68, 11-28, 12-15, 13-67, 13-73, 16-1,
17-3, 17-37, 20-85
Pinus taeda L. - Loblolly pine 3-49, 5-15, 6-26, 20-144
Pinus thunbergiana Franco. - Japanese black pine 10-69
Pinus virginiana Mill. - Virginia pine 5-15, 6-30, 11-55, 12-15
Populus L. - Poplar 1-70
Populus deltoides Bartr. - Eastern cottonwood 14-80
Populus tremuloides Michx. - Quaking aspen 9-17

Prunus serotina Ehrh. - Black cherry 12-15, 15-53
Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 1-41, 1-62, 2-17,
5-21, 8-2, 10-68, 13-50, 17-33, 17-37
Quercus rubra L. - Red oak 5-15, 14-80
Robinia pseudoacacia L. - Black locust 3-35
Tsuga canadensis (L.)Carr. - Eastern hemlock 1-82, 2-7
Ulmus pumila L. - Siberian elm 18-75

HERMAPHRODITISM

Populus L. - Poplar 3-28
Populus deltoides Bartr. - Eastern cottonwood 3-28
Populus grandidentata Michx. - Bigtooth aspen 3-28
Populus Sieboldii Miq. - Japanese aspen 3-28
Populus tremuloides Michx. - Quaking aspen 3-28
P. tremuloides X *P. adenopoda* Maxim. - Chinese aspen 3-28

INBREEDING

1-64, 5-20, 6-25, 8-48, 12-21, 13-7, 18-72, 20-102
Acer campestre L. - Hedge maple 9-9
Acer platanoides L. - Norway maple 9-9
Acer Pseudoplatanus L. - Sycamore maple 9-9
Acer rubrum L. - Red maple 9-9
Acer saccharinum L. - Silver maple 6-33, 12-25, 17-72
Acer saccharum Marsh. - Sugar maple 9-8, 17-72
Alnus B. Ehrh. - Alder 1-64
Betula L. - Birch 1-64, 14-82
Caragana arborescens Lam. - Russian pea tree 9-9
Fagus sylvatica L. - European beech 9-9
Larix Mill. - Larch 12-52, 13-53,

Liriodendron tulipifera L. - Yellow-poplar 1-64, 9-9, 14-81
Picea engelmannii Parry - Engelmann spruce 16-63
Picea pungens Engelm. - Blue spruce 16-63, 16-64
Pinus coulteri D. Don - Coulter pine 12-20
Pinus ponderosa Laws. - Ponderosa pine 5-24
Pinus resinosa Ait. - Red pine 9-3, 9-13, 12-21
Pinus rigida Mill. - Pitch pine 17-25
Pinus strobus L. - Eastern white pine 5-7, 5-49
Populus L. - Poplar 8-38, 8-48
~~Prunus~~^{Prunus} L. - Cherry 15-40, 15-
Prunus serotina Ehrh. - Black cherry 14-79, 15-44, 15-60, 20-47,
20-65
Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 5-20
Tsuga canadensis (L.)Carr. - Eastern hemlock 1-64
Ulmus americana L. - American elm 14-79, 16-12

INSECTS & INSECT RESISTANCE

1-30, 2-29, 2-54, 3-35, 9-44, 11-41, 11-49, 13-72, 14-51, 14-59, 14-63, 14-64
20-109, 20-142
Agrilus anxius Gory - Bronze birch borer 14-19
Aphelenchoides app. - nematodes 17-12
Archips fumiferana (Clem.) - Spruce budwork 1-31, 10-56
Chermes abietis L. - Eastern spruce gall aphid 1-31, 5-12, 10-56
Chermes piceae Ratz. - Balsam woolly aphid 5-21
Chermes strobilobius Kalt. - Woolly larch aphid 7-42, 13-27
Cinara curvipes (Patch) - Balsam fir aphid 10-56
Coleophora laricella (Hbn.) - Larch casebearer 7-42, 19-9
Conophthorus coniperda (Sz.) - White pine cone beetle 9-35

