



O. J. Noer (left), to whom 31st GCSA convention was dedicated, holds granddaughter who was flown in with sister and brother and mother (back to camera) in "This Is Your Life, O. J. Noer," dramatization which climaxed annual banquet. Mrs. Noer, at right, greets her daughter as E. H. Griffith looks on Warren Lafkin (left background), played the Ralph Edwards role. Noer, agronomist with the Milwaukee Sewerage Commission for more than 35 years, is retiring in 1960. (Story on page 94)

Houston Convention

Well planned education and social programs, Texas hospitality, made 31st GCSA show one to be remembered

ALTHOUGH attendance at the 31st International Turfgrass conference and show of the GCSA, held early in February in Houston, fell about 200 short of the record established the previous year in Chicago, the event was typical of the educational, business and social success that course supts. have come to expect of their annual assemblies. Nearly 1,475 supts., agronomists, manufacturers' reps and others interested in turf registered at the Shamrock-Hilton for the six-day affair. More than 200 wives accompanied their husbands. Houston's weather was not quite as balmy as the conventioners had hoped it would be, but its hospitality, in

which it takes much greater pride, more than supplied any warmth that didn't show up in the thermometer.

The conference, theme of which was "The Complete Course," was dedicated to O. J. Noer, Milwaukee Sewerage Commission agronomist, who has spent more than 35 years helping supts. to grow the superior turf which distinguishes courses in the U. S., and who is scheduled to retire this summer. The dedication was appropriately climaxed as the photo and caption on this page show.

The education program was spread out over six sessions, described on the following pages. Social activities included a com-

plete round of shows, sightseeing trips, teas, etc. for the wives of the supts. There was also a big hospitality hour, sponsored by manufacturers and the association, for all attending the convention, a golf tournament for the supts., the annual banquet and various other kinds of entertainment.

First Session

Mayor Gives City's Key to Elmer and Conference Is On

The opening session, which was held on Monday morning, was in charge of Tom Leonard, supt. at River Oaks in Houston, who is a transplanted Oklahoman. Among those who he introduced during the pre-lunch gathering were A. W. (Al) Crain, agronomist for Goldthwaite Texas Toro, also a transplanted Oklahoman, and George Aulbach, a Texas pro (Lufkin CC), by way of Boston. Besides these immigrants, the greensmen heard John Outland, Dallas CC club mgr. and Mel Warnecke, of Atlanta's East Lake.

These speakers followed Mayor Louis Cutrer of Houston who presented the GCSA's outgoing pres., Elmer Border, the keys to the city, promised to void any parking tickets that the conventioners collected during their Houston sojourn and in typically proud Texas fashion, described the glories of the Lone Star state and, of course, Houston.

Al Crain showed films of courses in Houston, Beaumont, San Antonio and Austin and discussed the general weather, topography and soil features of Gulf Coastal areas and those that are within 200 miles of the Gulf. He predicted that the bent green line that stops with Dallas will be extended several hundred miles farther south in the next four or five years, thanks to experimental work that is now being extensively carried on in several southern states. Dallisgrass, Crain stated, continues to be the curse of the man who manages fine turf in Texas, while in the last few years, supts. in and around Beaumont and Houston have been handicapped in the spring, and even in the fall, by an abundance of rainfall that often seriously interferes with mowing.

Must Hear Out Complaints

Jack Outland, who presented the manager's outlook on the country club situation, suggested that men of his calling, as well as professionals and supts., should resign themselves to the fact that part of

their pay at least is for the roles they play as "professional listeners to complaints." If we can live with that attitude, Outland observed, we'll not end up in a pile of ulcers. The Dallas club mgr. said that, in reality, members generally are easy to get along with and that too many club employees make the mistake of remembering only the grouzers.

Speaking of personnel problems, Outland declared that too many clubs hire non-supervisory help rather haphazardly, don't make clear what is expected of these people and don't tell them what is due them in the way of benefits. If more pains



Mel Warnecke



George Aulbach

were taken in hiring, particularly by the mgr. and supt., Outland added, more loyalty to the clubs would be developed.

