CHRISTMAS TREES

Christmas trees have ancient origins in many lands. Some say that a type of indoor tree display originated with the ancient Egyptians and Romans. Holiday tree displays became a German tradition and were brought by immigrants to the United States in the early 1800s.

The original Christmas tree used in the United States was a native evergreen species. Indigenous trees gained reputations as the best species to use in local areas. Early New England favorites were balsam fir (*Abies balamea*) and red spruce (*Picea rubens*), while Douglas fir (*Pseudotsuga menziesii*) became popular in the Pacific Northwest. Red pine (*Pinus resinosa*) was widely used in the Midwest and the eastern red cedar (*Juniperus virginiana*) predominated in the mid-Appalachians.

The Christmas tree industry began in about 1850 when indigenous trees were cut from natural forests. Growers soon began to shape and plant trees specifically for use at Christmas. Today, the Christmas tree industry provides the entire country with a wide range of evergreen species. Christmas tree farming has become an important agricultural industry.

Selection

Selecting a desirable Christmas tree requires a variety of considerations. First, determine a location within your home and measure the height and width of the area. Determine how many sides of the tree will be viewed.

Second, determine which species of tree you find most desirable. Color, form, and texture vary widely among species. Needle retention is an important consideration when choosing a tree and varies tremendously between species. Excessive drying and loss of needles is important from a standpoint of aesthetics as well as fire hazard. Species such as the Fraser fir (*Abies fraseri*) remain green and shed very few needles even after excessive moisture loss. Balsam fir (*Abies* balsamea) has a reputation for a slightly poorer needle retention.

A tree purchased at a Christmas tree lot will not be as fresh as one cut by the customer. There are numerous "cut your own Christmas Tree" operations in the Chicago area. Commercial trees are cut rather early in the season and may lose a great deal of moisture during transportation and storage. This may result in a premature loss of needles.

If you purchase a pre-cut tree, make certain it is fresh. The needles should be resilient, not brittle, and should adhere to the twigs. (When the temperature is 0 degrees Fahrenheit or lower, even fresh needles will be brittle.) Determine freshness by raising the trees a few inches off the ground. Then firmly drop the butt of the trunk to the ground. If the tree is fresh, few needles will fall. The tree should have a fresh, pungent fragrance and a natural, waxy green appearance. The limbs should be full, bushy, symmetrical and strong enough to support ornaments. The bottom of the stump should feel sappy and moist.

Care

Care of all cut trees is generally the same regardless of the species. First, and most importantly, select a fresh tree, as described under Selection. A dry tree will not take up water. Cut and bring the tree indoors as close to Christmas as practical to obtain optimum freshness and quality.

It is not necessary to cut the tree upon bringing it home. Store it in a cool, 40-50 degree, wind-free and sun-free area, such as an unheated garage. When it is time to bring the tree indoors, a right angle cut should be made approximately 2" from the base of the trunk. Diagonal cuts will make it more difficult to mount in a stand. Bring the tree into the house the night before decorating. Choose a location away from heat sources or open flames, such as fireplaces, radiators, or electrical appliances. Mount the tree in a stand that will firmly support it and that holds a large amount of water. Place the trunk in a bucket of warm water immediately after placing the tree in its stand. Check the water level daily and add fresh water when necessary. A large fresh tree may use 1 gallon of water in the first 24 hours. The cut end of the tree should be kept in water at all times. Never allow the water level to drop below the cut bottom of the trunk. If you allow the water level to drop below the trunk, a seal will form on the cut end just as it does on a cut flower. The tree will remain fire resistant as long as it keeps drawing water. If you use electric lights, check them carefully for frays or worn spots and repair or replace them if necessary. Generally, water additives (or freshness additives) do not prolong the life of the tree. They may have more psychological value then physiological value. Remove the tree soon after the holidays.

A Living Christmas Memory

A third alternative exists in purchasing a live Christmas tree to be moved indoors for the holidays and planted outdoors shortly afterwards. Live trees may be purchased from local nurseries or garden centers, planted in containers, or balled and burlapped (B&B). Trees can be purchased any time they are available for sale; however, it is best not to move them indoors much sooner than mid-December. In the Chicago area selections may include Fraser fir (*Abies fraseri*), balsam fir (*Abies* balsamea), Douglas fir (*Pseudotsuga menziesii*), white pine (*Pinus strobus*), Scotch pine (*Pinus sylvestris*), and the more costly noble fir (*Abies procera – syn. A. nobilis*).

A living Christmas tree may seem like an ecological alternative but does suffer from a number of limitations. It tends to be smaller than a cut tree. The weight and bulkiness of the soil in the container or ball tend to restrict the use of a tree much taller than 3-4' high. The tree should be acclimated to home conditions prior to bringing it into warmer temperatures, can only be left indoors for 7-10 days, and must be re-acclimated to outdoor conditions prior to moving back outdoors. A hole must be dug early in the season, prior to the ground freezing, to prepare for after-Christmas planting.

Planting a conifer outdoors during January is far from the ideal time. The moisture supply is limited due to the frozen ground, desiccation occurs from the drying winds, and the tree is not completely hardened off after being indoors for the holidays. Growth that is not hardened off is often subject to dieback. With these complications the survival of a living Christmas tree tends to be unpredictable. Regions with milder climates have much greater success.

It would seem simpler and almost as enjoyable to purchase a precut or "cut your own" tree for the indoor holiday season. Reminders of the holidays may not be planted permanently outdoors with a cut tree but will constantly exist as thoughts and memories of seasons past when planted in the garden.

CHARACTERISTICS OF RECOMMENDED CHRISTMAS TREES

Species	Color	Needle Retention	Fragrance	Firmness of Branches
Balsam fir *Abies balsamea*	dark green	good	excellent	very good
Colorado spruce *Picea pungens*	dull green to silvery blue	good	good	excellent
Douglas fir *Pseudotsuga menziesii*	yellow green	very good	excellent	fair
Fraser fir *Abies fraseri*	dark green	excellent	excellent	excellent
Noble fir *Abies procera*	blue-green	excellent	very good	excellent
Norway spruce *Picea abies*	dark green	good	good	good
Red pine *Pinus resinosa*	dark green	very good	good	very good
Scotch pine *Pinus sylvestris*	dark blue-green	excellent	good	excellent
White fir *Abies concolor*	pale blue-gray	good	very good	very good
White pine *Pinus strobus*	silvery blue-green	good	very good	fair
White spruce *Picea glauca*	blue green	poor	poor	very good

CHICAGO BOTANIC GARDEN
1000 lake cook road glencoe, illinois 60022
www.chicagobotanic.org (847) 835-5440
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