

New Blood Needed; Snowmold Complications; The South Develops Selective Grasses

By O. J. NOER

After the disastrous summer of 1955 it is only right that a good one follows. Excepting for local spots, the season of 1956 will be remembered as one of the best for golf course turf. One supt. made a very apt statement. He said: "This year has been the easiest one in ten years for me". Troubles occurred during brief spells of bad weather in localized areas or were the result of faulty management*mostly associated with water usage.

The need for good young men to replace aging supts. is acute. It is difficult now to locate the right kind of man and will become impossible before long unless clubs make the supt's position more attractive. The salary must be commensurate with positions of equal responsibility in industry. Provision for retirement pay is also necessary. Not until then can a golf club expect to attract an ambitious young man. The same is true to some extent of the foreman and key workmen. It is impossible to keep grass during a trying year like 1955 with irresponsible or inexperienced temporary help. Every club needs a core of permanent employees, assured of year around work, at a pay scale*comparable with industry. Then, it becomes feasible to augment the force with college students for summertime work. They can be used for less exacting jobs so trained personnel can concentrate on the exacting ones — watering, fertilization, fungicide, insecticide and herbicidal applications.

Constructive action to better working conditions is not likely except at a few clubs. The rapid turnover in club officials makes it impossible. The GCSA, PGA, and Club Managers Assn. might help bring it about by forming a permanent committee from their respective membership to explore the problem and arrive at a workable plan. Some official of the USGA who is experienced in these matters could

render valuable service to such a committee. The final plan must be fair to everyone, both the employer and the employee; otherwise, it will fail of adoption or soon become inoperative.

The winter was a very severe one in some places, particularly in the Prairie Provinces of Canada. *Poa annua* took a terrific beating there and was very slow coming back. Greens were bad until the first half of July and many were not really good until the end of that month or later. Snowmold was especially bad. The causal organism is said to be of a different and more virulent type. In normal years phenyl mercurials, Tersan, etc., have been effective in combatting snowmold. This year Calo-Clor and straight Corrosive Sublimate seemed better with a slight preference for the latter.

There was snowmold in other regions. The old true strain of Washington came through in good shape and Congressional (C-19) gave a good account of itself. On the creeping bent nursery at Royal Ottawa Golf Club Toronto bent (C-15) was not attacked, but snowmold was moderately severe on Pennlu for the second straight year. Both strains got preventative treatments of Calo-Clor in the late fall at identical rates and at the same time.

One club in Minnesota never controlled snowmold effectively on its Seaside bent greens until this past winter. Seaside is one of the more susceptible bent grasses. The club adopted one of Dr. J. R. Watson, Jr.'s methods, evolved on the experimental green at the Toro Research center. Calo-Clor was used dry in November mixed with an activated sludge, and at 25 to 30 per cent more than the usual dosage. Anybody wanting more information about Dr. Watson's snowmold work should consult his article on page 88 of this issue of *GOLFDOM*.

A superintendent in Toronto failed to treat until after greens were covered with snow. Calo-Clor was applied dry mixed with sand. Disease control was good, but the workman's



(Left) R. F. Lawrence converts Indian Creek fairways to Ormond strain of Bermudagrass. He gets planting stock by permitting extra growth in strip along edge of fairway. A Javi sicklebar machine cuts close, clippings are scattered across fairway and cut in with a disc. (Right) Lloyd Scott looks over Merion Bluegrass tee at his club that is five years old. His secret: Fertilize generously once a month; water sparingly.

footprints burned the grass. Recovery in the spring was late. The application was made during a temporary thaw. Burn was caused by the wet snow. The same thing has been done many times without any burn. The fungicide was applied on top of dry snow.

Ice Removal Secrets

At a "bull session" during a Minnesota Turf Conference, an Eau Claire Wis. supt. mentioned his secret of ice removal from greens. When honeycombing and melting starts he scatters a hundred pounds of activated sludge over the green. The ice disappears in no time at all. J. L. Haines of Denver does the same thing with powdered charcoal; so it looks like a heat exchange phenomena.

Several new grasses have appeared . . . some for the cool season regions and others for the South. They include Penncross, Pennlawn, and in the South selections such as

(Continued on page 69)

These Photos Suggest Some Do's and Dont's for the Supt.



