Department of Horticulture
FACT SHEET
THE CONSUMER HORTICULTURE CENTER

Using Trees and Shrubs for Privacy and Wind Screening

Residences benefit from trees and shrubs planted specifically to block unwanted views or prevailing winds. The first inclination of many homeowners is to plan a formal planting of one row of all the same kind of tree in a straight line, evenly spaced.

This ideal is often hard to accomplish. Most plantings attempted this way wind up with one or more trees missing. Sometimes the homeowner tries to replace the missing tree, but the match is rarely perfect. Tree rows are a long-lasting addition to a landscape, so the not-so-perfect effect can be a constant source of frustration for a homeowner who wants the landscape to look tidy.

Instead of planting a formal row of all one type of tree, consider planting a mix of different trees and shrubs. By choosing a mixture of plants, you will protect your screen from major loss caused by an outbreak of a single pest or disease. A mixed planting also increases the biodiversity in your landscape by creating habitat for beneficial insects, birds, and animals. By attracting these beneficial creatures, you may find that they successfully keep populations of pest insects in check.

As mentioned above, a formal, straight line planting is difficult to accomplish and often will not meet your goal of screening as rapidly as you would prefer. Consider alternatives to formal planting rows, including the more natural-looking cluster planting method, or multiple staggered row plantings.

Cluster planting is done by strategically installing plants in groups of threes, fives, or higher odd numbers to block specific views or prevailing winds. Cluster planting provides an attractive, natural-looking screen without walling off your house and yard like a fortress. By planting clusters away from your house, you also provide backgrounds for interesting flowering and fruiting shrubs that are visible from your deck or living room. Additional cluster plantings can be used to create groves. The combined effect provides screening and an interesting design, allows for good air flow, and accommodates walkways through your property.

Another option is to install multiple staggered rows of trees and shrubs. This type of planting will provide a fortress wall effect. Multiple staggered rows are also commonly recommended for homesteads in open areas to provide protection from prevailing winter winds or reduce noise from traffic or equipment. Multiple staggered rows can be installed using two or three rows of trees and shrubs. The spacing should be based on the average diameter of the plants at maturity. Each successive row is offset or staggered so that the plant fills the visible gap between each of the plants in the previous row. To further enhance the screening, a third row of similar size or smaller plants can be planted. The major benefit of this planting arrangement is that gaps fill in quickly and total screening is achieved more rapidly than a single row. However, a common mistake by the impatient property owner is to plant the trees too close together to achieve immediate privacy. This decision will quickly lead to crowding between neighboring trees, resulting in shading, loss of lower branches, and overall loss of the screening effect.

No matter how you choose to arrange the plants in your screen, keep in mind aesthetics as well as utility. Dot the mini-forest you have created with an occasional focal-point specimen tree—something with unusually colored foliage, unusual fruit, or good fall color. This “punctuation mark” tree will probably cost more than other trees in the screen, but will give you many years of visual enjoyment.

Before choosing any plants, evaluate your site and your planting areas. Consider space limitations of the site including utility lines, walkways, driveways, and roads that must remain visible and accessible. Consider zoning requirements for the distance of the plantings to roads and sidewalks. Consider the soil type, drainage, and pH (soil test kits are available from your local county Penn State Cooperative Extension office). Also, consider the availability of water, which will be needed until the plants are established or during drought.

The following table lists both deciduous and evergreen trees and shrubs that can be used for screening and windbreaks. Not all plants are suitable for windbreaks due to the potential for injury from cold or dry wind; plant suitability is specified in the table.
More new trees die in landscaping from planting errors than any other cause. All trees should be planted with the root flare just level with the surface of the soil. Use two to three inches of organic mulch in a wide circle, and be sure to keep all soil and mulch away from the trunk.

Before you buy any plant, learn more about it (e.g.; major pest problems in the area, cultural requirements, etc.) by asking questions at the garden center or doing research at your local library. Property size and space will also impact your plant choices, so the table is divided into plants suitable for large scale and small scale screens. Finally, deciduous plants are included for situations where summer screening for privacy is the main goal.

