93 pounds of rye seed.

Pre-seeding fertilization, seed bed preparation and subsequent care until the seedling grass becomes well established are the secret of success with overseeded winter grass.

**Nitrogen Held Back**

When rye was used the best fertilizer practice was to use phosphate and potash liberally before seeding, and wait with nitrogen until after the rye started growth, or about three weeks after seeding. Additional nitrogen makes seedlings more succulent and increases the danger of loss from damp-off diseases.

The seed of other cool season grasses is much smaller so seedlings need nitrogen right from the start. This is especially true of bentgrasses. Organics can be used to bulk the seed. Their nitrogen will be released as needed by the young grass. Where soluble fertilizers are preferred, their use should start soon after seedlings merge. The use of a good fungicide, capable of preventing pythium type of damp-off fungus disease, is recommended before seeding, and weekly thereafter if the weather is hot and humid.

Seed bed preparation is very important. Opinions differ as to the best method. Aerifying should be finished three to four weeks before seeding. A tufted growth occurs when greens are aerified just before seeding. Seedlings grow much faster in the aerified holes. Spiking does the same thing unless spiking is done enough times to prepare a very good seed bed.

**Purdham's Method Explained**

Harry Purdham at Pine Tree in Florida cross mows the greens with the mower set to cut very close. Then the verticut is used twice, crosswise the second time. The verticut reel contains double the number of knives. Purdham substitutes washers for the original spacers to accomplish this. The debris is removed with a Springfield sweeper. Fertilizer is applied and seeding is in several directions to insure even distribution. Then the green is matted with a flexible steel mat and seed is covered with a top-dressing.

Others aerify or spike, fertilize and top-
Wright Garrett, U. of Houston representative, who is holding the trophy, beat Dave Eichelberger, who is holding the platter, in the final of the 61st Trans-Mississippi Amateur in early July at Broadmoor GC in Colorado Springs. Garrett won a 3 and 2 decision over the 36-hole route. At left is D. P. Stephenson, president of the Trans-Miss GA. Also in the photo is Dow Finsterwald, Broadmoor's head professional.

dress generously about a week before seeding. Another light top-dressing is applied to cover the sod. It is important not to use too much topdressing then because a heavy dressing buries the small bent grass seed so deep that much of it does not become established.

Water management after seeding is extremely important especially when the weather is windy or hot. It is very important to keep the surface soil continuously moist, but not wet until the seedling grass becomes well established. This way requires light showering four to five times daily, seven days a week, for the first couple weeks. On a windy day, seedlings can wither and die in a matter of a couple of hours if the soil becomes dry. This has been the cause of grass failure in too many cases. Many supts. prefer to water by hand, using a rose nozzle, for the first couple of weeks, then changing to regular sprinklers after the seedling grass is off to a good start.

PGA Championships

Sites for the next three PGA Championships already have been selected. Next year the Championship will be played at Laurel Valley in Ligonier, Pa. In 1966 it goes to Columbine CC, Littleton, Colo, and in 1967 to Firestone in Akron.
activity starts in the spring. Start the program early enough in the fall to allow plants to "harden off" for maximum winter survival.

How to Convert

Q. We have a few greens that originally were seeded to Colonial and Highland bents. During a recent attack of dollarspot we nearly lost these greens in spite of a good nitrogen feeding program. Each time we changed cups we would throw away the old plug and use a fresh Penncross plug from the nursery. Not one of those Penncross patches had a single dollar-spot. My chairman and I agree that we should convert to Penncross but we are not agreed on the method. We do not want to rebuild and keep the green out of play. Can you help us? (Michigan)

A. To keep the greens in play and to preserve contours, I suggest multiple spiking followed by hydroseeding 1/2 pound of Penncross seed to 1,000 sq. ft. You can do this twice a year at low cost, using your power sprayer, and gradually convert to Penncross. Space prohibits giving detailed instructions here. Send a self-addressed, stamped envelope for a mimeographed sheet on hydroseeding to GRAU, College Park, Maryland, 20740.

