

A golf course irrigation system designer from Ohio and New York reports:

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Rotor Pop-Up 41



**Look at the record.** Las Vegas finest — the Tropicana and Stardust golf courses are relying on completely automatic Rain Bird Rotor Pop-Up systems to keep them in top condition year 'round. Many country clubs are replacing present equipment with the Nelson-Rain Bird line. All across the country, it's the same story. Definitely, the trend in golf course sprinkling equipment is to Nelson-Rain Bird — the fastest growing line of its kind in the world! Don't follow the leader — *be* a leader: specify Nelson-Rain Bird!

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609 West Lake Street, Peoria, Illinois

The new layout, representing a total investment of \$2,600,000, was opened in May, 1949. The Georgian colonial clubhouse was located between the Nemours course and the new course, which was given the name of "The DuPont". Nine holes of the original DuPont course were salvaged, giving the club a total of 45 holes. In 1955, the 18-hole "Louviere Course", near Newark, complete with a small scale clubhouse, was opened to further meet the growing golf demand.

### Clubhouse Has Many Features

A feature of the main clubhouse is a combination ballroom and auditorium, with tall fanned window-doors opening onto a spacious porch. Below this is a sundeck and the golf course. The ballroom balcony is a broad mezzanine, suitable for private parties. Living quarters for resident personnel, and storage space, are off the mezzanine.

The ground floor, with entrances at both sides and both ends of the building, houses the men's lockerroom, golf and tennis shops and the grille, where members gather informally. In the west wing of the building is a special game room for adults.

Nationally known orchestras are engaged to play for dancing in the main ballroom. From five to ten such events may be scheduled in a year. Local orchestras also play for weekly dances.

### Louviere Is Toughest

Par at the three main courses is 72-71-36. Par at the Louviere course is 70. The Louviere course was designed by William F. Gordon, of Doylestown, Pa. It is probably the toughest of the DuPont layouts. Its 6,210 yards from the middle tees can be extended to 6,573 yards for championship play. The course was carved out of hilly terrain with one hole, the 10th, having a drop of 160 feet in 200 yards. Many of the holes are cut through virgin timber with tantalizing, small water hazards winding through them.

It is not heavily trapped but because of its design it calls for position shots. It is one course rated to play tougher than its par.

The DuPont course was designed by Alfred H. Tull, Larchmont, N.Y. architect, who had laid out the older Nemours course. The DuPont is marked by natural hazards of water, woodland, and rolling terrain. It is 6,580 yards with a par of

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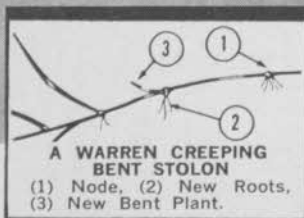
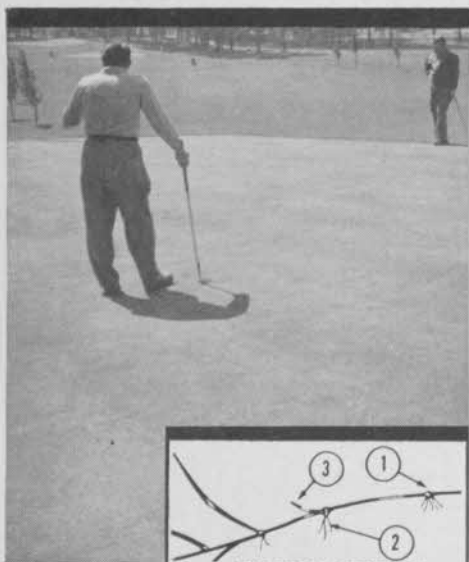
**WIDE SPACING** in and between nursery rows gives these Bowhall Maples plenty of room to develop top and root growth without crowding.



**ORIGINAL BOWHALL RED MAPLE.** This late Fall photograph shows the prolific branching and symmetrical, upright form of this low-branched, 20-foot lawn specimen. With low branches removed it is an excellent, colorful variety for street planting in limited space.



