APPENDIX G
TREE SPECIES FOR NEW YORK STATE

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Table G.1
Trees Suitable for Landscape and Conservation Plantings in New York

TREE SIZE:

Large Sized Trees (75'+) - Trees that exceed this height at maturity.

Medium Sized Trees (35'- 75') - Trees in this height range at maturity.

Small Sized Trees (15'- 35') - Trees relatively low at maturity.

VAR; (x) = varieties of the species are available for various uses.

FOLIAGE:

E = evergreen

c = colorful in fall

l = lustrous; shiny

D = deciduous

d = dense

u = unusual leaves

f = fine textured

SITE TOLERANCE:

cold = hardy in zones 2 and 3 (northeastern mountains)

wet = tolerant of moderately well to somewhat poorly drained soils.

dry = tolerant of sandy, gravelly, excessively drained soils.

shade = will tolerate some shady sites.

sea = trees which may tolerate seaside conditions.

city = trees that withstand usual city conditions.

PEST:

F = usually free S = susceptible

FEATURES:

Habit = general shape of open grown plants.

Bo - broad open (wide)

Co - columnar

FEATURES: (cont'd)

Ho - horizontal branching

Na - narrow

Op - open

Ov - ovoid/oblong

Pe - pendulous

Py - pyramidal

Ro - round

S - spreading

Up - upright

Wo - wide/open

BRK; (x) = bark has interesting characteristics of color, texture or form.

FLR; (x) = flowers are colorful and interesting.

f = fragrant;

s = showy;

u = unusual shape.

FRU; (x) = fruits are interesting and/or edible.

LVS; (x) = leaves have attractive color and/or unusual shape.

USES:

WIND; (x) = suitable for windbreaks and screening.

SHD; (x) = suitable as lawn shade trees.

STRT; (x) = trees often selected for street planting.

WILD; F/c = trees offering food and cover to wildlife.

F = trees providing food from fruits.

W/c = trees offering winter cover.

BARR; (x) = trees which can be used as a barrier to some traffic.

ORN; (x) = trees whose main value is ornamental.

Table G.1 (cont'd)
Trees Suitable for Landscape and Conservation Plantings in New York

A. LARGE SIZED TREES (75 ft.+)

1. DECIDUOUS SPECIES	HEIGHT	VAR	FOLIAGE	SITE TOLERANCE: COLD	WET	DRY	SHADE	SEA	CITY	PEST	FEATURES: HABIT	BRK	FLR	FRU	LVS	USES: WIND	SHDE	STRT	WILD	BARR	ORN
BEECH, EUROPEAN Fagus sylvatica	90'	X	D,c,d,l								Py	X			X		X				
BIRCH, PAPER Betula papyrifera	90'		D,c	X							Py	X			X						X
BIRCH, RIVER Betula nigra	90'		D,c		X						Py	X			X						
CHERRY, BLACK Prunus serotina	90'	X	D,d,l	X				X			S	X	X	X					F		X
GINKGO Ginkgo biloba	120'		D,c,u						X	F	Wo				X		X	X			
GUM, BLACK TUPELO Nyssa sylvatica	90'		D,c,d,l		X			X			Py				X						X
HICKORY, PIGNUT Carya glabra	120'		D,c			X					Ro				X				F		X
HICKORY, SHAGBARK Carya ovata	120'	X	D,c								Na/Up	X			X				F		X
HONEYLOCUST [1] Gleditsia spp.	135'	X	D,c,u			X			X	F	Bo						X	X			
JAPANESE ZELKOVA Zelkova serrata	90'		D,c		Substitute for American Elm						Ro				X		X				
KATSURA TREE Cercidiphyllum japonicum	60-100'		D,c,u							F	Ro				X		X				
LINDEN, LITTLE-LEAF Tilia cordata	90'	X	D,d	X					X		Py		X	X			X	X			
LONDON PLANE TREE X Platanus acerifolia	100'		D								S	X			X		X				
MAPLE, RED Acer rubrum	120'	X	D,c	X	X						Ro	X	X		X	X	X				
MAPLE, SUGAR Acer saccharum	120'	X	D,c	X							Ov				X		X	X			
OAK, WHITE Quercus alba	90'		D,c								Ro/S				X		X		F		X
POPLAR, HYBRID [2] X Populus	90'	X	D								varies					X	X				
POPLAR, WHITE Populus alba	90'	X	D,c,u	X		X		X			S		X		X						X
SWEET-GUM Liquidambar styraciflua	125'	X	D,c,u		X					F	Py				X		X	X			X