Conotrachelus nenuphar - Plum curculio 20-47
Cylindrocopturus eatonii Buch. - Pine reproduction weevil 1-31, 11-41
Dendroctonus brevicomis Lec. - Western white pine beetle 1-31
Dendroctonus terebrans Oliv. - Black turpentine beetle 5-15
Dioryctria amatella Hulst. - Pitch moth 20-142
Eriophyes pini - Pine needle sheath mite 17-14
Fenusa pusilla (Lep.) (*pumila* Klug) - Birch leaf miner 14-19
Gnophothrips fuscus (Morgan) - Flower thrips 20-142
Hylurgopinus rufipes Eichh. - Elm bark beetle 1-27
Laspeyresia spp. - Cone insects 20-142
Leptoglossus corculus - Coreid bugs 20-142
Megacyllene robiniae (Forst.) - Locust borer 3-35
Pineus pinifoliae (Fitch) - Pine leaf aphid 18-5
Pissodes sitchensis (Hopk.) - Sitka spruce weevil 5-21
Pissodes strobi (Peck) - White-pine weevil 1-23, 1-30, 1-32, 1-33,
2-5, 2-29, 2-54, 5-26, 9-44, 9-51, 10-56, 11-41, 11-49, 13-72, 14-51,
14-59, 14-63, 14-64, 18-5, 20-109
Porthetria dispar (L.) - Gypsy moth 1-30, 18-68
Pristiphora erichsonii (Htg.) - Larch sawfly 7-42, 13-63, 18-70,
19-3, 19-9
Rhagoletis fausta (O.S.) - Black cherry fruitfly 20-47
Rhyacionia frustrana (Comst.) - Nantucket pine tip moth 7-5, 10-56,
11-55, 20-142
Rhyacionia buoliana (Schiff.) - European pine shoot moth 10-56
Tetraya bipunctata - Stink bugs 20-142

INOCULATION - DISEASES

2-8

Ceratocystis ulmi (Buism.) C. Mor. - Dutch elm disease 7-48
Cronartium ribicola Fisch. - White pine blister rust 3-8, 5-21,
5-46, 20-120, 20-147

Endothia parasitica (Murr.) - Chestnut blight 1-74, 2-8, 2-26, 3-5
Hypoxyton mammatum (Wahl.)Mill. - Hypoxyton canker 19-104
Septoria musiva Pk. - Canker fungus 19-110

INTERSPECIFIC HYBRIDIZATION

(See species list - includes natural and artificial hybrids)

INTRASPECIFIC HYBRIDIZATION

1-25, 1-65, 3-50, 5-3, 5-11

Acer rubrum L. - Red maple 6-33
Acer saccharinum L. - Silver maple 6-33
Acer saccharum Marsh. - Sugar maple 1-25
Betula L. - Birch 2-25
Castanea Mill. - Chestnut 6-21
Fagus sylvatica L. - European beech 7-18
Fraxinus L. - Ash 1-25, 6-34
Larix Mill. - Larch 1-83
Liriodendron tulipifera L. - Yellow-poplar 1-25, 15-15
Picea engelmannii Parry - Engelmann spruce 16-63
Picea glauca (Moench)Voss. - White spruce 5-57
Picea pungens Engelm. - Blue spruce 16-63
Pinus contorta Dougl. - Lodgepole pine 5-23, 7-18
Pinus palustris Mill. - Longleaf pine 3-52
Pinus ponderosa Laws. - Ponderosa pine 5-23
Pinus resinosa Ait. - Red pine 1-25, 5-11
Pinus strobus L. - Eastern white pine 1-25, 5-7, 5-49
Pinus sylvestris L. - Scotch pine 7-17
Populus grandidentata Michx. - Bigtooth aspen 19-97

Populus tremuloides Michx. - Quaking aspen 19-97
Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 7-18
Ulmus L. - Elm 7-48

IRRADIATION

1-84, 10-3, 10-40, 11-38, 11-52, 14-31, 14-49, 14-50

Acer saccharum Marsh. - Sugar maple 14-83
Betula alleghaniensis (Brit.)Ashe. - Yellow birch 14-83
Brassica oleracea L. - Cabbage mustard X *Brassica nigra* (L.)Koch. -
Black mustard 11-39
Castanea dentata (Marsh)Borkh. - American chestnut 14-81
Hordeum vulgare L. - Common barley 14-32
Liriodendron tulipifera L. - Yellow-poplar 14-79
Picea Abies (L.)Karst. - Norway spruce 1-84, 16-56
Picea glauca (Moench)Voss. - White spruce 14-31
Picea mariana (Mill.)B.S.P. - Black spruce 14-31
Picea sitchensis (Bong.)Carr. - Sitka spruce 16-50
Pinus L. - Pine 5-15, 11-39, 11-52
Pinus banksiana Lamb. - Jack pine 14-31, 16-56
Pinus densiflora Sieb & Zucc. - Japanese red pine 14-36
Pinus elliottii Engelm. - Slash pine 14-31, 16-50
Pinus palustris Mill. - Longleaf pine 14-31
Pinus resinosa Ait. - Red pine 14-31
Pinus rigida Mill. - Pitch pine 10-3, 11-40, 16-56
Pinus strobus L. - Eastern white pine 1-84, 11-40, 14-31, 16-56
Pinus sylvestris L. - Scotch pine 14-31, 16-56
Pinus thunbergiana Franco. - Japanese black pine 16-50
Populus tremuloides Michx. - Quaking aspen 14-79
Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 16-50