Joint Responsibility

In discussing what players want in a course, George Aulbach opined that if the first tee is kept free of debris, people get the immediate impression that the entire layout is tidily maintained. This puts them in the proper frame of mind to start out with, George continued, and may result in their viewing the rest of the course with a less critical eye. Aulbach believes that the pro should be equally responsible with the supt. for keeping the No. 1 tee area properly policed.

The Lufkin CC pro said that on most courses he has seen there are far too many signs. He favors a movement that will do away with about 60 or 70 per cent of them. If major changes in local ground rules are made, he said, the pro and supt. would do well to notify members of these by letter rather than by posting signs which usually aren't heeded anyway.

In the matter of maintenance for play, Aulbach stated that he feels that a majority of supts. could do a better job on practice greens. Fairways and regular greens

at 90 per cent of our courses, he observed, are well maintained, but the same can't always be said of traps and the roughs. More attention probably should be given these hazards, George declared, because the least neglect of them makes play even more difficult than it should be for the high handicap shooters.

Togetherness at East Lake

Mel Warnecke of East Lake suggested that if any coolness has developed among the supt., pro and mgr., they should keep in mind that close cooperation on many occasions probably has saved the skin of at least one or possibly all three. A further argument for working together is that the triumvirate should present a unified front as often as reasonably possible.

Describing how togetherness is practiced at East Lake, Mel said that he and the pro and mgr. have regular monthly meetings, that these two officials are always invited to his bi-weekly breakfast conferences with green committee members, and that one or the other occasionally attend turf gatherings with him.

Beats Throat Cutting

"All this may have a taint of logrolling," Warnecke conceded, "but it certainly beats throat cutting. As far as I am personally concerned, I feel that it has enabled me to do a better job because I have learned a great deal more about the members' viewpoints than I would ordinarily know if I hadn't worked closely with the pro and club mgr. I'm reasonably sure that they feel the same way."

Second Session

Celebrity Says Texas Golfers Don't Have A Handicap System

Following the introduction of celebrities by Stan Graves, supt. at Woodmont CC, Rocky River, O., and O. J. Noer of the Milwaukee Sewerage Commission, three speakers were heard on the Monday afternoon program. They were Wayne W. Huffine, Oklahoma State University agronomist, who traced the 75-year history of turf research in the U. S.; John M. MacKenzie, Toro's Minneapolis plant mgr., who spoke on the supervision of labor; and John Hill of Texas A & M College, who discussed safety.



(L. to r, top) Wayne Huffine, John Henry, Stan Graves, Henry Ransom (Bottom) Bob Morris, Marty Marion, Jess Neely

... they made their bows as celebrities.

The team of Graves and Noer, a long-time GCSA convention fixture, called such notables as Tom Davison, Jess Neely, Henry Ransom, Bobby Morris and Marty Marion to the podium. Davison of the Houston Post told the audience that Texas is the one state that doesn't have a handicap system for its golfers — and nobody seemed the least surprised. Neely, Rice University's football coach and something of a turf expert in his own right, described the Owl stadium of a few years back as having an excellent drainage system but with soil so compacted that water couldn't reach it. Ransom, former tournament star and now an East Texas gentleman rancher, recalled getting a \$500 bonus check from George S. May in 1950 because he was discreet enough to tell George that he had no suggestions as to how the World's Championship should be conducted after practically every pro who participated had offered his advice to the Tam O'Shanter impresario. Morris, current Texas PGA champion, described what it takes to win a Texas championship. Marty Marion, the onetime baseball great, opined that another major league in both football and baseball should open up these sports to many talented athletes who aren't getting a break because of the present limited opportunities.

Reviews Research History

In the last 20 years, according to Wayne Huffine, turf experimental stations in the U. S. have increased from 10 to 30 and numerous commercial concerns have set up research divisions. This country's experimental activities were started in 1885 by a New Hampshire resident, J. B. Olcott, who developed several strains of grass; the

state of Rhode Island came on the turf research scene in 1890 and the U.S.D.A. about 20 years later.

In 1927, the first creeping bents were made available, Huffine said. Ten years later at least a dozen in all had been developed, but it wasn't until after World War II that the public really became aware of the bent strains. Much of this awareness, of course, came about due to the golf industry's early and wide use of bent.