**COLE'S SUNBURST** (Plant Pat. 1313) is one of four modern Honeylocusts with distinctly different characteristics of size, shape and color developed and patented by Cole. The two-color Sunburst at left, with its brilliant yellow branch tips, has a spectacular effect in any landscape.



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71. Three holes each measure 500 yards or more. The longest is No. 16, which is 552 yards and requires a drive across Husband's Creek. No. 18 crosses both branches of the creek. The back 9 was cut out of a wooded area considered to be the most beautiful part of the course.

In designing DuPont, consideration was given to the accommodation of spectators for tournaments. Within a radius of 200 feet in the center of the course, it is possible to watch the action on three tees and three greens. When the DuPont course was built, adjustments were made to the older Nemours course to make the starting and finishing holes accessible to the new clubhouse.

This then is the DuPont Country Club, a unique employee recreational facility, sponsored by management but run by the employees. Perhaps all companies cannot afford the scope of the DuPont golf operations, but the guidelines are nevertheless there for some phases of it to be adopted by other industrial firms seeking to help satisfy the hunger for golf and provide extra fringe benefits for employees.

### Seedbed Protection

(Continued from page 52)

ment are retarded. The rotting straw adds organic matter to the soil.

A tool known as a "Wheat Land Packer" often is used on loose seedbeds and flat slopes to "tuck" straw into the soil where it is anchored against movement with a portion left protruding to reduce wind and surface water movement. This method is particularly useful for large flat slopes on the golf courses.

### Nets — Cloth Mesh

When "gunny sacks" were cheap and plentiful they would be split open and used to cover new seedlings. They were very effective, but it was necessary to remove them at just the right time to avoid smothering the tender (often yellow) grass seedlings. If the hot sun hit the new grass just right, it meant seeding all over again. Rots and molds often made the sacking completely unfit for re-use. Cheesecloth sometimes was used to mulch new seedlings.

The natural outgrowth of the use of burlap sacking was the development of a similar material with larger meshes to lessen the cost and to let the developing grass have more sunlight. It was optional

# WHY SETTLE FOR A SPRINKLER SYSTEM THAT'S NOT "PAR FOR THE COURSE?"

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- **Bulletins on Turf Culture** — No. 1 "Role of Lime", No. 2 "Better Bent Greens", No. 3 "Better Northern Fairways", No. 4 "Fertilization Handbook".
- **On-The-Spot Visits** — Personal consultation on your turf problems.
- **Soil Testing** — by the MILORGANITE laboratory. Ask your distributor for Soil Sampling Bags.
- **Attendance and Participation** in local, regional and national Turf Conferences.
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whether to leave the erosion-resisting net in place to rot away under the grass, or to carefully remove it so that it could be used in another location. Today, we have a specialized net called "Mulchnet," an inexpensive wide mesh paper fabric designed to be rolled out on top of a straw mulch to hold the straw in place. It can be tacked down with long metal staples. Another fabric is called "Erosionet" which is to be rolled out on seedbeds after fertilizing and seeding. It replaces straw and devices to hold straw in place. The open mesh fabric made of twine forms millions of tiny dams that catch water and soil and hold the seed and fertilizer in place.

### Performs Several Functions

A highly specialized fabric or grass blanket called "Troyturf" has been on the market for years. When it is rolled out on a smooth graded soil surface it performs these functions: (1) controls erosion (2) furnishes starter fertilizer (3) has the Blue Tag certified seed imbedded in the mesh along with an organic "potting soil" and a controlled-release source of nitrogen. In practice the blanket (in wide

rolls) is rolled out on the graded soil, secured with staples, watered and rolled to bond it to the soil surface and to start the seeds germinating. Any kind of seed can be incorporated into the mat. Everything needed for successful growth, even on subsoil, is incorporated into the blanket.

Recently, a heavy jute fiber net has been developed for lining the bottom and sides of ditches and flumes where a strong flow of water is anticipated. Another material now in experimental installations is a Fiberglass blanket which so far promises little in connection with grass seedings.