Quercus L. - Oak 10-3, 11-40, 11-52
Tsuga heterophylla (Raf.)Sarg. - Western hemlock 16-50
Ulmus americana L. - American elm 16-11

LAMMAS SHOOT DEVELOPMENT

Acer L. - Maple 11-22
Picea Abies (L.)Karst. - Norway spruce 8-28
Pinus banksiana Lamb. - Jack pine 17-18
Pinus nigra Arnold. - Austrian pine 11-36
Pinus resinosa Ait. - Red pine 8-29, 11-22, 17-20
Pinus strobus L. - Eastern white pine 8-28, 11-22
Pinus sylvestris L. - Scotch pine 11-21, 11-37, 17-9, 17-14
Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 11-22, 17-18
Quercus L. - Oak 11-22

MAMMAL & BIRD DAMAGE

Erothizon dorsatum dorsatum (L.) - Porcupine
Larix Mill. - Larch 13-4, 13-27
Picea Abies (L.)Karst. - Norway spruce 5-45
Pinus sylvestris L. - Scotch pine 3-18, 7-42
Peromyscus maniculatus gracilis (Le Conte) - Field mouse
Pinus sylvestris L. - Scotch pine 12-26
Pinicola enucleator - Pine grosbeak
Larix Mill. - Larch 13-4
Sphyrapicus varius - Sapsucker
Betula L. - Birch (European X American) 14-76
Tamiasciurus hudsonicus minnesota (Allen) - Red squirrel
Larix Mill. - Larch 7-42, 12-53, 13-3, 13-27
Picea Abies (L.)Karst. - Norway spruce 5-45

PARTHENOCARPY

Larix Mill. - Larch 1-83

PHOTOPERIODIC RESPONSE

Abies balsamea (L.)Mill. - Balsam fir 19-27

Juglans nigra L. - Black walnut 19-49

Larix Mill. - Larch 13-26

Larix laricina (Du Roi)K. Koch. - Tamarack 10-75

Liquidambar styraciflua L. - Sweetgum 14-87

Picea Abies (L.)Karst. - Norway spruce 8-15

Picea glauca (Moench)Voss. - White spruce 5-57

Pinus banksiana Lamb. - Jack pine 14-29

Pinus strobus L. - Eastern white pine 8-28

Pinus sylvestris L. - Scotch pine 1-82, 2-8, 7-44

Populus L. - Poplars 1-69

Populus deltoides Bartr. - Eastern cottonwood 2-8

Populus trichocarpa Torr. & Gray - Black cottonwood 1-86

Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 14-43

Tsuga canadensis (L.)Carr. - Eastern hemlock 1-82, 2-7, 2-24

PHOTOSYNTHETIC EFFICIENCY

5-58, 5-76, 16-34

Abies balsamea (L.)Mill. - Balsam fir 19-27

Chamaecyparis obtusa (Sieb. & Zucc.)Endl. - Hinoki-cedar 16-38

Cryptomeria japonica (L.f.)D. Don - Cryptomeria 16-38

Liquidambar styraciflua L. - Sweetgum 16-35

Mimulus cardinalis Dougl. - Monkey flower 19-31

Oxyria digyna (L.)Hill - Mountain-sorrel 19-31

Picea Abies (L.)Karst. - Norway spruce 5-60

Pinus L. - Pine 16-35
Pinus banksiana Lamb. - Jack pine 5-61
Pinus densiflora Sieb. & Zucc. - Japanese red pine 16-38
Pinus elliottii Engelm. - Slash pine 5-61
Pinus pinea L. - Italian stone pine 5-61
Pinus radiata D. Don - Monterey pine 5-61
Pinus strobus L. - Eastern white pine 5-60, 16-38, 19-33
Pinus taeda L. - Loblolly pine 5-60, 16-35, 16-38
Populus L. Poplar 5-60, 16-35
Pseudotsuga menziesii (Mirb.) Franco. - Douglas fir 5-60, 16-35, 19-33
Quercus rubra L. - Northern red oak 5-61
Quercus velutina Lam. - Black oak 5-61

PLOIDY - NATURAL AND INDUCED

1-67, 3-52, 5-12, 5-61, 6-22, 11-40, 16-9, 16-29, 17-28
Colchicine induced 1-83, 2-24, 5-9, 7-58, 16-9, 16-29, 17-28
Abies Mill. - Fir 14-30
Castanea Mill. - Chestnut 6-22, 7-58
Fraxinus americana L. - White ash 11-15, 14-85
Larix decidua Mill. - European larch 1-83, 2-24
Larix leptolepis (Seib. & Zucc.) Gord. - Japanese larch 1-83, 2-24
Nicotiana tabacum L. - Tobacco 16-29
Picea glauca (Moench) Voss. - White spruce 16-13
Pinus elliottii Engelm. - Slash pine 5-61
Pinus rigida Mill. - Pitch pine 17-28
Pinus rigitaeda X *P. taeda* L. - (Pitch X Loblolly) X Loblolly pine
17-28
Pinus strobus L. - Eastern white pine 5-9

