

Use winter break to care for trees around the golf course

■ A winter decrease in golf activity on courses throughout the United States provides many golf course superintendents with time to plan and perform tree maintenance. If you have limited funds and resources, pruning and planting tasks will help make effective use of this time.

Proper winter care will get trees off to a good start. During the winter you can prune trees, inspect recently planted trees and decide on spring planting sites.

Prune regularly—Set a regular pruning schedule for golf course trees. Len Burkhart, Ph.D., horticulturist with The Davey Tree Expert Company, Kent, Ohio, recommends a three-year pruning cycle.

"Every year, prune one-third of the tree population," Burkhart says. "This helps keep trees healthy while keeping costs down."

Trees that are not on a regular pruning schedule often are radically pruned to achieve the desired form. When that happens, workers overprune to make up for pruning they don't schedule later.

Thus, the tree loses too much foliage, and is unable to produce enough energy for the pruning cut to close properly and quickly. With radical pruning, the tree will slowly decline and may eventually die.

Larger, open cuts also make the tree more susceptible to disease problems, especially canker rot fungi. The fungi weaken the tree structure and eventually causes breakage. Large pruning cuts can also indirectly compromise tree health, which makes them more susceptible to pests.

When to prune—Intensive pruning should be performed in the dormant season. Late winter to early spring, just before new growth begins, is a good time to prune trees. Proper pruning cuts made in the winter close more rapidly than cuts made at other times of the year.

When trees lose their leaves in the winter, it is easier to spot problem areas and place pruning cuts, says Richard Rathjens, a Davey technical advisor.

"The new leaves that emerge the following spring will help hide cuts made in the winter," Rathjens says. "Also, pruning in late fall and early winter minimizes sap flow from pruning cuts on trees such as conifers, maple, birch and walnut."

Winter pruning also minimizes damage

to some tree species. The bark of some trees, such as maple and ash, are more susceptible to tearing loose during climbing and pruning in the spring.

How to cut—Proper pruning improves the health and appearance of trees and prolongs their life by removing dead, weakened, diseased or insect-infested branches.

Don't paint the cut! In most cases, painting is not recommended. Paint traps moisture on the freshly cut surface, providing an environment conducive to fungal growth.

Untrained workers often prune incorrectly. Professional arborists place pruning cuts outside the branch collar, the swollen area where the branch attaches to the main trunk. You can easily see the branch collar on many trees.

"The whole idea behind proper pruning is to avoid injuring the trunk," Rathjens says. "Once the trunk is damaged, it can lead to decay and death of the tree."

A common pruning mistake is making one straight cut through a branch. When cut this way, the branch's weight can cause the wood to splinter and pull bark from the tree. To help avoid tearing, a cut should be made on the branch's underside, a foot or two out from the trunk, about one-third of the way through the branch. A second cut should be made on top of the limb a few inches farther out from the first cut. These two cuts remove most of the branch's weight. The stub is removed with a final cut made just outside the branch bark ridge and through the collar.

Wound closure begins from the edge of the pruning cut. This produces a roll of tissue called callus. The callus that develops from a correct cut resembles a round doughnut.

"Topping" is another pruning mistake. This occurs with the indiscriminate removal of a tree's main leader and branches, resulting in unsightly stubs. Topping severely disfigures trees and

results in "watersprouts," weak limbs that are susceptible to damage from high winds or other adverse weather.

Don't paint the cut!—In most cases, painting is not recommended. The paint traps moisture on the freshly cut surface, which provides an environment conducive to fungal growth. Painting should only be done in rare instances, such as on trees that are susceptible to oak wilt and Dutch elm disease during periods of beetle flight.

'Plan'-ting—Although properly prepared and protected planting stock can often be successfully transplanted during any season, there are specific times of the year when planting is most successful. Winter is a good time to determine which trees you want to plant.

It's usually best to move plants when shoots are dormant. Deciduous trees are normally planted in the fall after leaf drop and before the soil freeze. In early spring, before bud break.

Narrowleaf evergreens also may be planted in the fall or in the spring before new growth starts. Broadleaf evergreens should be planted in the spring in climatic zones where soils freeze. In northern regions, where the soil freezes early and deep, spring planting of evergreens is perhaps the safest, says Burkhart.

"In the South, with its mild winters, fall planting is preferred," says Burkhart. "Winter planting is fine for plants with a root ball large enough to contain undisturbed roots that supply branches with water until spring."

Transplant into warm soil—Correct transplanting often depends on soil temperatures. The soil must be warm enough to permit the growth of new roots immediately after planting, and continue until adequate root growth can support the plant's water requirements.

"Roots grow best when soil temperatures are between 60° and 80° F," says Burkhart. "Because tree root growth stops when the soil freezes, trees should be transplanted at least four weeks before soil temperatures drop below 32° F to allow proper root development in the fall."

**NEXT MONTH:
Planting and
staking**