"Seeding" with Algae

Q. Our lakes on the course constitute our water supply. There has been no rain for weeks and the water is low and green with algae. We know that we are "seeding" our greens with algae every time we water but we can't help it. We don't dare try to kill the algae in the lakes because of our wild life. Is there anything we can do to counteract the algae? (Texas)

A. Yes, you can irrigate heavily at the longest possible intervals to keep the greens surfaces as dry as possible. Algae can thrive only with continuous ample moisture. Spiking the dry greens surfaces will let air through the algae crust. Periodic light dusting or spraying with hydrated lime will effectively reduce algae with no harm to the grass. Use one-quarter to one-half pound hydrated lime to 1,000 sq. ft. Apply in late afternoon and allow lime to remain on leaves overnight. Pray for rain. Hook up to city water.

Change in Fertilizer

Q. "For the last several years we have used ureaform (38%) as the principal source of nitrogen on our putting greens. Recently we were advised by some students that this is wrong and that it would be better to make weekly applications of soluble urea (45%). What is your opinion?" (Indiana)

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A. Urea has a price advantage (per pound of N) but weekly treatments will be far more costly in terms of labor. Ureaform builds residual N in the soil which permits you to supply a year’s requirement in four applications. Urea must be applied weekly in small doses to avoid burning. Urea creates no reservoir of residual N to let you “coast” through the hot months.

Everything considered you probably should stay on your residual nitrogen program.

Fairy Ring Infestation

Q. “We have fairy rings in several parts of our course. They are unsightly and occasionally we lose grass. The soil always seems dry and it smells like mushrooms. What are your suggestions?” (Ohio)

A. Since a mushroom fungus (one of several) is responsible for your fairy rings, it is quite natural for the soil to look grey and to smell like mushrooms. The hyphae (fungus mycelia) trap air in the soil so that water runs off as off a duck’s back. It seems that the best approach is (1) to puncture, spike, aerify or otherwise make a lot of holes in the soil; (2) apply a long-lasting insoluble nitrogen fertilizer to encourage bacterial activity; (3) water gently and frequently to thoroughly wet all parts of the soil. Soon the dry-looking areas will be green and vigorous. They should stay that way if the program is repeated when needed.

Programs of removing soil to a foot in depth and refilling with new soil are expensive and seldom successful. Some attempts have been made with fungicides but so far no firm recommendations have appeared. Wetting agents could be helpful in initial wetting of the fungus-filled soil.
Amateur Qualifying Round to be Played at Canterbury

For the first time since 1946, competitors in the USGA Amateur, Sept. 16-19, will qualify at the site of the tournament, Canterbury GC in Cleveland, O. Sectional qualifying rounds of 36 holes will be held at 41 sites in 33 states in late August and early September. The 149 golfers who pass the initial test will compete against Deane Beman, 1963 USGA Amateur champion, in a 36-hole qualifying round at Canterbury on Sept. 14-15. The 64 low scorers will compete in match play for the championship.

August 12 Deadline

Entries must be received by the USGA, 40 East 38th St., New York, N.Y. 10016, by 5 p.m. on Aug. 12. Male amateurs with handicaps of three or less are eligible. U.S. residents must be members of USGA regular member clubs. Excluded from these eligibility rules are semi-finalists in the 1964 Public Links and Junior Amateur championships who will be invited to compete in sectional qualifying rounds regardless of club affiliation or handicap.

Swinging Around Golf

(Continued from page 25)

hole course for New Brunswick, N.J., probably will be ready in 1966 . . . Night-time golf at Salisbury Park in East Meadow, N.Y., is bringing protests from residents living nearby.

Pro Henry Picard is resigning his Canterbury CC post soon after the USGA Amateur is played at the Cleveland club, Sept. 14-19 . . . Under consideration as Picard's replacement are 40 pros . . . Moslem Springs GC in Reading, Pa., designed by George Fazio, officially opened on July 1 . . . New Talbo CC in Easton, Md., has Don Beech as pro . . . Talbo was designed by Edmund Ault . . . Three baseball stars, Mickey Mantle, Jim Bouton, and Ralph Terry, have teamed up with golf pro, Jerry Volpe, to purchase tract near Morristown, N.J., for course development.