Populus L. - Poplars 1-67, 3-52, 5-12
Populus alba L. - White poplar 16-32
Populus tremuloides Michx. - Quaking aspen 16-29
Prunus L. - Cherry 15-40, 15-51
Prunus serotina Ehrh. - Black cherry 15-39, 15-43, 15-44
Quercus L. - Oak 10-41
Solanum tuberosum L. - Cultivated potato 16-11, 16-29
Ulmus americana L. - American elm 14-79, 16-9
Zea Mays L. - Maize 16-29

POLLEN DEVELOPMENT

3-31, 5-63, 7-19, 8-5, 10-65, 13-14, 13-58, 16-44
Picea glauca (Moench)Voss. - White spruce 5-56, 16-16
Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 16-44
Tusga canadensis (L.)Carr. - Eastern hemlock 3-31
Ulmus L. - Elm 8-44
Ulmus americana L. - American elm 7-49

POLLEN HANDLING & STORAGE

2-26, 2-27, 3-49, 5-20, 5-63, 7-19, 7-29, 7-49, 9-9, 11-39, 17-68
Acer saccharum Marsh. - Sugar maple 14-85
Castanea Mill. - Chestnut 7-29
Picea A. Dietr. - Spruce 2-27
Pinus L. - Pine 2-27
Pinus densiflora Sieb. & Zucc. - Japanese red pine 5-63
Pinus nigra Arnold. - Austrian pine 5-63
Prunus serotina Ehrh. - Black cherry 20-48
Tsuga canadensis (L.)Carr. - Eastern hemlock 5-63

POLLUTION RESISTANCE

18-67, 19-87, 19-117, 20-130, 20-150

Lists of species resistant to salt spray and salt-contaminated soil
20-133, 20-134, 20-138

PROGENY TESTS

5-3, 5-11, 6-21, 7-19, 10-3, 19-12, 20-70, 20-100, 20-142

- Abies balsamea* (L.)Mill. - Balsam fir 5-11
- Acer saccharum* Marsh. - Sugar maple 8-3, 19-12
- Juglans nigra* L. - Black walnut 15-32
- Picea Abies* (L.)Karst. - Norway spruce 5-11
- Picea glauca* (Moench)Voss. - White spruce 5-11
- Picea mariana* (Mill.)B.S.P. - Black spruce 5-11
- Pinus banksiana* Lamb. - Jack pine 5-11
- Pinus contorta* Dougl. - Lodgepole pine 5-11
- Pinus elliottii* Engelm. - Slash pine 3-49
- Pinus lambertiana* Doug. - Sugar pine 5-21
- Pinus monticola* Doug. - Western white pine 5-21
- Pinus resinosa* Ait. - Red pine 5-11
- Pinus rigida* Mill. - Pitch pine 10-3
- Pinus strobus* L. - Eastern white pine 5-9
- Pinus sylvestris* L. - Scotch pine 5-11, 7-47
- Pinus taeda* L. - Loblolly pine 5-15
- Pinus virginiana* Mill. - Virginia pine 5-11
- Liriodendron tulipifera* L. - Yellow-poplar 15-12
- Quercus* L. - Oak 10-3

SEED HANDLING & STORAGE

6-23, 7-17

Prunus serotina Ehrh. - Black cherry 20-50

Taxodium distichum (L.)Rich. - Baldcypress 1-62

SEED LAWS AND SEED CERTIFICATION

1-39, 1-52, 2-12, 2-46, 3-79, 4-48, 5-11, 6-37, 7-11, 7-17, 8-53, 9-68,
10-67, 12-7, 15-88, 17-38, 17-62, 20-59

SEED ORCHARDS & SEED PRODUCTION AREAS

1-48, 1-53, 1-94, 7-14, 7-18, 8-21, 8-27, 9-53, 9-58, 9-65, 10-51, 10-53,
10-64, 11-56, 12-2, 12-12, 12-14, 12-16, 12-28, 12-29, 12-30, 12-32,
12-34, 12-42, 12-43, 12-44, 12-45, 12-54, 12-55, 12-56, 12-60, 13-68,
14-11, 15-40, 16-64, 17-28, 18-62, 20-52, 20-141