Improvements of fungicides, herbicides, insecticides and fertilizers generally coincided with advances made in turf culture, the Oklahoma agronomist stated. However, it wasn't until after World War II that manufacturers intensified their efforts in discovering and producing control materials that either cut down greatly on product bulk or simplified their application. With all the research that is now going on, Huffine predicted that in the case of herbicides, for example, specific preventatives for controlling individual weeds or undesirable grasses soon will be on the market.

Supt. A Labor Manager

John MacKenzie of Toro said that the most important job of the professional manager, whether in turf work or any other field, is the determination of overall objectives and the specific steps that must be taken to accomplish them. He stated that since 75 per cent of the course budget goes into labor, the supt. must think of himself primarily as a labor manager. This means that he must not only be completely familiar with every maintenance job but know the capabilities of his employees well enough to assign each and every one to the job which he does best.

The supt., he added, must be willing to devote all possible time to job instruction, be constantly on the alert for ways of improving operations and make repeated studies of his work schedules to cut down non-productive effort.

As for direct dealings with employees, MacKenzie said that the cardinal sin that supervisors commit is disregard or slighting of persons who work under them. He advised the supts. never to take lightly an employee's suggestion for improving an operation because, if nothing else, it proves that the person is at least thinking about his job and not merely going through the motions. He concluded his remarks by saying that it is well to keep in mind that 19 out of 20 people are conscientious workers who will do good jobs if some effort



Tourmasters when 325 GCSA members made a swing around Houston to visit four courses and Rice University stadium were Tom Leonard, Gene Bockholt and Hugh Pitts (l to r). Midway through tour, supts, replenished selves at Sonny Du Bose's Houston CC with succulent barbecue and side dishes to match.

is made by management to show them how they fit in.

Three-Point Safety Program

John Hill, after citing the awesome annual losses in life, property and man hours due to accidents in this country, suggested the following three point program for improving the safety record:

1. Fit the employee to the job by judging him on his physical ability and mental alertness;
2. Tell the employee how an operation is to be performed; demonstrate it for him; and then have him show you that he understands how it is to be done;
3. Always insist that the proper mechanical tool be used to do a job; plan the safety program as carefully as the maintenance program; and hold regular safety meetings.

In summing up, Hill declared that safety should be approached from a defensive standpoint. "It is not enough to post signs saying, 'Work Safely'" he said. "The employee must be impressed with the idea that he is vulnerable to all kinds of accidents and that he must be constantly alert to avoid them."

Weighty Topics Are Discussed as Research Men Have Their Day

The theme of the Tuesday afternoon meeting was "Progress in the Field." William H. Daniel of Purdue University spoke on the poa annua problem; Herb Graffis, GOLFDOM's editor, discussed public relations; Eliot C. Roberts, Iowa State University agronomist, talked on the role of nutrition in aiding turf growth; California's research activities were described by Victor B. Youngner of the University of California, Los Angeles; and the session was concluded with a showing of a turf management film prepared by the Milwaukee Sewerage Commission. In conjunction with the latter, a time-lapse motion picture of the movement of water in soil was shown.

Poa Annua — Deny, Ignore or Grow It

Speaking of the poa annua enigma, Bill Daniel said that it can be denied, ignored, or as some supts. do, follow a program for growing it throughout the year. The latter calls for frequent watering, good aeration and fertilization programs and heavy fungicide treatments when disease threatens. But even with all these measures, poa has a way of acting treacherously — it often fails when it is wanted most.

The principal control for poa annua, Daniel stated, is the combination of good management and use of arsenicals that restrict the growth of poa while, at the same time, tolerating the growth of desirable grasses. Tests and observations made at Purdue University, Daniel said, indicate that of the arsenicals, calcium arsenate probably is the most effective when both control and safety factors are taken into consideration.

For fairways, best results probably can be obtained through application of 6 lbs. of calcium arsenate per 1,000 sq. ft. (powder) and 10 lbs. (granular) in the spring and fall, and at a rate of 6 and 8 lbs. per 1,000 sq. ft. of greens. Caution is recommended in the latter applications, recommended to be made twice a year, because light applications develop sufficient toxicity. If lead arsenate has been repeatedly used, the green application shouldn't run more than 4 or 6 lbs.

