

ROCHESTER GOLF & COUNTRY CLUB'S TREES

by JAMES D. GARDNER
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Rochester Golf and Country Club

Rochester Golf and Country Club evergreens stand sentry over A.W. Tillinghast's design and definitely amplify his 'target' golf philosophy. These tree lined fairways also give each hole a unique tranquil setting. But to the golfer this coniferous forest becomes the brunt of many an unkind word or threat. The need to develop a controllable (hook, slice) punch shot in one's arsenal is essential in keeping a somewhat sane perspective.

Contrary to many speculations, Rochester Golf and Country Club was not carved out of an existing forest, but was the foresight and unending spirit of a golf loving man - Dr. W. D. "Pop" Sheldon. Dr. Sheldon was the principle force in planning and planting the evergreen population in the late 30's. In 1926, A.W. Tillinghast designed the present day layout of 18 holes disposing of the old linkslike 9 hole course that was laid out in 1917.

The tree community prior to Sheldon's forest consisted of mostly indigenous plants and some introduced species - the native trees include the following: basswood, bitternut hickory, black walnut, green ash, cottonwood, boxelder, red elm, white oak, red oak, northern pin oak, bur oak, eastern red cedar, Kentucky coffee tree and silver maple.

The beauty of these tree-lined fairways are not without some behind the scenes agronomic problems. Limited air movement and light penetration enhance the fungal growth environment. Also, tree-turf root competition for water and nutrients occur, and are especially noticeable around tees and greens. Maintenance programs of tree thinning, wood removal and clearance pruning are performed in the winter. The majority of this work is done by hand, rope and saddle. Increased air movement and light penetration for turf, decreased

tree-root competition around tees and greens (trenched) and removal of diseased, overcrowded trees are the main objectives of this program.

The mature trees are fertilized annually in late fall by broadcasting milorganite throughout the forest floor. Specific trees with possible micronutrient deficiencies or other nutrient problems are sprayed with a liquid fertilizer using the Rotomist. Woodace briquettes are used on all the new tree replacements. All young trees are protected from mower and weed-eater blight by plastic PVC guards at the base of the trunk.

Our two biggest fungal problems in the evergreens are diplodia tip blight and white pine blister rust. Constant high humidity around the trees through irrigation contact and a constant source of inoculum from still attached third year mature cones make this an ongoing problem in the red pines and Scotch pines.

This disease has been reduced considerably by systemic fungicide applications at the candle stage (the most susceptible time) and the removal of dead wood and cones. White pine blister rust is a problem on past infected white pine trunks. Exision of these cankers have given varying results. New infections have been stopped by quickly removing infected branches before the fungus reaches the trunk. Also the removing of lower branches has helped.

Other ornamental fungicide applications are applied according to weather conditions, types of fungi, severity of disease, and intervals of occurrence. Crabapples and hawthornes are sprayed for scab and rust with Daconil and Fore respectively when leaves are at the half grown stage. Powdery mildew problems on lilacs and honeysuckle are controlled with Bayleton or Rubigan. Problem insects such as pine bark louse, white pine aphid on the white pines and leaf miner damage on our birches are controlled with soil injection of Metasystox-R2 and/or dormant oil sprays.

Many abiotic (non-infectious) problems exist in our tree community. Irrigation water raises the ph near high limestone subgrade areas, nonindigenous soil conditions for certain species (jack pine), chlorine toxicity from pool

discharge, and the absence of natural forest mulch for moisture retention and preservation of the soil structure are some of our problems. All these adverse conditions can contribute to loss in overall vigor directly resulting in increased susceptibility to insect and fungal invasion. Some of these situations are site specific and have allowed for some site modification procedures. Annual fertilizing has helped balance some of these problems along with the planting of new hybrid species which are tolerant to these specific adverse conditions.

The Norway spruce and the European larch are by far our best evergreens for overall hardiness and tolerances.

The Dutch Elm disease control program (inspection, systemic fungicide and insecticide application, pruning and removal of infected elms, and root isolation) has not been the panacea we had hoped for. Sanitation is the single most important part of a successful control program. A major probable downfall of our program at Rochester Golf and Country Club is the constant high disease pressure

coming from infected elms in adjacent rural woodlots. The number of trees being treated with fungicidal (Arbotect 20S) injection has been reduced from all elms on the course to 40 priority elms. This prioritization takes into account their location according to golf strategy, adjacent elms, and general overall health. We have gradually lost some of our elms, but through an above average success program, time has allowed us to implement a replacement program.