Clonal vs. Seedling Seed Orchards 9-56, 9-65, 10-51, 10-57, 10-64,
20-52

Abies Balsamea (L.)Mill. - Balsam fir 12-54

Castanea mollissima Bl. - Chinese chestnut 12-3

Cinchona ledgeriana - Cinchona 9-53

Juglans nigra L. - Black walnut 20-52

Larix decidua Mill. - European larch 8-23, 12-13

L. decidua X *L. leptolepis* - Dunkeld larch 7-17

Larix leptolepis (Sieb. & Zucc.)Gord. - Japanese larch 8-23, 12-13,
12-32

Picea Abies (L.)Karst. - Norway spruce 1-48, 12-13, 12-30

Picea glauca (Moench)Voss. - White spruce 8-23, 12-13, 12-34, 12-55

Picea pungens Engelm. - Blue spruce 16-64

Pinus echinata Mill. - Shortleaf pine 12-30

Pinus elliottii Engelm. - Slash pine 20-141

Pinus nigra Arnold. - Austrian pine 12-52

Pinus resinosa Ait. - Red pine 12-12, 12-55, 14-12

Pinus rigida Mill. - Pitch pine 17-28

Pinus strobus L. - Eastern white pine 8-23, 10-57, 12-5, 12-13, 12-43

Pinus sylvestris L. - Scotch pine 1-48, 7-18, 8-23, 12-7, 12-13, 12-16
Pinus taeda L. - Loblolly pine 12-44, 12-55, 20-141
 P. taeda X *P. rigida* 12-56, 17-28
Pinus virginiana Mill. - Virginia pine 11-56, 12-3, 12-42
Prunus serotina Ehrh. - Black cherry 15-40
Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 12-54
Robinia pseudoacacia L. - Black locust 12-2

SELECTION, INDIVIDUAL TREE (JUVENILE)

1-75, 2-7, 5-12, 8-33, 12-25, 13-73

Juvenile-Mature Correlations 1-49, 1-60, 2-7, 2-57, 5-77, 7-43,
7-46, 9-34, 11-34, 12-25, 12-49, 14-24, 14-78, 14-79, 14-82, 16-61,
20-105, 20-121

Disease Resistance

Castanea Mill. - Chestnut 2-8

Pinus lambertiana Doug. - Sugar pine 5-21

Pinus monticola Doug. - Western white pine 5-21, 12-49

Populus L. - Poplar (Hybrids) 12-25, 19-112, 20-5, 20-9, 20-10

Form 2-10, 11-31

Gum Yield

Pinus palustris Mill. - Longleaf pine 2-9

Insect Resistance

Pinus L. - Pine 12-49

Populus L. - Poplar (Hybrids) 12-25

Pollution Resistance

Pinus sylvestris L. - Scotch pine 19-87

Racial Variation

Populus deltoides Bartr. - Eastern cottonwood 2-8

Tsuga canadensis (L.)Carr. - Eastern hemlock 2-7

Sap-Sugar (Maple)

Acer saccharum Marsh. - Sugar maple 2-9, 11-18, 12-38

Vigor 12-25, 12-50

Larix decidua Mill. - European larch 12-25

Pinus banksiana Lamb. - Jack pine 14-24

Pinus resinosa Ait. - Red pine 2-9, 20-70

Pinus strobus L. - Eastern white pine 12-50

Pinus virginiana Mill. - Virginia pine 12-25

Populus L. - Poplar (Hybrids) 8-33, 12-25, 19-108, 20-12, 20-121

Prunus serotina Ehrh. - Black cherry 12-51

Wood Properties 1-60, 2-57

Picea Abies (L.)Karst. - Norway spruce 16-61

Pinus L. - Pine 9-34, 12-49

Populus tremuloides Michx. - Quaking aspen 9-33

SELECTION, INDIVIDUAL TREE (MATURE)

1-3, 1-21, 1-51, 1-52, 1-71, 1-83, 2-2, 2-9, 2-20, 3-49, 5-3, 5-11, 5-69,
6-8, 6-35, 7-16, 7-40, 12-43, 15-29, 18-61, 19-51, 20-69, 20-106

Abies amabilis (Dougl.)Forb. - White fir 5-21

Abies balsamea (L.)Mill. - Balsam fir 15-30

Acer rubrum L. - Red maple 6-35

Acer saccharinum L. - Silver maple 15-75

Acer saccharum Marsh. - Sugar maple 1-51, 1-57, 2-2, 8-3, 10-72, 11-8,
12-35, 15-72, 20-99

