TREES FOREVER
Planting a better tomorrow™

Recommended Tree Species for Windbreaks

Tree Species (Common Name)	Scientific Name	Susceptibility to Storm Damage*	Tolerance to Flooding & Waterlogged Soils**	Hardiness Zone	Mature Height (ft)	Mature Spread (ft)
Arborvitae	*Thuja occidentalis*	intermediate	intermediate	3 to 7	25 to 40	10 to 12
Balsam fir	*Abies balsamea*	intermediate	intolerant	3 to 5	30 to 50	20 to 30
Douglas fir	*Pseudotsuga menziesii*	intermediate	intolerant	4 to 6	40 to 60	15 to 25
Eastern Hemlock	*Tsuga canadensis*	tolerant	intolerant	3b to 7	50 to 70	30
Eastern red cedar	*Juniperus virginiana*	intermediate	intolerant	3b to 9	40 to 50	10 to 20
Korean pine	*Pinus koraiensis*	intermediate	intolerant	4 to 7	30 to 50	20 to 40
Limber pine	*Pinus flexilis*	tolerant	intolerant	4 to 7	30 to 50	20 to 40
Mugo pine	*Pinus mugo*	intermediate	intolerant	3 to 7	10 to 20	15 to 25
Norway spruce	*Picea abies*	intermediate	intolerant	3b to 7	80 to 100	25 to 40
Ponderosa pine	*Pinus ponderosa*	intermediate	intolerant	3 to 6	70 to 90	30 to 50
Red or Norway pine	*Pinus resinosa*	intermediate	intolerant	2 to 5	40 to 60	20 to 30
Serbian Spruce	*Picea omorika*	intermediate	intolerant	4 to 7	45 to 50	15 to 20
White fir	*Abies concolor*	intermediate	intolerant	4 to 7	40 to 50	15 to 25
White pine	*Pinus strobus*	intermediate	intolerant	3 to 7	50 to 80	25 to 35
White spruce	*Picea glauca*	tolerant	intolerant	2 to 6	40 to 60	15 to 20

~To maximize energy savings, plant evergreens on the north and west sides of homes.
~Evergreens should not be planted on the south sides of buildings, as they block solar radiation in the winter.
~Most species of evergreens do not tolerate wet conditions and flooding; arborvitae and firs are the best choices if you are planting in a wet site.
~Not all species are appropriate for all situations - consider hardiness zone, soil type, shadiness of site, and proximity to buildings when selecting species.

Guidelines and Tips

* Information is from "Managing Storm-Damaged Trees", Iowa State University Publication SUL 6; for more information please see the full publication.
** Information is from "Understanding the Effects of Flooding on Trees", Iowa State University Publication SUL 1; for more information please see the full publication.