Table G.1 (cont'd)
Trees Suitable for Landscape and Conservation Plantings in New York

A. LARGE SIZED TREES (75 ft.+)

2. EVERGREEN SPECIES	HEIGHT	VAR	FOLIAGE	SITE TOLERANCE: COLD	WET	DRY	SHADE	SEA	CITY	PEST	FEATURES: HABIT	BRK	FLR	FRU	LVS	USES: WIND	SHDE	STRT	WILD	BARR	ORN
CEDAR, EASTERN RED Juniperus virginiana	90'	X	E,d	X		X		X		F	Py	X		X		X			WC		
FIR, DOUGLAS Pseudotsuga menziesii	300'	X	E,d								Py			X		X			WC		X
FIR, WHITE Abies concolor	120'	X	E,c								Py				X	X			WC		
HEMLOCK, CANADA Tsuga canadensis	90'	X	E,d	X							Py					X			WC		X
LARCH, EUROPEAN Larix decidua	100'	X	D,c	X							Py			X							X
PINE, AUSTRIAN Pinus nigra	90'	X	E					X			Py					X			WC		X
PINE, EASTERN WHITE Pinus strobus	100-150'	X	E	X							Ro/Py					X			WC		X
PINE, JAPANESE BLACK Pinus thunbergii	90'		E					X			S								WC		X
SPRUCE, COLORADO Picea pungens	100'	X	E,c,d	X				X		S	Py				X	X			WC		X
SPRUCE, NORWAY Picea abies	150'	X	E,d	X							Py			X		X			WC		
SPRUCE, SERBIAN Picea omorika	90'		E,c,d								Py				X	X			WC		X
SPRUCE, WHITE Picea glauca	90'	X	E	X							Py				X	X			WC		X

[1] **Thornless, seedless cultivars recommended**
[2] **Select male, non-root suckering, disease resistant cultivars**

Note: It is not recommended to combine Colorado Blue Spruce or any other spruce with Douglas Fir in the same landscape design. Douglas Fir is an alternate host for the Cooley Spruce Gall Aphid.

Table G.1 (cont'd)
Trees Suitable for Landscape and Conservation Plantings in New York

B. MEDIUM SIZED TREES (35'-75')

1. DECIDUOUS SPECIES	HEIGHT	VAR	FOLIAGE	SITE TOLERANCE: COLD	WET	DRY	SHADE	SEA	CITY	PEST	FEATURES: HABIT	BRK	FLR	FRU	LVS	USES: WIND	SHDE	STRT	WILD	BARR	ORN
ALDER, EUROPEAN Alnus glutinosa	75'		D	X	X						Ov					X					
ALDERS Alnus spp.	60'-75'	X	D,d	X	X					S	Ro			X		X					
BIRCH, SWEET Betula lenta	75'		D,c	X							Py	X			X		X				X
CHERRY, EUROPEAN BIRD Prunus padus	45'	X	D,u	X							Op		X,f	X					F		
CHERRY, PIN [1] Prunus pensylvanica	36'		D,c,f	X		X	X				Op	X	X	X	X				F		X
CHERRY, SARGENT Prunus sargentii	75'	X	D,c,d								Up	X	X				X	X	F		X
CHESTNUT, CHINESE Castanea mollissima	60'		D,c,d,l								Ro				X				F		
CHOKECHERRY, AMUR Prunus maackii	45'		D,d	X							Ro	X	X						F		X
CRAB APPLE, SIBERIAN Malus baccata	50'	X	D,d	X						S	Na		X,f	X					F		X
CRIMEAN LINDEN X Tilia euchlora	60'	X	D,d,l								Pe		X,f				X	X			
DOGWOOD, FLOWERING Cornus florida	40'	X	D,c,d,l							F	Ho	X	X,u	X	X			X			X
ELM, SIBERIAN Ulmus pumila	75'	X	D,f			X					Ro/OpF					X					
HAWTHORN, COCKSPUR Crataegus crus-galli	36'	X	D,d,l			X				S	Ro/S		X	X	X				F	X	X
HOLLY, AMERICAN Ilex opaca	45'	X	E,d,u					X		F	Py			X	X				WC		X
HORNBEAM, AMERICAN Carpinus caroliniana	36'	X	D,c,d	X						F	Ro	X		X	X		X	X	F		
HORNBEAM, EUROPEAN Carpinus betulus	60'	X	D,d								Py				X			X		X	
HORNBEAM, HOP Ostrya virginiana	60'		D,d							F	Py			X	X				F	X	X