Maleic hydrazide stopped seedhead formation in creeping bent plots at Purdue University irrespective of rate used.



(Left) Footprint injury was result of applying corrosive sublimate for snowmold control on green covered with melting snow. (Right) Soil sterilization is carried out with Vapam. It is important to water the material in immediately after application.

TORO

Authorized Distributors

Spring, Md. Florida: Zaun Equipment Co., Jacksonville; Hector Supply Co., Miami; McGowin-Lyons Hdw. Co., Mobile. Alabama: Shaw Lawn Mowing Equip. Co., Phoenix. Arkansas: Choctaw, Inc., Memphis, Tenn.; Harry Cooper Supply, Springfield, Mo. California: Pacific Toro Co., Los Angeles; California Toro Co., San Francisco. Colorado: Colorado Toro Co., Colorado Springs; Colorado Toro Co., Denver. Connecticut: Toro Equipment Co., White Plains, N. Y.; Connecticut Toro Sales Co., Windsor. Delaware: Philadelphia Toro Co., Philadelphia. District of Columbia: National Capitol Toro, Inc., Silver Springs, Md. Florida: Zaun Equipment Co., Jacksonville; Hector Supply Co., Miami; McGowin-Lyons Hdw. Co., Mobile. Georgia: Toro Turf Equip. Co., Atlanta; Zaun Equipment Co., Jacksonville, Fla. Idaho: Washington Turf & Toro Co., Seattle. Wash. Illinois: Geo. A. Davis, Inc., Chicago; L. J. Meisel Dist. Co., Clayton, Mo.; Tri-State Toro Co., Davenport, Iowa; Seruggs Drake Equipment Co., Decatur; Heldt Monroe Co., Evansville, Ind.; Drake Seruggs Equip. Co., Springfield, Indiana; Geo. A. Davis Co., Chicago, Ill.; Heldt Monroe Co., Evansville; A. H. Heine Co., Fort Wayne; Kenney Mach. Co., Indianapolis; B. K. Cohee Co., Montgomery, Ohio. Iowa: Globe Mach. & Supply Co., Cedar Rapids; Tri-State Toro Co., Davenport; Globe Mach. & Supply Co., Des Moines; Z. W. Credle Co., Omaha, Neb. Kansas: Turf Equip. Co., Inc., Kansas City, Mo. Kentucky: Wilson Equip. Co., Lexington; B. K. Cohee Co., Montgomery, Ohio; Heldt Monroe Co., Evansville, Ind.; Buntin Seed Co., Louisville. Louisiana: Whalen Toro Co., New Orleans. Maine: Phillip R. Yerxa, South Portland. Maryland: Baltimore Toro Co., Baltimore; National Capitol Toro Co., Silver Springs. Massachusetts: Springfield Toro Co., Agawam; The Clapper Co., West Newton. Michigan: R. L. Ryerson Co., Milwaukee, Wis.; C. E. Anderson Co., Royal Oak; Spartan Distributors, Sparta. Minnesota: Minnesota Toro, Inc., Minneapolis. Mississippi: Choctaw, Inc., Memphis, Tenn.; McGowin-Lyons Hdw. Co., Mobile, Ala.; Whalen Toro Co., New Orleans, La. Missouri: Lawrence J. Meisel Dist. Co., Clayton; Tri-State Toro Co., Davenport, Iowa; Turf Equip. Co., Inc., Kansas City 2; Harry Cooper Supply, Springfield. Montana: Montana Toro Sales Co., Billings; Manions, Kallispell; Salt Lake Hdw. Co., Salt Lake City, Utah. Nebraska: Z. W. Credle Co., Omaha. Nevada: Salt Lake Hdw. Co., Salt Lake City, Utah; California Toro Co., San Francisco, Cal. New Hampshire: The Clapper Co., West Newton, Mass. New Jersey: Toro Equip. Co., White Plains, N. Y.; Philadelphia Toro Co., Philadelphia, Pa. New Mexico: The Myers Co., Roswell; Colorado Toro Co., Denver, Colo.; Salt Lake City Hdw. Co., Salt Lake City, Utah. New York: Eaton Equip. Co., Hamburg; Hudson Toro Sales Co., Latham; Chas. E. Lennon & Sons, Liberty; Haverstick Toro Sales Corp., Rochester; James H. Lynch, Southampton; Golf & Tractor Equip. Corp., Syracuse; Credle Equip., Utica 4; Toro Equipment Co., Inc., White Plains. North Carolina: E. J. Smith & Sons Co., Charlotte. North Dakota: Minnesota Toro, Inc., Minneapolis, Minn. Ohio: Ohio Toro Co., Cleveland; Woodin Sales Co., Columbus; R. L. Shane Co., Dayton; B. K. Cohee Co., Montgomery; Reclut Supply Co., Toledo. Oklahoma: Bob Dunning Jones, Inc., Tulsa. Oregon: Western Golf Course Supply Co., Portland. Pennsylvania: Eaton Equip. Co., Hamburg, N. Y.; Chas. E. Lennon & Son, Liberty, N. Y.; Philadelphia Toro Co., Philadelphia; Penn Toro, Inc., Pittsburgh; Haverstick Toro Sales & Service, Rochester, N. Y. Rhode Island: Bay Toro Distributors, Inc., Providence. South Carolina: E. J. Smith & Sons Co., Charlotte, N. C. South Dakota: Z. W. Credle Co., Omaha, Neb.; Wyoming Toro Co., Sheridan, Wyo. Tennessee: Williams Equip. Co., Chattanooga; Tennessee Turf & Toro, Knoxville; Choctaw, Inc., Memphis; Kilgore McRee Co., Nashville. Texas: Goldthwaites Texas Toro Co., Dallas; The Myers Co., El Paso; Goldthwaites Texas Toro Co., Fort Worth; Goldthwaites Texas Toro Co., Houston. Utah: Salt Lake City Hdw. Co., Salt Lake City. Vermont: Springfield Toro Co., Agawam, Mass. Virginia: Sydnor Pump & Well Co., Richmond; National Capitol Toro Co., Silver Springs; Cary Hall Mach. Co., Salem. Washington: Western Golf Course Supply Co., Portland; Washington Turf & Toro, Seattle; Washington Turf & Toro, Spokane. West Virginia: General Equipment Co., Clarksburg; Branchland Pipe & Supply Co., Huntington 9; Penn Toro, Inc., Pittsburgh, Pa.; Cary Hall Mach. Co., Salem, Va.; National Capitol Toro Co., Silver Springs, Md. Wisconsin: Tri-State Toro Co., Davenport, Ia.; R. L. Ryerson Co., Milwaukee; Minnesota Toro, Inc., Minneapolis, Minn. Wyoming: Colorado Toro Co., Denver, Colo.; Salt Lake Hardware Co., Salt Lake City, Utah; Wyoming Toro Co., Sheridan.