### Asphalt Mulch

In this process a special type of cut-back asphalt is sprayed on the fertilized and seeded area. Upon exposure to air, the asphalt hardens and forms a lattice-work "skin" over the soil. Air and moisture can move into the soil through the protective covering and seedlings have no difficulty in finding ample openings into the atmosphere. No detrimental chemical effects have been noted. Where excessive

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quantities are involved, the soil surface may be sealed so grass cannot emerge.

**Elastomeric Emulsion Spray Mulch**

The Alco Company has developed and tested a material known as Soil-Set, a product of polymer chemistry. It is a water-diluted polymer emulsion which is sprayed on a fertilized and seeded area with ordinary spraying equipment. Heavy rains are caused to run off without erosion damage, yet the insoluble rubbery "skin" is coarse enough to insure germination. Moisture in the soil is condensed under the covering (as under the polyethylene sheet) and not allowed to evaporate. Under certain conditions of intense heat and direct sunlight, the darker-colored films may absorb so much heat that germinating seeds may be damaged. Lighter colored film will reflect the heat and keep the soil cooler. The film over the soil gradually decomposes and leaves a granular, absorptive surface. As the grass grows and covers the soil the film disappears. Advantages of this rubbery "skin" are: (1) it is nonflammable; (2) has no weeds; (3) is chemically inert; (4) is non-toxic; 5) there is no induced nitrogen deficiency. Tests are in progress to determine the value of Soil-Set for treating

newly planted sprigs and stolons.

**Wood Cellulose Pulp Mulch**

One of the more promising methods now in use on courses and highways employs the Finn Hydroseeder (a familiar machine in highway slope seedings) and a wood cellulose pulp, a product of the paper industry. International Paper Co. has conducted research and many successful demonstrations with its Turfiber on courses, highways, and lawns. In practice, the hydroseeder of 500 gals. capacity (some hold 1,000 gals.) is filled with water. Into this tank is dumped the dry, fibrous, green-tinted wood cellulose pulp at a rate to supply 1,000 lbs. to the acre. Fertilizer is added, then the seed, also limestone, if soil tests show the need. Agitation with an impeller is continued until the tank is filled with a homogenous slurry (soup). The powerful engine on the hydroseeder then forces the slurry through a specially-designed pump. The operator directs the discharge nozzle so that the spray covers the prescribed area uniformly. Thus, in one operation, a prepared seedbed can be limed, fertilized, seeded and mulched. No further attention is necessary.





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In a prepared newspaper release an officer of International Paper Co. made no claim that Turfiber would control erosion, indicating that its principal use is to form a protective porous "felt mat," which insures moisture and rapid germination and establishment. But in actual practice, it has been noted that erosion is checked to high degree where the Turfiber installation has been properly made.

One use to which this new method has been put is in covering newly planted stolons of bentgrass or sprigs of Bermuda-grass. Unless vegetatively planted grasses are kept moist continuously, their establishment can be severely retarded by drying periods, even of short duration. The cellulose fiber cover retains moisture and eliminates the need for constant watering.

## Research Reports

Richardson & Diseker, studying control of road bank erosion in Northwest Georgia, reported in the *Agronomy Journal*, Volume 53, No. 5, that they used several mulch materials for temporary protection of initial stand establishment of several grasses and legume species. Crop straw mulches at 1 and 2 tons to the acre after seeding improved the stand and

## Watch for This

Every golf club in the U.S. is being mailed a form card on which space is provided for names of operating personnel entitled to receive GOLFDOM. Unless this card is filled out and returned, we cannot continue mailing GOLFDOM to these people.

If your club failed to receive this card or misplaced it — use the form on page 176. Our circulation auditing association requires that the list of persons to whom GOLFDOM is mailed be kept up to date. Without this updated information we are instructed to stop mailing the magazine to old names on our list. To make certain that your 1962 officials and operating heads receive GOLFDOM, please fill in the form and mail it today!

growth of most plants by anchoring the seed, reducing fertilizer losses, and insulating seedlings against frost damage. "The protective effect of mulches by absorbing raindrop impact and lessening both sheet and rill erosion were outstanding when heavy rains followed shortly after seeding," they reported.