Table G.1 (cont'd)
Trees Suitable for Landscape and Conservation Plantings in New York

B. MEDIUM SIZED TREES (35'-75')

1. DECIDUOUS SPECIES[2]	HEIGHT	VAR	FOLIAGE	SITE TOLERANCE: COLD	WET	DRY	SHADE	SEA	CITY	PEST	FEATURES: HABIT	BRK	FLR	FRU	LVS	USES: WIND	SHDE	STRT	WILD	BARR	ORN
JAPANESE PAGODA TREE Sophora japonica	75'	X	D			X				F	Ro	X	X				X	X			X
MAPLE, STRIPED Acer pensylranicum	36'	X	D,u	X			X				Op	X			X						X
MOUNTAIN-ASH, EUROPEAN Sorbus aucuparia	45'	X	D							S	S		X	X	X				F		X
MOUNTAIN-ASH, KOREAN Sorbus alnifolia	60'	X	D,d								Py/Ro	X	X	X	X						X
MULBERRY, WHITE Morus alba	45'	X	D,d,u			X		X			Ro			X	X				F		
OAK, RED Quercus borealis	75'		D,d,l	X					X		Ro			X	X		X	X	F		
OAK, SWAMP WHITE Quercus bicolor	60'		D,d	X	X						Na/Ro				X		X		F		
OAK, WILLOW Quercus phellos	50'		D,f								Ro							X			X
POPLAR, SIMON Populus simonii	50'	X	D,d	X							Na					X					X
REDBUD, EASTERN Cercis canadensis	36'	X	D,c,u								Wo		X		X						X
SASSAFRAS Sassafras albidum	60'		D,u								So	X		X	X						X
SERVICEBERRY Amelanchier spp.	25'-60'		D,c				X	X		S	S	X	X	X	X				F		X
SORREL TREE Oxydendrum arboreum	75'		D,c,d,l								Py		X	X	X						X
WILLOW, THURLOW WEEPING X Salix elegantissima	40'		D,f		X					S	Pe										X
WILLOW, WHITE Salix alba	75'	X	D	X	X						Up	Colored winter twigs									X
YELLOW-WOOD, AMERICAN Cladrastis lutea	50'	X	D,c,d	X							Ro	X	X		X						X

[1] Spreads rapidly by root suckers
[2] Spreads rapidly by root suckers, do not plant near Pine Barrens ecosystems

Table G.1 (cont'd)
Trees Suitable for Landscape and Conservation Plantings in New York

