WHAT makes a golf course great?

To quote one famous player, "The classic test must combine woods, wind and water."

Certainly a course without at least a sizable number of well-placed trees is so barren it looks sterile. Actually, except for a few superb seaside links like St Andrews, most beautiful, tough courses are thick with trees.

How many times the role of trees is taken for granted in golf course design and maintenance! Planners often fail to give them proper consideration as living things, just like turf, with individual characteristics and specified life spans.

Usually the builder of a new course faces one of two basic problems with tree layouts. A site may have either too many trees or too few. It is left to the architect to mark those to be cut down and he may also work up a planting plan.

For any course, the superintendent should have a basic, well-conceived tree-planting program. Every season his budget should provide enough money not only to maintain existing trees but also to replace those dying or damaged and allow new planting to the course.

Although a budget always presents a problem, the character of a course can be completely altered by moving in large trees. Today there are machines that can transplant trees of 20 feet or more in height and eight inches or more in diameter, depending on the species.

While trees will beautify any open site, they particularly enhance the appearance of golf courses. By carefully selecting and placing trees, architects and superintendents can provide golfers with color, texture, fragrance, scale, illusion, mood, safety and, most important, with golf shot values.

From the golfer's viewpoint, here are some specific functions of trees on golf courses:

- To serve as a safety screen between fairways or between greens and adjacent tees to protect players from errant shots.
- To frame and define the path to the hole from tee to green along fairways — not straight rows of trees but natural groupings.
- To screen players' views and to outline course boundaries from out-of-play areas such as sod nurseries and maintenance shops.
- To provide shade comfort to players in vicinity of tees.
- To offer shot alternatives or control the line of play from tee to green by strategic placement of single specimens or small groups.
- To modify the natural environment of the course by reducing wind, filtering harsh sunlight, and muffling road and highway sounds.
- To add pure aesthetic values, which is a major consideration for any course.

These effects are rarely created by accident. On most great courses where trees affect shot values, the selection of those trees to remain after clearing and the planting of any new trees is an integral part of a highly professional and meticulously conceived plan.

Landscape Plan Required

There is one universal principle for any golf course — old or new, nine holes or 36, public or private: have a master landscape plan and never stop working from it.

A landscape plan for a new course should be part of the services furnished by the golf architect. No golf course plan is complete without it regardless of how many years it takes to implement the entire landscaping program.

The major considerations that go into a planting plan include topography, geology, ecology, climate, existing plantings on the site, type of course, rural-vs.-
urban setting, and, of course, budget limitations.

How many trees does your course need? There is no pat answer. Your total acreage, the numbers and sizes of existing plant materials and of any that are yet to be planted, natural environment — all these govern your figures. The famous Olympic CC in San Francisco, site of two U.S. Opens, for example, was cut through heavy woods with about 70,000 trees.

It would be unrealistic to ponder bringing in mature trees in such numbers to any open site. On the other hand, planting 200 or even 500 trees of approximately 10 feet heights on some new courses represents a mere drop in the bucket for framing holes and even adding much beauty. Of course, the number of trees added is less important than their size and placement. A few large (20 feet-plus), strategically placed specimens do more for a new course than 100 half-inch-caliper whips.

More and more, maintenance costs and problems are a significant factor in landscaping programs. Water requirements, shading, and air drainage are important in determining how tree numbers and types can affect turf.

Air drainage is especially crucial in the proximity of greens. The architect or superintendent who is building a new hole must analyze whether or not the green will get enough sun and air in its planned location. A common error committed on courses that are cut through dense growth is to leave too much vegetation close to a green. The result is restricted air flow and diseased turf.

Maintenance of and around the trees themselves should be a prime factor in the choice of tree species. Autumn leaves are an annual irritation to golfers, a nuisance to superintendents, and always a potential problem to turf. Small twigs that break easily and litter the turf are common to quick-growing trees like elms, willows and poplars. Fruit trees on a golf course present both a maintenance and playing hazard. Fallen fruit gets underfoot, tangles mowers and attracts insects in addition to creating an eyesore. Certain varieties of seeds, such as the white "cotton" from cottonwoods, and some seasonal blossoms will cover a great deal of the playing areas and make it rather difficult to spot golf balls on the ground.

There are definite questions to ask about a proposed species for a course: How susceptible is it to insects and disease? How much pruning is needed annually? Will the root system cause trouble to surrounding turf? Will it branch high enough to clear both golfers and maintenance machines? Does it require a special quality of soil to thrive?

Once new trees are planted, the superintendent cannot forget about them. In most areas they cannot survive without care. A program should include fertilizing, mulching, wrapping, staking and watering. If trees are properly handled in moving, and are native to the climate area, the percentage of successes will be high.

There are about 1,100 native tree species, and at least nine climatic regions in this country alone. Recommending "best" choices for any given course is impossible in this discussion. Near any course site, a visual inventory of what types do well is the best guide. Other superintendents, nurserymen, county agents, or landscape architects are logical sources of advice.

**Proper Tree Planting**

Here are some tips for the superintendent and grounds committee on using trees to improve a course:

- Around tees, trees may be close to the back edges, but should not overhang along the sides. They should have deep roots with high, but not dense, branches.
- Around greens, all trees should be set back so that the outer foliage line is no closer than 15 feet from the green edge. Ideally, a green-area species should be deep-rooted; provide only light shade; have high and strong branching; cause a minimum of litter; and not be odd-colored.
- Planting a single specimen tree because of its color, flowers, form or texture should be done only rarely. Too many unique specimens just make a

continued on page 14
collection of oddities. A few native varieties, placed in groups, create a more natural look.

- Trees used as background behind greens or as direction indicators should be large, dense, heavy and dark-colored.
- For view screens or windbreaks, the choice should be among types that are dense, low-branching, fast-growing and strong. Evergreens fit all these requirements well.
- Shrubs are practical only around tee areas, and sometimes along boundary lines. They should never be used along fairway play areas or near greens.
- Along an open fairway, one large tree will do more to guide the line of play and set off the corner of a dogleg than a clump of small ones.
- Although many courses have them, special "marker" trees along each fairway — usually 150 yards to the green — should be avoided. They seldom fit into the landscape naturally. Also, such placement eliminates the challenge of judging distance. Because many golfers want such help, if you use them, choose species that look as natural to your setting as possible.
- Plant fairway line trees in clumps or natural groupings. First priority should be in tee shot landing areas of 175 to 225-yard zones. This will frame the hole, provide beauty and minimize the effect of stray shots.
- Although machine maintenance is a major consideration, don’t feel you must always plant groups in wide, even spacings. Plant some in uneven groupings and others in tight clumps — one-third foot apart — to create the look of nature’s work.
- Don’t overlook the club entrance, driveway and clubhouse area. These areas also make a big beginning impression on golfers, members and visitors.

Landscaping a golf course properly is an are apart from all other landscaping. The thoughtful selection and skilful placement of tree species are the final brilliant brush strokes in creating an attractive, challenging and fair course. This end can be achieved masterfully if the superintendent keeps three considerations in the front of his mind: consider the golfer, consider beauty, consider maintenance. First, last and always, though, plan a permanent, long-range landscaping program and never stop working from it.

Richard Phelps, president of Phelps-Brauer & Associates, Lakewood, Colo., has designed some 40 golf courses throughout the country. He received his bachelor’s and master’s degrees from Iowa State University in landscape architecture, specializing in his postgraduate work in golf course planning. His thesis on landscaping golf courses has been used by the U.S.G.A. Green Section as a basic reference. Phelps is a member of the American Society of Golf Course Architects.

(With grateful acknowledgement to the "Golf Superintendent").