Manufacturers and experimental sta-



V. B. Youngner



M. E. Bloodworth

tions, the Purdue agronomist said, are constantly trying to improve the arsenicals and in time they probably will come up with products that will give highly effective poa control. In the meantime, if the supt. does not consider poa desirable, about the only way he will be able to come close to controlling it is to set up a program wherein he makes uniform applications of arsenicals on a regular schedule.

Word Is Getting Through

Speaking of public relations, Herb Graffis said that club members still don't have a very firm grasp of what the maintenance dept. has to do to make the course the beautiful piece of property it usually is. "But," Graffis added, "they're learning. Ten years ago about all they knew was that you kept the grass mowed. Now word has gotten through to them that you are well rounded specialists who have a wide knowledge of chemistry, agronomy and several other weighty subjects.

"At this point they're impressed — they stand somewhat in awe of you," the Golfdom editor continued. "The thing for you to do is keep impressing them by giving them more information about the maintenance dept. Of course you have to go through certain channels to do it — through your green chairman or green committee, the bulletin board or the club magazine. But the thing is, keep alert for the opportunity to funnel news about yourself and your dept. to the membership. It's going to work in your favor."

Graffis complimented the GCSA on the excellent way in which it presented its request to the National Golf Fund for an increase in its share of National Golf Day receipts (the request was granted) and suggested that each supt. make his budget request in the same businesslike manner.

"If you give the impression that you need every dollar possible, you'll probably get it," Graffis said, "but if you present your budget request in a slipshod fashion, club officials probably will be so unimpressed that they will look for ways to cut back on you."

Resistance is Best Bet

Eliot Roberts, the scholarly Iowa State research agronomist, expressed the opinion that turf never will become immune to most of the diseases that attack it. "About the only hope," he said, "is for turf to build up strong resistance which, combined with the use of fungicides, will ward off many of the common diseases."

Golf course turf, Roberts commented, is especially susceptible to disease because it is kept so closely clipped. A great deal of its strength is lost in the clippings and what remains becomes a potential breeding place for fungi. Areas that are intensively watered also invite the invasion and spread of disease.

Alluding to resistance factors, Roberts said that beside fungicides, nitrogen, phosphorus and potassium, in proper balance, are the elements best suited to outgrow fungus; phosphorus promotes the manufacture of carbohydrates to counteract the enzymes produced by the various fungi; and potassium also adds to the resistance-growth process. Proper climatic, planting and growing conditions also enable turf to withstand disease.

Much of Roberts' lecture was given with the aid of slides in which it was shown how the structure of cell walls within a plant cause it to fall prey to or resist diseases.

Work Against Ourselves

Roberts' remarks about the deleterious effect of close turf clipping were substantiated by Victor Youngner, who described some of the heat and temperature experiments made in plant growing chambers at UCLA.

"By mowing close and making relatively heavy nitrogen feedings of cool season grasses in hot weather," said Youngner, "we are working against ourselves. Close clipping retards root growth and thus destroys the food storage capacity of plants. Heavy applications of nitrogen under this condition become wasteful because only a small amount of the element is being consumed. We should apply only enough nitrogen in warm weather to maintain a healthy color and supply the plant with the small amount of food it can use. Our tests have shown that it is unwise to apply chemicals other than fungicides in

Comes 6,000 Miles from Germany to Attend GCSA Convention

The distinction of having travelled farthest to attend the GCSA convention went to M/Sgt. John F. Petrie, who came 6,000 miles from Stuttgart (Germany) GC to absorb the turf learning offered in the four-day educational program. Petrie's expenses were partly paid by club members, who raised a special fund to send him to Houston, and by himself.

An Army veteran of 18 years, Petrie has spent the last nine as a course supt. From 1951 until 1954 he was stationed in Japan where he helped maintain or build courses in Yokahama and at Camp Zama. From 1954 until 1959, he was supt. of the Ft. McPherson (Ga.) CC.