B. MEDIUM SIZED TREES (35'-75')

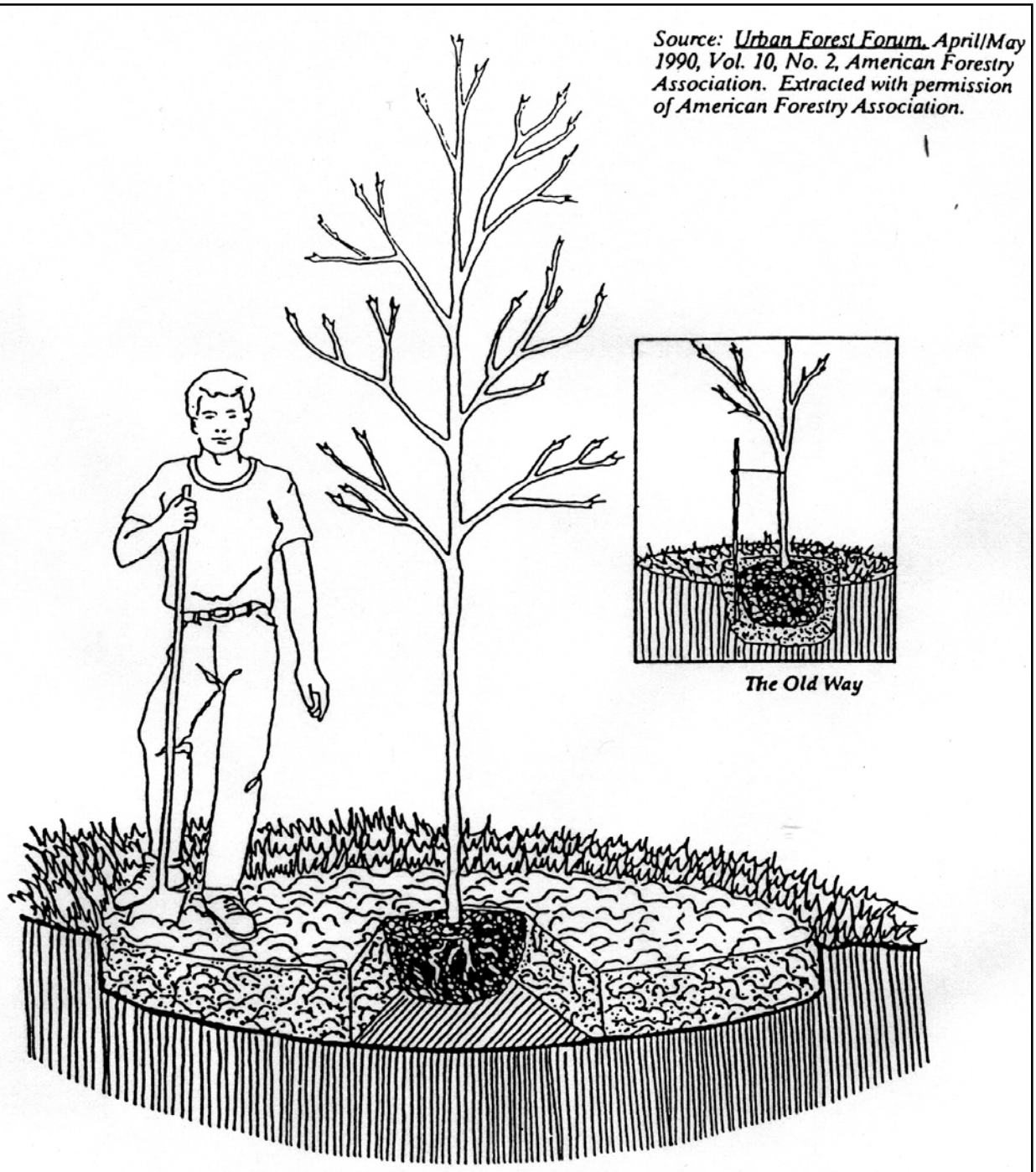
2. EVERGREEN SPECIES	HEIGHT	VAR	FOLIAGE	SITE TOLERANCE: COLD	WET	DRY	SHADE	SEA	CITY	PEST	FEATURES: HABIT	BRK	FLR	FRU	LVS	USES: WIND	SHDE	STRT	WILD	BARR	ORN
ARBORVITAE, AMERICAN Thuja occidentalis	60'	X	E,u	X	X		X	X			Co					X			WC		X
FIR, KOREAN Abies koreana	50'		E,d								Py				X	X			WC		X
FIR, VEITCH Abies veitchii	75'		E,c	X							Py				X	X			WC		
HEMLOCK, CAROLINA Tsuga caroliniana	75'		E,d						X		Py/Pe					X	X		WC	X	
PINE, JACK Pinus banksiana	75'		E	X		X					Bo								WC		
PINE, PITCH Pinus rigida	75'		E			X					Op								WC		
PINE, RED Pinus resinosa	75'		E	X		X					Py					X			WC		
PINE, SCOTCH Pinus sylvestris	75'	X	E	X				X			Op/Py	X				X			WC		
PINE, SWISS STONE Pinus cembra	75'		E,d	X							PyS								WC		X
SPRUCE, BLACK	50'		E,d	X	X		X				Co					X			WC		
SPRUCE, BLACK HILLS	75'		E,d	X		X				F	Co					X			WC		

Table G.1 (cont'd)
Trees Suitable for Landscape and Conservation Plantings in New York