Chuck Shirey has left the Country Club of York, Pa., where he has been located for the past 36 years, to manage the new keep electric car PROFITS UP . . .

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J. C. (Bud) Waltens, pro at Prestwick CC, Frankfort, Ill., Herb Graffis, Golfdom’s editor, and Clyde Clark, Prestwick member, examine club and ball used by Andrew Strath in winning the 1865 British Open at Prestwick in Scotland. Clark got the relics from a cousin who lives in Scotland and donated them to the Frankfort club. Waltens also holds an early history of the Scottish club.

Pleasant Valley GC in Stewartstown, Pa. . . Hardee County, Ga., has received approval from the Farmers Home Administration for a $160,000 loan to build a 9-hole course . . . Rockland, Mass, opened many late in June . . . Construction of 18-hole course being built in conjunction with 100-room motel and resort hotel near Lancaster, Pa., was delayed as developers drilled for water . . . Lack of water had almost caused abandonment of the partially completed course . . . City water officials estimated that lines to the course would cost over $300,000 and indicated that they would pick up 1/3 of the tab, but the developers decided to drill and came up with several wells.

Sixth annual Italian Invitation tournament to be played at Tuckaway CC, Milwaukee, Aug. 31, with beneficiaries being Boys Town of Italy and Chick Evans caddie scholarship fund . . . Toney Penna will be guest of honor . . . Sam Urzetta will defend his title . . . Jimmy Crossan teaching at range in Pasadena, Calif . . . He was a mentor of such fine teachers and players as Wiffy Cox, Jimmy Hines, Jack Drucker and Guy Paulsen.

General Chairman Fred Leveque, tournament manager, Nick Popa, and Ward Case, J. H. Fulford, Earl Hamilton, Kacy Jones, William E. McDonald and wife, and the heads of 20 committees conduct-
ed the best organized tournament you would want... It was hotter than a bomb explosion during PGA week and without the smooth organization and people with the class to keep calm, the heat would have had tempers boiling.

Club manager, Don Boyd, with a big new clubhouse not much past the shake-down cruise stage, got a flock of tournament operation experiences from his companion of Hoosier club management days, Lon Martin who is general manager of Congressional CC where the 1964 National Open was planned and played... Boyd and his wife and top aide, Kathryn, got Martin's material and considerable other information compiled into the only practical and complete manual of major tournament operation from a club manager's position that we've seen... We'll have more about this in a later issue of GOLFDOM.

Don Shock, his top assistant, Bill Collins, and the rest of the pro shop and caddie department outfit were set up in great shape... Shock, whose father has been pro at Hills and Dales in Dayton, O., for years, and who started with Char-ley Lorms as assistant in 1949, had the pro shop laid out to handle heavy traffic with excellent sales exposure... Shock succeeded Lorms when Charley retired

Leonard Mendelsohn (r) an attorney and president of the California GA recently was named to the L.A. county parks and recreation board. He is shown with Kenneth Hahn, county supervisor, and Judge L. A. Rittenband, who swore in Mendelsohn. Hahn pointed out that Mendelsohn will help him in his effort to get more public courses for L.A. area.

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in 1959 after 38 years as pro at Columbus CC . . . There is a bronze table on a huge stone at the club expressing the members gratitude to Charley Lorms.

As usual, an unsung hero of the show was Bob Mueller, the supt. . . . Humidity, high temperature and a cloudburst provided one of those combinations that could have had the 18 greens, fairways and tees going from perfection to a ghastly condition overnight . . . Anybody who needs to be reminded what the cooperation of progressive supt.s, turf scientists, the green section and manufacturers of fungicides and other preventive and curative chemicals have done for golf course maintenance, needs only to consider how all that effort helped Bob Mueller at Columbus and John Henley at Congressonal, when they had big championships to contend with.

