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

“Permanence and freedom from corrosion make Transite ideal for golf course irrigation systems.”

Walter R. Hennessey, The Skinner Irrigation Company, Troy, Ohio

“In designing hundreds of irrigation systems for well-known golf courses in both the East and Midwest, we have found Transite to be the ideal pipe. Its quick, easy assembly and adaptability to course terrain provide important installation savings.

“Transite’s exceptionally high water-carrying capacity, corrosion resistance and permanence, reduce the long-range operating costs of a system. Maintenance is virtually eliminated for there are no contributing elements in this asbestos-cement pipe to clog sprinkler heads. Transite is indeed a pipe that brings many economies to both our company and our customers."

For details on Transite® Irrigation Pipe, write to Johns-Manville, Box 362, GO-4, N. Y. 16, N. Y.

In Canada: Port Credit, Ont. Cable: Johnmanvil.

JOHNS-MANVILLE

April, 1962
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 "Louviers 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.

Louviers Is Toughest

Par at the three main courses is 72-71-36. Par at the Louviers course is 70. The Louviers 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
Improved Cole Trees for 1962

Patented modern varieties and all of the best old standards refined by expert breeding and cultivation.

The Original Bowhall Red Maple at right is typical of the "new look" in healthy, vigorous trees available to you in wide variety and ample quantity from the Cole Nursery Co.

For many years Cole has specialized in the development of new trees and improvement of old favorites to meet modern landscaping trends. One of the most important features of our advanced, cost-saving, mechanized nursery methods is the promotion of dense, compact root growth on all Cole trees and nursery stock.

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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.

WIDE SPACING in and between nursery rows gives these Bowhall Maples plenty of room to develop top and root growth without crowding.
A WARREN CREEPING BENT STOLON
(1) Node, (2) New Roots, (3) New Bent Plant.

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more nodes per bag . . . only a mini-
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tion in each roll.

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 Pack-
er” 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 seedings. 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 seedling 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 les-
sen the cost and to let the developing
grass have more sunlight. It was optional
Two types of ORANGEBURG Brand plastic pipe—SP and ABS—give you a choice of modern pipings for golf-course irrigation:

Orangeburg SP is a flexible polyethylene pipe so tough it’s guaranteed and bonded for 20 years for cold water service! It won’t split or pinhole, rot, rust or corrode. It resists creep, kinking, abrasion, chemicals, high pressures and temperatures. Quickly cut with a hacksaw, it is easy to handle and lay, and so light a man can sling a 300 foot coil on his shoulders. A variety of fittings adapt it to any type piping arrangement. Shipped in neatly wrapped coils, in \( \frac{3}{4} \)" to 2" sizes.

Orangeburg ABS is a semi-rigid, competitively priced plastic pipe, light in weight, easy to handle. Its outside solvent welded joints assure uninterrupted flow at pressures up to 150 psi. Rust and corrosion-proof, it is built for years of service in rugged use. Furnished in 20' lengths, \( \frac{1}{2} \)" to 4" sizes.

Write Dept. G-42 for complete information and specifications.

ORANGEBURG BRAND

SP & ABS Plastic Pipe
You probably have used at least one of the Free services provided by the Producers of MILORGANITE — The Natural Organic Fertilizer. In order that you may be familiar with all of these Free services, here is a complete list of them:

- 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.
- Field Testing — Nationwide — of materials and methods to improve your turf.
- Turf Service Bureau — Staffed by MILORGANITE Agronomists to answer your questions on Turf Culture.

If you want to know more about these services, or the name and address of your Milorganite Distributor, write...

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GOLF CLUBS USE MORE MILORGANITE THAN ANY OTHER FERTILIZER

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 Fiberglas blanket which so far promises little in connection with grass seedings.

Asphalt Mulch

In this process a special type of cutback 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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Lansdale, Pa.

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 nontoxic; 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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ORMOND (Everglades 3)

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 ensures 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 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.

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!