Eastern Arborvitae, American Arborvitae, White Cedar *Thuja occidentalis*

Alex X. Niemiera, Professor, School of Plant and Environmental Sciences, Virginia Tech

Summary:

Foliage: Flat scale-like foliage with a pleasant sweet fragrance when crushed; evergreen Height:

About 40 feet

Spread: About 15 feet

Shape: Conical (cone-shaped); forms represented by numerous cultivars vary from narrow-conical

to mounded shrub forms

Main features: Eastern arborvitae is a conical conifer that has a stately appearance and useful as a specimen plant (used alone as a focal point), as a border planting, or anywhere a conical evergreen is appropriate. There is significant variation within the species. This variation is evident in view of the numerous cultivars (more than 80) that vary in size, form, and color. The species is typically slow-growing and quite tolerant of adverse conditions. Arborvitae tolerates dry, alkaline, and moist soils, although growth will be especially slow under these conditions. In contrast to pines, arborvitaes hold their lower foliage with age. A disadvantage of this species is that the green foliage turns an unsightly yellow/brown-green in the winter. A few cultivars such as 'Emerald', 'Nigra', and 'Techny' have winter foliage that is less prone to going off-color. Other cultivars will be described.

Plant Needs:

Zone: 3 to 7

Light: Full sun (will be less dense in part shade; will not tolerate shady sites)

Moisture: Average but will tolerate dry to moist soils

pH range: Acid to alkaline

Functions:

Arborvitae's conical form and retention low foliage at the base of the plant confers a formal appearance. Thus, it is suitable as a specimen plant, as a border plant, or anywhere a conical evergreen species is appropriate. One should buy single trunk specimens since multiple trunk plants are very prone to splitting apart in heavy snow.

Care:

Arborvitae has a relatively slow growth rate which can be an advantage, i.e., low pruning requirement, or a disadvantage, i.e., takes several years to grow to the desired height. This species is tolerant of pruning so once a year pruning can keep the plants at a desired size; one can even prune species to form a medium sized hedge (less than 8 feet tall). When pruning, one must not remove all the foliage from any one branch. Since new buds are only produced on branches with new foliage, new growth will not emerge if one cuts off all the foliage on a branch. Arborvitae have a few pest problems with the most problematic being arborvitae leaf miner and deer. One should buy single trunk specimens since multiple trunk plants are very prone to splitting apart in heavy snow.

Additional Information:

There are numerous arborvitae cultivars in the trade. Here are brief descriptions of some of the popular/widely used cultivars:

'Degroot's Spire' Columnar form

'Emerald' Narrow conical form that has minimal browning in winter

'Nigra' Conical form that has a good green winter foliage color

'Rheingold' Mounded to oval shrub form that is yellow in spring, green-yellow in summer, and bronze-colored in winter

'Techny' Conical form that has a very good green winter foliage color