C. SMALL SIZED TREES (15'-35')

1. DECIDUOUS SPECIES	HEIGHT	VAR	FOLIAGE	SITE TOLERANCE: COLD	WET	DRY	SHADE	SEA	CITY	PEST	FEATURES: HABIT	BRK	FLR	FRU	LVS	USES: WIND	SHDE	STRT	WILD	BARR	ORN
BIRCH, GRAY Betula populifolia	30'		D	X		X				S	several stems	X			X						X
BLACKHAW Viburnum prunifolium	30'		D,c,1	X									X	X	X	X			F	X	
CHERRY, CORNELIAN Cornus mas	24'	X	D,1							F	Ro		X	X	X				F		
CHERRY, SOUR Prunus cerasus	30'	X	D	X							Ro		X	X					F		X
CORK TREE, AMUR Phellodendron amurense	30'		D	X							Wo	X		X	X						
CRABAPPLES Malus spp	15'-30'		D	X						S	Ro		X,s	X				X	F		X
DOGWOOD, JAPANESE Cornus kousa	20'	X	D,d,1								Ho		X,s	X	X						X
HAWTHORNS Crataegus spp	15'-30	X	D,d	X		X				S	Ro/thorny		X	X	X	X			F	X	
LABURNUM SCOTCH Laburnum alpinum	30'	X	D								U		X,u			X					
LILAC, JAPANESE TREE Syringa amurensis japonica	30'		D,coarse									X	X,u			X					X
MAPLE, AMUR Acer ginnala	20'	X	D,c,d,	X			X				Up/Ro		X,f	X	X	X					X
MAPLE, MOUNTAIN Acer spicatum	25'		D,coarse	X			X				Ov			X	X						X
MOUNTAIN-ASH, SHOWY Sorbus decora	30'	X	D	X						S	shrubby		X	X							X
NANNYBERRY Viburnum lentago	30'		D,c,1	X			X				dense/ shrubby		X	X	X	X			F		X
RHODODENDRON, ROSEBAY Rhododendron maximum	12'-36'	X	E	X			X				Ro		X								X
SEA-BUCKTHORN, COMMON Hippophae rhamnoides	30'			X					X		Ro/o		X	X	X						X

Figure G.1
New Tree Planting Procedure



The new method of tree planting will result in better survival and growth than the old method. Grass competition and soil compaction are two of the most common factors in poor performance. The New Method: Prepare a planting area five times the diameter of the root ball or container. Use a rototiller and/or spades to loosen and mix the soil to a depth of about 12 inches. Organic matter (well decomposed) can be added. Dig a hole in the center to set the tree, so that the root ball will rest on solid ground. Backfill around the root area, pressing the soil but not packing it. Mulch the entire prepared area with 2 to 4 inches of bark, wood chips, decomposed sawdust, or leaves. Reference the article for a full explanation.

Table G.2
Susceptibility of Tree Species to Compaction[1]

Resistant:

Box elder……	*Acer negundo*	Willows……	*Salix spp.*
Green ash……..	*Fraxinus pennsylvanica*	Honey locust……	*Gleditsia triacanthos*
Red elm……..	*Ulmus rubra*	Eastern cottonwood…….	*Populus deltoides*
Hawthornes……	*Crataegus spp.*	Swamp white oak…….	*Quercus bicolor*
Bur oak……..	*Quercus macrocarpa*	Hophornbeam……	*Ostrya virginiana*
Northern white cedar….	*Thuja occidentalis*		

Intermediate:

Red maple…….	*Acer rubrum*	Sweetgum…….	*Liquidambar styraciflua*
Silver maple……..	*Acer saccharinum*	Norway maple…….	*Acer platanoides*
Hackberry…….	*Celtis occidentalis*	Shagbark hickory…….	*Carya ovata*
Black gum……	*Nyssa sylvatica*	London plane……..	*Platanus x hybrida*
Red oak……	*Quercus rubra*	Pin oak…….	*Quercus palustris*
Basswood…….	*Tilia americana*		

Susceptible:

Sugar maple…….	*Acer saccharum*	Austrian Pine……	*Pinus nigra*
White pine……	*Pinus strobus*	White ash…….	*Fraxinus americana*
Blue spruce……..	*Picea pungens*	Paper birch……..	*Betula papyrifera*
White oak……	*Quercus alba*	Moutain ash…….	*Sorbus aucuparia*
Red pine……..	*Pinus resinosa*	Japanese maple……	*Acer palmatum*

[1] If a tree species does not appear on the list, insufficient information is available to rate it for this purpose.

Table G.3
Size and Weight of Earth Ball Required to Transplant Wild Stock

Shade Trees (Maple, Ash, Oak, Birch, etc.)			Small Trees & Shrubs (Crabapple, Thornapple, Viburnum, Dogwood, etc.)		
Caliper[1] (Inches)	Minimum Diameter Ball (Inches)	Weight of Ball (lbs.)	Up to 6 ft. Height — 6 ft. and Caliper[1]	Minimum Diameter Ball (Inches)	Weight of Ball (lbs.)
1/2	14	88	2	12	55
3/4	16	130	3	14	88
1	18	186	4	16	130
1-1/4	20	227	5	18	186
1-1/2	22	302	3/4	18	186
1-3/4	24	390	1	20	227
2	28	621	1-1/2	22	302
3	32	836	1-3/4	24	390
3-1/2	38	1,400	2	28	621
4	42	1,887	2-1/2	32	836
			3	38	1,400

[1]Caliper is a diameter measurement of trees at a height of 6 inches above the ground.

(American Standards for Nursery Stock)