Betula alleghaniensis (Brit.)Ashe. - Yellow birch 15-30

Betula papyrifera Marsh. - Paper birch 15-30

Castanea Mill. - Chestnut 5-69, 7-31

Fraxinus americans L. - White ash 2-5, 6-35

Ginkgo biloba L. - Ginkgo 1-83
 Juglans nigra L. - Black walnut 15-30, 20-55, 20-64
 Larix Mill. - Larch 7-40, 8-12, 13-27
 Liriodendron tulipifera L. - Yellow-poplar 6-35, 15-30
 Picea Abies (L.)Karst. - Norway spruce 1
 Picea glauca (Moench)Voss. - White spruce 5-57
 Picea pungens Englem. - Blue spruce 1-23
 Pinus elliottii Engelm. - Slash pine 5-15, 8-3, 20-143
 Pinus monticola Doug. - Western white pine 8-3
 Pinus palustris Mill. - Longleaf pine 20-144
 Pinus strobus L. - Eastern white pine 1-23, 1-56, 2-5, 5-7, 5-46,
 10-53, 12-29, 19-51
 Pinus sylvestris L. - Scotch pine 1-23, 17-37
 Pinus taeda L. - Loblolly pine 1-23, 5-15, 20-143, 20-144
 Pinus virginiana Mill. - Virginia pine 11-56, 12-42
 Prunus serotina Ehrh. - Black cherry 2-5, 6-35, 15-30, 15-40
 Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 17-37
 Quercus rubra L. - Red oak 2-5
 Robinia pseudoacacia L. - Black locust 3-35
 Tilia americana L. - American basswood 15-30
 Tsuga canadensis (L.)Carr. - Eastern hemlock 2-5
 Ulmus americana L. - American elm 7-48
 Lists of selections in NEFTIC area (U.S. & Canada) - 1972 20-107, 20-108

SHORT ROTATION

18-39, 19-81, 19-112, 20-128

STAND IMPROVEMENT - SILVICULTURAL METHODS

1-56, 3-44, 3-48, 3-59, 3-63, 3-65, 4-6, 4-9, 4-47, 5-29, 18-2, 20-33

TEMPERATURE REQUIREMENTS (DORMANCY, CHILLING REQUIREMENTS, OPTIMUM GROWTH)

Acer saccharum Marsh. - Sugar maple 11-14

Juglans nigra L. - Black walnut 19-49

Liquidambar styraciflua L. - Sweetgum 14-87

Picea Abies (L.)Karst. - Norway spruce 8-20

Picea glauca (Moench)Voss. - White spruce 5-57

Pinus sylvestris L. - Scotch pine 2-7, 7-44

Populus L. - Poplars 1-69, 15-68

Tsuga canadensis (L.)Carr. - Eastern hemlock 1-82, 2-7, 2-24

TISSUE & CELL CULTURE

7-3, 7-58, 16-44

Castanea Mill. - Chestnut 7-58

Castanea crenata Sieb. & Zucc. - Japanese chestnut 7-30

Castanea dentata (Marsh)Borkh. - American chestnut 7-30

Castanea mollissima Bl. - Chinese chestnut 7-30

Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 16-44

Populus L. - Aspens 14-78

VEGETATIVE PROPAGATION

1-41, 1-47, 1-62, 1-83, 2-23, 5-7, 5-11, 5-12, 6-3, 7-19, 7-50, 7-52,
10-42, 10-77, 11-12, 13-12, 16-6, 18-69

ROOTING

- Abies concolor* (Gord.)Engelm. - Colorado fir 1-43
- Acer* L. - Maple 6-7
- Acer palmatum* Thunb. - Japanese maple 6-6
- Acer rubrum* L. - Red maple 1-43
- Acer saccharinum* L. - Silver maple 15-77
- Acer saccharum* Marsh. - Sugar maple 1-44, 1-60, 11-13
- Chamaecyparis thyoides* (L.)B.S.P. - Atlantic white-cedar 1-43
- Cornus florida* L. - Flowering dogwood 6-4
- Cryptomeria* 7-26
- Cupressocyparis Leylandii* (A. B. Jacks)M. L. Green - Leyland cypress
7-18
- Eucalypts trauti* - Eucalypts 8-11
- Ginkgo biloba* L. - Ginkgo 1-43
- Gleditsia triacanthos* L. - Honeylocust 1-44
- Juniperus virginiana* L. - Eastern redcedar 1-43
- Larix* Mill. - Larch 2-23, 16-6
- Larix decidua* Mill. - European larch 7-33, 10-77
- Larix eurolepis* Henry. - Dunkeld larch 7-33
- Larix europaea* DC. - European larch 7-32
- Larix Gmelini* (Rupr.)Litvin. - Dahurian larch 7-33
- Larix Kaempferi* Sarg. - Japanese larch 7-32
- Larix laricina* (Du Roi)K. Koch. - American larch 7-33
- Larix leptolepis* (Sieb. & Zucc.)Gord. - Japanese larch 7-33
- Larix sibirica* Ledeb. - Siberian larch 7-32
- Liriodendron tulipifera* L. - Yellow-poplar 6-4
- Metasequoia* 6-7
- Picea abies* (L)Karst. - Norway spruce 1-42, 6-7
- Picea glauca* (Moench)Voss. - White spruce 5-56
- Picea mariana* (Mill.)B.S.P. - Black spruce 3-13