CANADA—Alberta: Burgess Building & Plumbing Supplies, Ltd., Calgary. British Columbia: Willard Equip. Co., Vancouver. Manitoba: Consolidated Industries, Ltd., Winnipeg. Nova Scotia: Halifax Seed Co., Halifax. Ontario: F. Manley & Sons, Ltd., Toronto. Quebec: Agri Tech, Inc., Longueuil.

Noer — Turf Roundup

(Continued from page 60)

Tifton 328, now called "Tifgreen". Although of less recent origin, Pennlu, Merion, U-3 Bermuda, Ormond, T-47, etc. deserve brief comment.

"Penncross" is the new designation for Polycross developed by H. B. Musser at State College, Pa. It is a creeping bent grass, turf of which is developed from seed. Pennlu is one of its three parents. The original Polycross gave a good account of itself. Its performance at Edmonton has been very good. Locally it has been increased by vegetative planting. Penncross should be just as good because it is from the same parent stock. The seed is expensive, but turf can be developed with a seeding rate of one pound per thousand square feet. On that basis the actual cost of turf development is cheaper than for the use of purchased stolons. Penncross is not apt to produce a turf of one color and uniform texture. Separation should be something like the separation in Seaside bent turf.

Pennlawn is a new creeping red fescue also developed by Musser. It has been outstandingly good in trial plots and looks like the best yet in the line of improved fine-leaf fescue.

