Conifers for Chicagoland Picking the right plant ensures success.

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Reprinted from Chicagoland Gardening Jan/Feb, 2000, pg. 18

Driving down the highway, I am always frustrated by the sight of pine trees planted along the roadside. I am frustrated because it is a classic example of the wrong plant in the wrong place. These plants have been selected and sited without any consideration for the fact that cars will be passing them upwards of 50 miles per hour. In winter this will result in blasts of salt spray covering them. Since pines have evergreen leaves, the salt will desiccate the needles and cause potentially severe damage. Deciduous trees have a little better chance since they don't have their leaves in winter but heavy salt spray can even damage them. Just take a good look at the trees on Lake Shore Drive. Their trunks are full of cankers—something like open wounds on a human.

As a landscape designer, it is my responsibility to find the right plant for the right place. To do this I must evaluate the conditions of the site (as in light, soil, wind) and the space that will be available for the plant to mature. These factors must be balanced by the purpose the plant is to serve, for example screening a view or accenting some other feature of a garden.

The pines that the highway department plants along the highways are usually Scotch Pine (*Pinus sylvestris*), Austrian Pine, (*P. nigra*), or White Pine, (*P. strobus*). In choosing these species, the highway department has fallen pray to a common mistake: choosing a plant based on only one factor. In this case, I presume that factor was that they wanted an evergreen plant.

This is certainly not to say that conifers are not an excellent choice for Chicago gardens. An enormous group of plants, they constitute close to 500 species in approximately 45 genera, including the pines along the highways. Conifers are cone-bearing plants and have simple, evergreen leaves that are needlelike or scale-like. Though not many are native to the plains states, a good number are highly adaptable and are well suited to our climate.

Conifers have many benefits. Being evergreen, they add greatly to our long winter season. They provide excellent cover and a good source of food for birds. And from a design standpoint, they can add weight and substance to a garden scheme. As long as their cultural requirements are met and they are given the room they need to grow, they will give many years of enjoyment, becoming more stately with age.



Above: The Dawn Redwood (Metasequoia glyptostroboides) is one of only a few deciduous conifers. This large, fast growing tree makes an excellent shade or street tree. It has deciduous needles that turn reddish brown in autumn and reddish brown bark shredding and fissuring adds winter interest.

Culture, Disease and Insects

One of the key cultural requirements of conifers is good drainage. Very few species will tolerate wet feet, that is, poorly drained soil. Sandy soil is the general preference, but most will adapt to heavier clay soils as long as they are given good drainage. Though some will tolerate pruning, realize that heavy shearing, as we are prone to give the junipers that line our foundations across this country, will ultimately result in disease problems.

Many fungus pathogens plague conifers. The most common in our climate is Diplodia Tip Blight. Diplodia likes cool, wet weather. The longer a plants leaves stay wet, the more likely it is that fungus will attack. Prune susceptible plants to provide better aeration and avoid shearing conifers. When a plant



Above: Pine twig infected with Diplodia Tip Blight showing stunted needles and new growth. A few brown needles at the tip of the current season's growth are the first evidence of tip blight. These blighted needles are usually located on the lower branches of the tree. Needles that are in the early stages of development stop growing after infection and therefore appear stunted when compared to healthy needles. Surveys indicate that no species of pine (Pinus) is immune to this disease, although some species are more severely affected than others. Stunted twigs may exude resin as indicated by the red arrows.

is sheared it becomes more dense and, therefore, stays wet longer. Hand pruning and thinning will go a long way to maintaining health. Moreover, choosing a plant that will not grow lager than what the space requires will eliminate the need for any heavy pruning.

There are several insects that cause noticeable damage in our area as well. One, the Zimmerman Pine Moth, can be detected by the clumps of whitish "frass" it creates by whipping up the sap which seeps from small holes it bores in the bark crevices. It is most common on Austrian Pine, but can also be found on Scotch Pine. The European Shoot Moth attacks the new growth of pines, called candles, causing die back similar to Diplodia. Finally, spider mites are common on spruce trees, especially in periods of drought, causing trees to look pale. A good way to tell if you have mites is to hold a piece of white paper under a branch and tap the branch briskly. Mites will fall off the branch onto the paper. They are extremely hard to see, but if you slowly brush off the paper, the mites, if present, will make small reddish streaks on the paper.

All of these pests can be avoided by using good cultural practices. This always starts with choosing disease resistant species or varieties as well as practicing good sanitation and using proper pruning methods. The list of disease resistant varieties is lengthy, however, availability in the industry is somewhat more limited.

Surprisingly, some of the best species are the least used. It will take an educated customer base that demands a wider, more sophisticated palette of plants to choose from before nurseries will begin to grow less well known plants. Having said that, there are some excellent choices available right now.

To begin with, the Russian Arborvitae (*Microbiata decussata*) is a low growing plant that is a shade and drought tolerant replacement for junipers. It has arborvitae like foliage that turns bronzy purple in winter and will spread to 8 feet wide. Other low growing, shade tolerant evergreens can be found among the plants known as dwarf conifers. Dwarf conifers are any that for some reason or another, often, (but not always) a mutation or virus, don't grow as large as the parent plant.

A trip to Riches Foxwillow Pines (see sources) will entertain you for weeks if you have the time. There you will find Canadian Hemlocks (*Tsuga canadensis*) in a variety of dwarf forms. Gentch White is a mounded cultivar that will only grow to 2 feet high and has white tipped leaves. If you need a focal point for a small yard you might try a cultivar of Norway Spruce (*Picea abies*) called Acrocona. This compact, semi-upright plant that has reddish-purple

new cones—as pretty as any flower—that contrasts beautifully with the chartreuse new foliage.

If you are in need of larger plants, a fine specimen can be found in the Limber Pine (*Pinus flexilis*) and its many cultivars. Vanderwolf's Pyramid has handsome blue-green and twisted clumps of needles and will grow to 40 feet. It is less prone to disease



Above: Weeping Canadian Hemlock (Tsuga canadensis pendula) is a suitable for small places, typically growing 4-5 feet tall and 8-10 feet wide. It is easily grown in average well-drained soil in part shade to full shade. Prefers cool, moist, humid conditions and does not tolerate drought.

than Scotch and Austrian Pines and more refined than White Pine. The Swiss Stone Pine is another large specimen of similar height. Its needles are an attractive combination of dark green and bluish white.

If you like the Colorado Blue Spruce (Picea pungens f. glauca), try Weeping White Spruce (Picea glauca 'Pendula'). It ascends naturally, without staking, to comparable heights. It has double the charisma of the former and you will avoid fungus and mites. Sticking with the conical shapes, I would be remiss not to point out two other stately alternatives: Bald Cypress (Taxodium distichum), and Dawn Redwood (Metasequoia glyptostroboides). You won't find year round green with these two, but what you loose in leaves you will gain in fall color, rich russet red in the former and clear golden yellow in the latter, and beautiful brown bark. Baldcypress will tolerate wet or dry soil and will even grow in standing water where it will send up buttresses called "knees". Both are very fast growing.

So the next time you drive down the highway and see pine trees planted along the roadside, give your own yard a thought. Perhaps you can help lead the way for the landscape industry by asking for less common, and sometimes better suited varieties of conifers for yourself. Good luck!

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Sources

Rich's Foxwillow Pines, (815) 338-7442, www.rich esfoxwillowpines.com

Charles J. Fiore, Prairie View, IL (847) 913-1414

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Above: Knees produced by Bald Cypress (Taxodium distichum) when in the proximity of water. Bald Cypress makes an excellent street tree since the knees are not produced in the absence of standing water.