Picea pungens Engelm. - Blue spruce 1-43
Pinus ponderosa Laws. - Ponderosa pine 1-42
Pinus radiata D. Don - Monterey pine 1-42
Pinus resinosa Ait. - Red pine 6-7
Pinus rigida Mill. - Pitch pine 17-26
Pinus strobus L. - Eastern white pine 1-42, 1-60, 2-25, 5-9, 5-51,
6-7, 12-26
Populus L. - Poplars 7-19, 8-9, 13-9, 20-5, 20-17, 20-24
Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 1-42, 5-20
Robinia pseudoacacia L. - Black locust 1-44
Sequoia sempervirens (D. Don)Endl. - Redwood 20-25
Thuja occidentalis L. - Northern white-cedar 1-43
Tsuga canadensis (L.)Carr. - Eastern hemlock 1-42
Tsuga caroliniana Engelm. - Carolina hemlock 1-43
Ulmus L. - Elm 7-19
Ulmus americana L. - American elm 1-44
Ulmus carpinifolia Gleditsch. - Smooth-leaved elm 1-44

GRAFTING (INCLUDING BUDDING)

Acer saccharinum L. - Silver maple 11-20, 15-79
Acer saccharum Marsh. - Sugar maple 11-12, 11-20, 12-37
Acer saccharum var. *monumentale* (Temple)Rehd. - Sentinel maple 1-45
Castanea Mill. - Chestnut 1-73, 3-3
Castanea pumila Mill. - Allegheny chinquapin 1-73
Juglans nigra L. - Black walnut 20-56
Larix decidua Mill. - European larch 8-24
Larix leptolepis (Sieb. & Zucc.)Gord. - Japanese larch 7-19, 8-24

Picea Abies (L.)Karst. - Norway spruce 5-56
Picea glauca (Moench)Voss. - White spruce 5-56, 8-25
Picea mariana (Mill.)B.S.P. - Black spruce 5-56
Pinus cembra L. - Swiss stone pine 12-7
Pinus echinata Mill. - Shortleaf pine 1-45
Pinus resinosa Ait. - Red pine 5-11, 12-59
Pinus rigida Mill. - Pitch pine 17-27
Pinus strobus L. - Eastern white pine 3-7, 5-7, 5-9, 5-50, 8-25, 12-26,
12-52, 12-59, 14-66, 20-119
Pinus sylvestris L. - Scotch pine 7-19, 8-25, 12-7
Pinus virginiana Mill. - Virginia pine 12-42
Prunus serotina Ehrh. - Black cherry 15-39
Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir 5-20, 7-19
Quercus Suber L. - Cork oak 1-45
Ulmus americana L. - American elm 7-50
Ulmus carpinifolia Gleditsch. - Smooth-leaved elm 7-51
Ulmus parvifolia Jacq. - Chinese elm 7-51

INARCHING

Castanea Mill. - Chestnut 1-45, 1-74, 1-85, 9-14

AIR- LAYERING

Acer saccharinum L. - Silver maple 15-82
Acer saccharum Marsh. - Sugar maple 11-12
Larix leptolepis (Sieb. & Zucc.)Gord. - Japanese larch 1-45
Picea Abies (L.)Karst. - Norway spruce 5-52
Picea pungens Engelm. - Blue spruce 5-52
Pinus resinosa Ait. - Red pine 5-11
Pinus strobus L. - Eastern white pine 5-7, 5-9, 5-51