Pennlu performed exceptionally well in

the turf plots at Penn State University. Greens developed from it have not received universal acceptance. The grass does well from a growth standpoint. It does not develop a tight turf. The grass becomes puffy. Greens of that kind footprint and are not good putting surfaces. Verticutting and top-dressing may overcome this objection, but these operations increase the task and cost of maintenance.

Merion blue grass continues to find favor and seems to be more popular in many places. Results with it on golf courses have been both bad and good. Its main use has been on tees. Best results have been on courses where play is light. The tees at Woodway CC, Darien, Conn., are five years old and the turf is very satisfactory with very little poa annua. These tees get generous feeding once a month and a minimum amount of water. Turf is kept tight. On some of the heavily played courses in Chicago the Merion has given way to poa annua. Evidently it is not the grass for tees subjected to heavy play.

Some courses are trying Merion blue grass on the aprons and collars around bent grass greens. The bent takes the Merion due to the use of more water than it needs. The only place where the combination might succeed is on courses where greens are watered by hand.

Delta blue grass and several others have



Johnny Farrell hits on the 165 yd. 4th of the new Country Club of Florida course, Delray Beach, Fla., as club pres., Carleton Blunt, surveys the testing vista. The course, designed by Robert Bruce Harris, makes more interesting use of variation of elevation than is usual on south Florida courses. The site, selected by Harris, has black soil 3 and 4 ft. deep. Supt. Norman Johnson who constructed the course has it in fine condition generally for the official opening Dec. 1. Membership of club is filling rapidly. Farrell, pro at Bal'usrol in the spring and summer, is CC of Florida pro in the winter.

reached the seed production stage. Delta will not be sold for use as such. Its seed will be sold to wholesale merchants for use in their special mixtures.

The notable development in the use of selected grasses is occurring in the South. It started with grasses like Tifton 57 and 127, Gene Tift, Everglades, Ormond, etc. The first two have outstanding virtues from the maintenance standpoint, but are less popular with the golfer. Gene Tift and Everglades are doing well in South Florida. The new Houston CC course is being planted with Gene Tift from tee to green. It is doing well at Guadalajara, Mex. and is so popular with golfers there that the other greens will be changed in all probability.

The newest Tifton selection, first designated "328" but now called "Tifgreen", is one of the best for greens and very popular wherever it has been used. Its range of adaptation is wide. There are good greens in south Georgia. El Paso (Tex.) CC has three greens of Tifgreen and plan to change the others as soon as possible. This strain has a good color, is a vigorous grower, and stays vegetative. There are almost no stubby seed stalks.

The Ormond selection of Bermuda grass (designated T-82 in Texas) is being used successfully on some Florida courses for tees and fairways. The workers at LaCruces, N. M., regard T-47, a Texas selection, as one of the better Bermudas for use in that state.

U-3 Wins Favor

U-3 Bermuda grass continues to be the most popular selection in the zone from Philadelphia and Washington across to Kansas City. Farther south other strains outrank it in popularity. Throughout the twilight zone U-3 makes a tight turf and ranks high in winter hardiness. It is used mostly on tees,

but some clubs are converting fairways to this grass. The grass on the best U-3 Bermuda tees is cut close to keep a tight turf. They are not used from the time growth stops in the fall until it starts in the spring.

Even better Bermuda selections will be developed as a result of the turf projects at Tifton, in Florida, Texas, Oklahoma, New Mexico, Arizona, and California. Uganda is one such grass. It is extremely fine textured and is claimed to be one of the best.

Meyer Zoysia is being used very successfully on the center third of the tees on one Chicago course. This center strip is used from mid-June until after Labor Day. During the other parts of the year play is from the cool season turf on the other two strips of the tee. One Chicago supt. has been able to get coverage of Zoysia in a single season. Planting is with runners of Meyer Zoysia in rows spaced three inches apart. This method has produced quicker cover than planted plugs spaced 8 to 10 inches apart.

The tall fescues, either Alta or Kentucky 31, are becoming popular as vegetative cover for roughs and banks around greens in the Southwest. Their first use for these purposes was one the Desert Inn course, Las Vegas, Nev. Charles G. Wilson made the original suggestion for its use while he was Western Director for the Green Section, USGA. The roughs are cut at 3 to 4-ins. and are ideal for play. Cutting at this height enables the grass to retain color with a minimum amount of water. Some of the new California clubs are seeding roughs to Alta or Kentucky 31 fescue, probably because of its success at Las Vegas. The performance of tall fescue at Magna, Utah, would indicate that it is able to persist in soils of some salinity.