Bob Baldock, architect, with headquarters in Fresno, Calif., has been averaging about 90 hours a month in his Cessna 310 traveling between jobs, eleven of which are in California . . . Others are in five other states . . . Among Baldock jobs under construction are 18 at Glasgow AFB in Montana, 18 at Hickham AFB in Hawaii, 18 at Jackson Hole G&CC, Jackson, Wyo. . . . Six courses of Baldock design have been opened this year: Lindale in Sacramento, Comstock in Davis in the Sacramento area, three others in California and Alta-Sierra in Grass Valley, Los Robles Green at Thousand Oaks and Concord municipal, and Reno (Nev.) muny.

Miami Lakes CC in Miami area has been getting lots of publicity on its tourney program with an aviation league tournament among 126 golfers of airlines based in Miami giving the schedule an international flavor . . . NBC announcers during National Open gave one good boost to golf course manners in calling attention to the pros who repaired ball marks on greens.

A series of articles written by veteran Runcie Martin in collaboration with Duluth area pros, that ran recently in the
Duluth News-Tribune, is a great job of pro public relations . . . A thrilling report of what a club pro does in helping people enjoy life was the article Martin did with Caesar Tiziani, pro-manager at Gogebic CC, Ironwood, Mich., on teaching physically handicapped persons.

Frank Emmet, supervisor of the Washington (D.C.) District GC Junior program, is credited by numerous people with having done more than any other individual to develop Junior golf . . . Washington set-up for schoolboy golf is worth copying in other major cities . . . Three of the finest men among thousands of admirable gentlemen we’ve met over the years died in recent weeks . . . Col. Lee S. Reed of Louisville, long active in Southern Kentucky and USGA organizations, died in Louisville . . . Ed Livingston, 65, and pro at Minnehaha CC, Sioux Falls, S.D., for 20 years and before that pro at the Glenridge, Vermillion and Elmwood clubs in the state, died of a heart attack . . . Ed was a high school and U of S.D. basketball and football star and a basketball official . . . Tom Kerrigan, who was pro at Siwanoy CC, Bronxville, N.Y., for 48 years and before that at Dedham (Mass.) CC, passed away in June.

Joseph E. Zavodny, now pro-manager of Amherst-Audubon municipal course in

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Williamsville, N.Y., Town of Amherst has another course, Oakwood, which may have a second nine built soon . . . Zavadny has 92 kids in his Junior classes . . . He is assisted at the club by his son . . . Smart business in repaint ball bowl on counter of pro shop of Hubby Habjian, pro at Onwentsia Club, Lake Forest, Ill. . . . Sign on bowl reads: "For juniors only — 5 for $1" . . Hubby and his staff have large classes of juniors . . . President of Onwentsia is Robert A. Gardner, Jr., whose late father was the National Amateur champion in 1909 and 1915.

Small Business Administration in late press release listed three course loans totaling $179,417, and two miniature course loans for a total of $13,500 . . . Joe Novak, pro emeritus at Bel-Air CC, Los Angeles and former president of the PGA, in good condition and playing again after surgery . . . Joe and Bill McDonald, chairman of the PGA advisory committee, are two Butte, Mont., natives who became celebrated in golf . . . Bill and others of the advisory committee, presented the PGA executive committee with the Horton Smith and Ed Dudley memorial trophies during the PGA championship at Columbus . . . One trophy is to be awarded to a professional for outstanding work in club service and pro business development phases, and the other to a playing professional for exceptional service to the game.

Shanty Creek Lodge in the Traverse Bay area of Lake Michigan, owned by Roy Deskin, steel and aluminum magnate of Michigan and Arizona, to have golf course designed by Bill Diddel . . . Shanty Creek Lodge already is a popular ski resort . . . Manager is Pete Martin who managed Orchard Lake and Pine Lake clubs in the Detroit district . . . Diddel expects course will be playable in June, 1965 . . . Brilliant job of converting a tropical swamp and a bit of jungle in building of the Sebring Shores, Fla., Par-3 course . . . Hans Schmeisser was architect and builder for the developer, Robert E. Sherwood . . . The layout is on the rim of Sebring, Fla., which is TROUBLE FREE!
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