The final, but perhaps most important step in establishing an attractive screening is proper planting.
More new trees die in landscaping from planting errors than any other cause. All trees should be planted with the root flare just level with the surface of the soil. Use two to three inches of organic mulch in a wide circle, and be sure to keep all soil and mulch away from the trunck.

For more information on soil testing and planting ornamentals, call your county Cooperative Extension office

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Large scale screens—Trees

Genus and species	**Plant type**	**Screen / Windbreak**	**USDA Hardiness Zone**
Concolor fir, *Abies concolor*	E	Both	4-7
Hedge maple, *Acer campestre*	D	Screen	5-8
European alder, *Alnus glutinosa*	D	Screen	4-7
Siberian pea-shrub, *Caragana arborescens*	D	Both	2-7
European hornbeam, *Carpinus betulus*	D	Screen	5-7
Atlantic white cedar, *Chamaecyparis thyoides*	E	Screen	4-8
Hawthorn, *Crataegus* species	D	Screen	4-7
Cryptomeria, *Cryptomeria japonica*	E	Screen	5-6
Leyland cypress, ´*Cupressocyparis leylandii*	E	Screen	6-10
Possumhaw, *Ilex decidua*	D	Screen	5-9
American holly, *Ilex opaca*	E	Screen	5-9
Chinese juniper, *Juniperus chinensis*	E	Both	4-9
Rocky mountain juniper, *Juniperus scopulorum*	E	Both	3-7
Eastern redcedar, *Juniperus virginiana*	E	Both	3-9
Dawn redwood, *Metasequoia glyptostroboides*	D	Both	5-8
Spruce, specifically *Picea abies*, *P. glauca*, *P. mariana*, and *P. pungens*	E	Both	3-7
Pine, specifically *Pinus rigida*, *P. strobus*, *P. strobiformis*, *P. virginiana* species	E	Both	3-7 except P. strobiformis 5-6
Douglas fir, *Pseudotsuga menziesii*	E	Screen	4-6
English oak, *Quercus robur*	D	Screen	4-8
Laurel willow, *Salix pentandra*	D	Screen	2-5
Baldcypress, *Taxodium distichum*	D	Both	4-11
Eastern and Giant Arborvitae, *Thuja occidentalis* and *T. plicata*	E	Both	3-7, 5-7
Canadian hemlock, *Tsuga canadensis*	E	Screen	3-7

Small scale screens – Shrubs

Amur maple, *Acer ginnala*	D	Screen	3-8
Bottlebrush buckeye, *Aesculus parviflora*	D	Screen	4-8
Summersweet, *Clethra alnifolia*	D	Screen	4-9
Shrub dogwoods, specifically *Cornus alba*, *C. ammomum*, *C. sanguinea*, and *C. sericea*	D	Screen	3-7
Multi-stemmed tree dogwoods; *C. mas*, *C. racemosa*	D	Screen	4-7
Willowleaf cotoneaster, *Cotoneaster salicifolius*	E	Screen	6-7
Border Forsythia, *Forsythia´ intermedia*	D	Screen	4-8
Large Fothergilla, *Fothergilla major*	D	Screen	4-8
Chinese loropetalum, *Loropetalum chinense*	E	Screen	7-9
Pine, specifically *P. cembra* and *P. mugo*	E	Both	3-7
Catawba rhododendron, *Rhododendron catawbiense*	E	Screen	4-8
Rosebay rhododendron, *Rhododendron maximum*	E	Screen	3-7
Flameleaf shining sumac, *Rhus coppalina*	D	Screen	4-9
Yew, *Taxus* species	E	Both	4-7
Arrowwood viburnum, *Viburnum dentatum*	D	Screen	3-8
Wayfaring viburnum, *Viburnum lantana*	D	Screen	4-7
Leatherleaf viburnum, *Viburnum rhytidophyllum*	E	Screen	5-7
Lantanaphyllum viburnum, *Viburnum rhytidophylloides*	D	Screen	5-8

D = deciduous, E = evergreen