HETEROPLASTIC GRAFTING

10-46

Abies Mill. - Fir 7-52

Acer L. - Maple 7-52

Betula L. - Birch 10-46, 14-82

Castanea Mill. - Chestnut 1-87, 3-3, 10-46

Cinchona ledgeriana - *Cinchona* 1-60

Eucalyptus L'Herit. - Eucalypts 8-11

Fraxinus L. - Ash 7-52

Malus L. - Apple 12-8

Picea A. Dietr. - Spruce 7-52, 12-7

Pinus L. - Pine 3-7, 3-12, 10-46, 12-7, 12-8, 12-22, 12-26, 14-64,
17-27

Ulmus L. - Elm 7-51

CYCLOPHYSIS, PERIPHYSIS, TOPOPHYSIS

1-42, 3-57, 7-58, 10-42, 10-61, 19-46, 20-23, 20-24

WITCHES BROOM FORMATION

Pinus mugo Turra. - Swiss mountain pine 17-14

Pinus sylvestris L. - Scotch pine 17-12

Pinus virginiana Mill. - Virginia pine 17-14

VARIATION

Acer L. - Maple 2-24, 20-39

Acer saccharum Marsh. - Sugar maple

Bark 20-40

Buds |

Flowers 20-40
Leaves 20-40
Sap sugar concentration 1-51, 1-57, 2-9, 5-12, 8-3, 10-72, 11-8,
11-58, 12-35, 16-25, 19-12
Sap volume 1-51, 5-12, 10-72
Vigor 1-51, 1-52
Acer nigrum Michx. f. - Black maple
Bark 20-40
Buds 20-40
Flowers 20-40
Leaves 20-40
Betula L. - Birch 2-24, 5-12, 9-25, 15-2
Betula alleghaniensis (Brit.)Ashe. - Yellow birch
Growth cessation 20-91
Juvenile growth 20-91
Leaf flushing 20-91, 20-103
Betula mandshurica japonica (Miq.)Rehd. -
Growth cessation 20-97
Betula Maximowicziana Reg.
Growth cessation 20-97
Castanea Mill. - Chestnut
Disease resistance (Chemical analysis) 3-4, 7-30, 14-81
Eucalyptus L'Herit - Eucalypts
Cold injury 8-11
Ginkgo bioloba L. - Ginkgo
Form (Columnar types) 1-83
Gleditsia triacanthos L. - Honeylocust 5-16

Juglans nigra L. - Black walnut

Apical dominance 14-83, 15-32, 15-33

Leaf flushing 19-47, 20-103

Nut quality 5-16, 14-83

Wood grain 5-16

Juniperus virginiana L. - Eastern redcedar

Needle color 8-3

Larix decidua Mill. - European larch

Form 13-25

Specific gravity 13-25

Larix leptolepis (Sieb. & Zucc.)Gord. - Japanese larch

Insect resistance 19-9

Needle color 8-7

Needle retention 8-7

Liriodendron tulipifera L. - Yellow-poplar

Specific gravity 15-7

Picea A. Dietr. - Spruce 5-12, 16-62

Picea Abies (L.)Karst. - Norway spruce

Cone production 16-65

Fiber length 16-61

Lammas growth 8-14, 16-61

Specific gravity 16-61

Picea mariana (Mill.)B.S.P. - Black spruce

Specific gravity 16-62

Picea sitchensis (Bong.)Carr. - Sitka spruce

Insect resistance 5-21

Pinus L. - Pine 2-24

Pinus banksiana Lamb. - Jack pine

Cone characteristics 5-12, 19-35

Lammas growth 17-18

Pinus echinata Mill. - Shortleaf pine

Disease resistance 5-15

Pinus elliottii Engel m. - Slash pine

Disease resistance 5-15

Form 3-49, 5-15

Gum yield 3-51, 5-15, 8-3, 20-143

Insect resistance 5-15

Specific gravity 6-9

Vigor 5-15

Pinus palustris Mill. - Longleaf pine

Disease resistance 20-14

Gum yield 2-9, 5-15

Juvenile growth 5-15, 8-5

Pinus peuce Griseb. - Balkan white pine

Disease resistance 5-26

Pinus resinosa Ait. - Red pine

Lammas growth 11-28

Pinus strobus L. - Eastern white pine

Disease resistance 8-3

Flowering 10-52

Insect resistance 5-9, 9-48, 11-41, 13-72, 14-64, 20-109

Rooting ability 5-51

Vigor 1-56, 5-9, 19-51

Pinus sylvestris L. - Scotch pine

Fiber length 16-1

Lammas growth 17-9, 17-14

Needle color 3-22, 3-23, 3-41, 7-43, 17-6

Needle length 17-6

Specific gravity 16-1

Pinus taeda L. - Loblolly pine

Disease resistance 20-144

Drought resistance 5-17

Form 5-15

Specific gravity 5-16

Vigor 5-15

Populus L. - Poplar 1-69, 2-24, 5-12, 8-35, 9-17, 20-11

"Aspens"

Fiber length 10-25, 14-77

Rooting ability 5-26

Specific gravity 9-17, 9-33, 10-25, 14-77, 19-60

Vigor 14-77

Populus deltoides Bartr. - Eastern cottonwood

Fiber length 3-33

Specific gravity 3-33

Populus tricarpa Torr. & Gray - Black cottonwood

Fiber length 3-33, 5-21

Specific gravity 3-33, 5-21

Pseudotsuga menziesii (Mirb.)Franco. - Douglas-fir

Lammas growth 17-18

Needle color 1-62

Quercus L. - Oak 2-24

Tsuga canadensis (L.)Carr. - Eastern hemlock 2-24

Tsuga heterophylla (Raf.)Sarg. - Western hemlock 5-21

Ulmus L. - Elm 5-12, 18-72

Wood quality (General) 2-34