Two tree nurseries have been planted. An evergreen nursery contains American arborvitae, Colorado blue spruce, Douglas fir, and Norway spruce. The deciduous tree nursery consists of river birch, Redmond lindens, Skyline honeylocust, swamp white oak, northern catalpa, Summit ash, and Souixland poplar.

Along with the two nurseries, a flowering tree shrub and perennial program has been incorporated each year. Our most limiting factor for plant material is of course, shade. Species and cultivars of hydrangeas, viburnum, amelanquier and hostas are being used in these shady

In 1969 Bill Johnson of Edina Country Club bought all the Cadminate available in the Twin City area from 3 turf suppliers. This purchase, plus a small stock of his own, was enough to treat the entire fairway areas of Edina Country Club for "Dollar Spot." The cost was \$1200.00.

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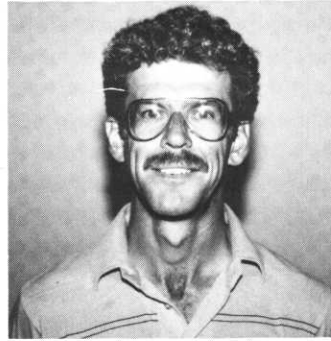
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areas. Other ornamentals have been chosen for later bloom such as Miss Kim lilac (mid-June), Japanese tree lilac (late-June), northern catalpa (late-June, early July), Peegee hydrangea (August), and Amur maackia (July). Russian olive, Canada red cherry, Japanese Whitespire birch (borer resistant), river birch, blue beech are selected for their color and textural qualities.

The members of Rochester Golf and Country Club are extremely proud of their A.W. Tillinghast course and enjoy the beauty, serenity and challenge the tree-lined fairways give the course. An active tree program will continue to provide this unique challenge to the members for many years to come.

POSITION WANTED

Energetic graduate of Iowa State with B.S. in horticulture/turfgrass management seeking crew foreman position, leading to an assistant superintendent position. Four years experience with two years in Minneapolis. Experience in many phases of golf course operation. Write: Paul G. Johnson, 712 1/2 North Duff, Ames, IA 50010. Telephone: 515/232-6798.



EDITOR'S CORNER

RANDY NELSON

Another golfing season is about to end once again. Although many of you are no doubt relieved to have another year under your belt so to speak, I still feel a letdown at this time of the year. I guess it is because I enjoy playing the game so much and I hate to put the clubs away for the winter. Fortunately, this winter I will be able to enjoy two golf outings to the south.

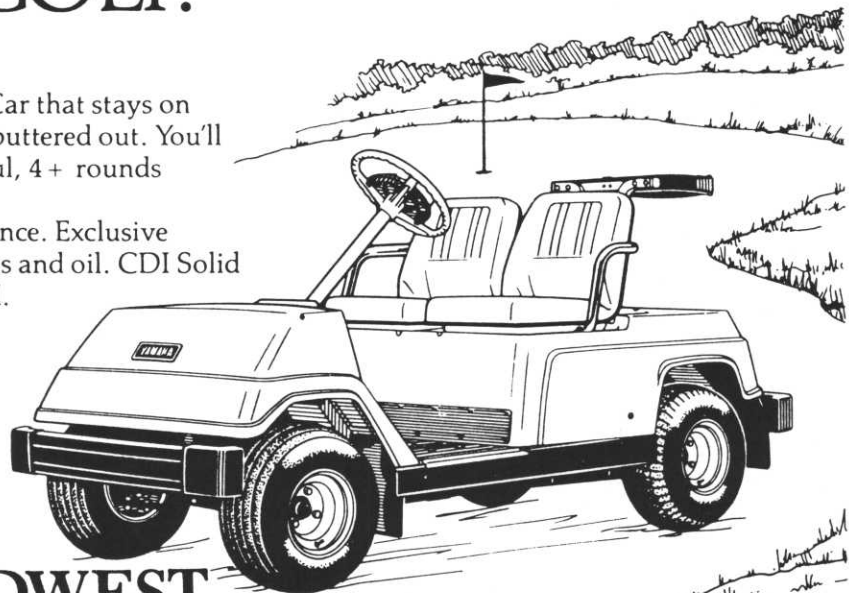
If you were unable to attend the October meeting at Wedgewood Valley Golf Course you missed the chance to see a beautiful golf course encompassed by a very exclusive housing development. The owners of these people are definitely upper

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