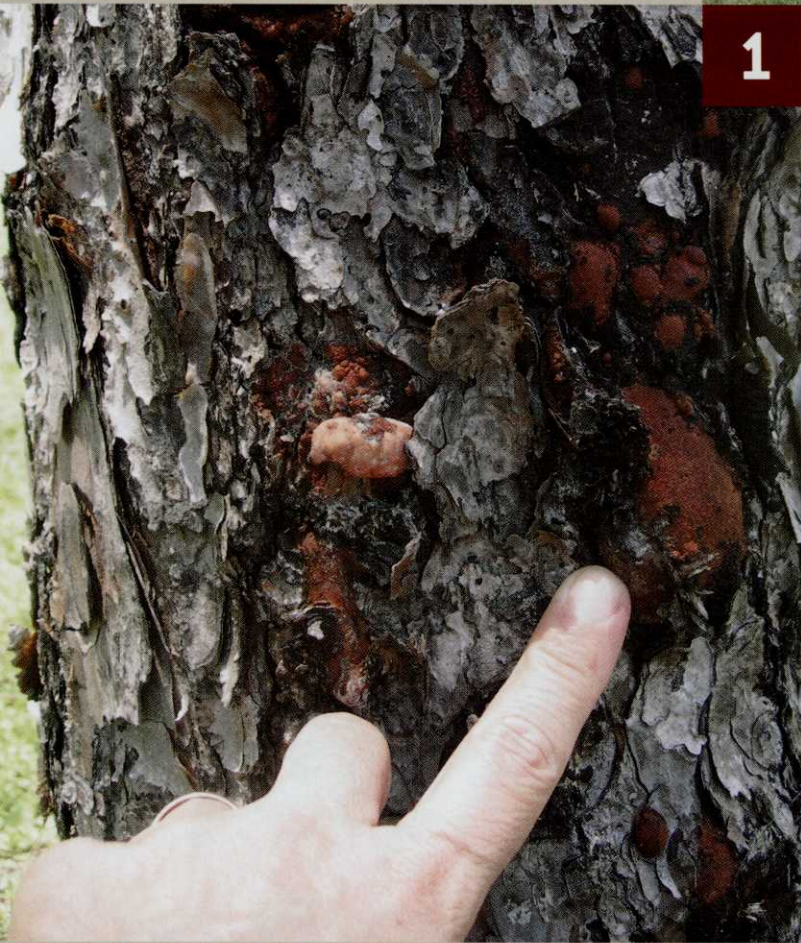


When it comes to golf courses,
turfgrass is king.

However, trees are an important component of the
golf course landscape that are sometimes ignored
or overlooked by superintendents and their crews.

Tree Care *on the* Golf Course

By A. D. Ali, Ph.D.



Several factors contribute to the reduced attention given to trees on golf courses. First, most superintendent training and education programs emphasize turf care with little or no mention of trees and woody plants. This causes the superintendents and their staff to be uncomfortable or unsure of how to properly care for their trees.

Second, players and members are usually concerned with the conditions of the course more so than those of the landscape. They usually pay more attention to the presence of weeds or diseases, color and aesthetics of the turf, and playability and speed of the greens.

Third, most courses have budgetary constraints that limit the superintendent's options for allocating funds. As a consequence of the second and third points, superintendents often opt to allocate the lion's share of their budget to turf care.

Trees provide many valuable contributions to the golfscape. They direct play on the fairway and

define doglegs. Placement of the tree determines the level of skill. Care should be taken, however, not to place the tree too closely to the line of play. Balls colliding with the trunk result in "Golfer Canker," which is represented by large, distorted, bleeding areas on the trunk. Trees also provide shade, which is important for golfers, but detrimental to turf. Taller trees can provide

“When pruning trees, correct arboricultural practices must be followed. Improper pruning may lead to poor shape and structural defects.”

a backdrop for following ball flight and they can separate fairways to mitigate liability. A large tree, or a certain type of tree, may be a course's signature.

In nature, trees and turf do not co-exist. Trees provide dense canopies that result in shading and light interception. Most turf-

grasses prefer full sun and grow weakly or not at all in shady conditions (Photo 2). Placement of trees and knowledge of their size and shape at maturity become important.

In addition, proper pruning of trees and canopy thinning or elevating are vital when attempting to minimize shade. When pruning trees, correct arboricultural practices must be

followed. Improper pruning may lead to poor shape and structural defects. As the tree grows and the defects become larger, they may create hazards such as limbs failing and striking players. Again, knowledge of the tree growth habits is essential.

Another potential consideration when



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1 After being hit by a golf ball, this tree now suffers from a "Golf Canker".

2 Untrimmed trees cause shaded areas that may result in weak to no turf growth.

3 Poorly hydrated trees may develop "leaf burn", stressing the tree and diminishing its aesthetic value.

4 Flowering trees, while aesthetically pleasing, result in unacceptable litter and attract bees.

Additional Reading

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placing trees on the course is litter. Most trees are deciduous and some, such as eucalyptus, shed not only leaves, but bark sections as well. Placing them too closely to play areas may require additional cleanup. Flowering trees enhance aesthetics, but may drop their flowers and result in unacceptable litter. Bees visiting those flowers may create a nuisance to players.

Tree and turf roots will compete for water and nutrients. Some trees, such as walnuts, produce allelopathic compounds that are detrimental to adjacent vegetation. On the opposite end, dense turf roots may outcompete tree absorbing roots and result in reduced growth and tree vigor. Surface applications of granular fertilizers in turf areas do not benefit tree roots. Deep root fertilization should be considered when caring for trees in turf areas.

Tree roots may also grow close to the surface, which interferes with mowing and

reduces aesthetics as well as creating fall and trip hazards. A reasonable solution is to mulch the area under the drip zone to exclude turf. This results in a win-win situation. Root competition will be reduced, turf will continue to grow in sunny areas, and trunks will not be damaged by maintenance equipment such as mowers and string trimmers.

Irrigation is another factor to consider when caring for trees on the golf course. Water pH must be monitored, and if the pH is too high, it should be buffered. High water pH may increase soil alkalinity leading to nutritional deficiencies. This is common on courses with pine trees, which display chronic yellowing of needles known as pine chlorosis. Another aspect to consider is the soluble salts and TDS (total dissolved solids), especially when using reclaimed water for irrigation. If the salts are high, leaf burn may result, which stresses the trees and reduces their aesthetic value.

Trees provide many benefits on the golf course. Proper placement and knowledge of growth habits will minimize any challenges created by forcefully growing trees close to golf turf. Specific emphasis on trees should be placed in superintendent training programs. In addition, superintendents will likely be seeking more advice and recommendations from arborists regarding proper tree care, providing business opportunities for arborists. Given intelligent budgetary allocation, trees can contribute many tangible and intangible benefits to the golfscape over their long life span. **GCI**

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