(Continued on page 76)

Noer — Turf Roundup

(Continued from page 70)

The production of seed heads in creeping bent grass nurseries is responsible for off-type strains. Some growers attempt to stop seed production with weed burners. At Purdue William Daniel prevented seed head formation by using maleic hydrazide. Positive results were obtained even with very light dosages of this chemical.

Soil Sterilization

Cyanamid and methyl bromide have been used mostly for soil sterilization before sowing grass seed or planting stolons. Both are good. Several weeks must elapse between the use of cyanamid and seeding or planting. It does not kill underground Bermuda grass rhizomes. Methyl bromide is very effective, and kills the rhizomes of Bermuda and quack grass. It fails with some hard coated seeds of clover. Seeding or planting can proceed within 48 hours after treating. The liquid is introduced into sealed polyethylene tents. The methyl bromide changes to a heavy gas which sinks into the soil. It is allowed to act for 24 hours. Then the tent is removed and soil is left for another 24 hours before seeding or planting. Treatment cost is high.

A new soil sterilant, "Vapam", looks promising. It is diluted and sprayed or sprinkled over the surface. Drenching with water immediately to wash the Vapam into the soil is essential and said to be the secret of success. Seeding or planting can start in 10 to 14 days.

The turf nursery of Toronto bent at Maple Lane CC in Detroit is pure bent. Even poa annua is absent despite its presence in the area alongside the nursery. Clarence Wolfram follows this program before planting stolons in late fall, and thinks it the secret of weed and poa annua control. The nursery area is prepared by plowing or discing. Then sodium arsenite is sprayed over the surface at 1 lb. per 1000 sq. ft. with a minimum amount of water. The area is worked with a spring-tooth harrow to bring deeper soil to the surface and sodium arsenite is used again at the same rate. He sprays and cultivates six times in all and then plants the stolons.

Faster Play Facilitated by New Maintenance Ideas

Bill Brady, supt., Maple Bluff CC, Madison, Wis., suggests that the supt. and the green chmn. keep their eyes on chances to enable players to get around the course faster, but in having the game made too easy it isn't fun.

Brady says "The greatest improvement in playing condition at Maple Bluff this year has been the lowering of the cut on the blind holes. We used to have a 4½ ins. heavy bluegrass rough and this slow-

ed up play while golfers looked for balls. By lowering the cut to 1½ ins. out about 150 yds. the balls are easily found; yet, there's still rough that is somewhat of a hazard. The player who doesn't get 150 yds. already has lost enough distance and should be penalized more.

"We also left a 10 ft. to 12 ft. strip of protective rough along out-of-bounds fences to keep the ball in the course. Especially along hard and dry fairways such strips save time and money for the player as much of our out-of-bounds is bordered by railroad bank and road.

Research Does the Job

"Research has done a tremendously valuable job for us in providing chemicals with wider range of effective use. We formerly had to buy four or five chemicals for different diseases and go to the expense of applying them separately. Now one chemical will control several diseases in all kinds of weather and without shock or burn to the turf.

"Research that would be of high value to our course would be that developing a hardy grass for our iron-shot tees. We are too far north for good results with zoysia. The grass, we need, preferably of the texture of zoysia, must be able to stand the low cut of our bent tees."

Areas Around Greens, Rough and Ladies Tees Need Study

Areas adjacent to greens and the rough often provide opportunities to step up maintenance with results that are conspicuous and pleasing to the players and the supt., says Walter Leix, supt., Shannopin CC, Pittsburgh, Pa.

Leix relates that at Shannopin this year areas adjacent to the greens and tees were limed and fertilized but, because of topography of those localities, couldn't be aerified. The rough was aerified, limed and fertilized. The Shannopin supt. calls attention to the usual case of budgets being stretched to the limit to do everything possible for the greens, collars, fairways and tees. Due to those primary demands, other areas often get less grooming than the supt. and chmn. would like to give them. When you can get around to giving rough, green and tee areas some special attention the work does a whole lot to make the whole picture of the course sparkle.

At Shannopin, several of the ladies' tees were enlarged. "Women's golf is increas-