Petrie was transferred to Stuttgart early last year. He maintains Kentucky Blue fairways and greens of Colonial bent and creeping red fescue. Greens are large there, averaging 8,000 sq. ft. German civilians and GIs work under Petrie's direction in maintaining the three year old Stuttgart GC. U. S. equipment is used on the course but fertilizers, seeds and chemicals are purchased locally.

The large club membership is made up of officers and enlisted personnel. Play is heavy from April through October, often touching 300 rounds a day on weekends.

hot weather, and watering should be controlled so that there is no likelihood of saturation."

Numerous interesting theories have come out of the growing chamber experiments made at the U of C agronomy station, Youngner said. At this point, agronomists there feel that the duration of daylight may have a much more important bearing on plant growth than temperature influences. Observations of two *Zoysia* strains, for example, showed that both grew three or four times as much when exposed to 16 daylight hours as compared to eight. Temperatures in both cases were a constant 70.

For both warm and cool season grasses, according to UCLA findings, temperatures for root growth can be slightly lower than for top growth. This has been confirmed by field as well as hothouse tests. In warm weather it has been found that top growth increases and root growth slows down. The process is reversed in cool weather. UCLA scientists also have observed that the range of growth temperatures are nar-

rower for warm than cool season grasses. Minimum temperature for the growth of common Bermuda is 50 degs., for Tifgreen it is slightly less than 50 and for Meyer Zoysia, 60.

Water Movement Film

The third session was concluded with the showing of a color film prepared by the Milwaukee Sewerage camera duo of O. J. Noer and Charles G. Wilson. It was largely devoted to maintenance methods with emphasis on the care and building of greens and traps and irrigation installations. New and easier ways of handling maintenance jobs, improved by supts. and persons working under them, also were featured.

Following this, a time-lapse motion picture of water moving through soil was shown. Painstakingly filmed, it proved to be a convincing argument for the school of turfmen who contend that topsoil has to be homogenous in texture to insure deep and healthy root growth. The film, which took about 20 minutes, showed the progress of water droplets through a layer of topsoil about 12-inches deep and how this progress was very visibly retarded when the droplets reached a layer of dissimilar material.

Fourth Session

Supts. Detect Some Shortcomings In Course Construction

Fred V. Grau of Nitroform Agricultural Chemicals was moderator of the Wednesday morning program which had as its theme, "Construction Concepts of a Course." He presented George Cobb, Greenville, S. C. architect; Warren Bidwell, supt. of Olympia Fields (Ill.) CC and Charles Danner, supt. of Richland CC, Nashville. A question and answer period, which followed the speeches by these men was, as it usually is, interrupted too soon by the bell. The morning's program was concluded with a film by the well travelled team of O. J. Noer and Charley Wilson which showed how Mel Warnecke built several greens at Atlanta's East Lake course last year.

Wants Supt. on Job

Architect George Cobb emphasized that he insists on two things when he designs

a course. One is that a supt. be on hand in at least the final construction phase so that he can oversee the building of greens. A second is that the contractor follow the design down to the last contour section on the blueprint.

The Greenville architect said that the secret of design is the adhering to the natural features of the site on which the course is to be constructed. The only departure from this time-tested method should come when it is seen that a succession of holes have so many similarities in appearance that they become monotonous, or when it is apparent that the layout of some holes will be decidedly unfair for the fellow who is classed as a struggling golfer.

As for built-in characteristics, Cobb stated that he is most conscious of good air circulation around greens and efficient water drainage. His fairways are built with a one per cent grade and herringbone style drainage systems are installed under all his greens, usually at a depth of about 10 inches.

Golf Jobs Are Fill-ins

"Too many courses are being built by general contractors who take on golf jobs to fill in during slack times," Warren Bidwell declared. "Perhaps this wouldn't be so bad," he added, "if the supt., who is to take over when the course is completed, were on hand to see what's going on during the time the course is being built. But usually this is not the case. As a result, numerous clubs are finding it necessary to spend important money to correct mistakes made in the original construction, or, if not, they are often disappointed with the mess they have on their hands after the course is completed.

"Perhaps," Bidwell continued, "we shouldn't be too sympathetic with them. As far as we supts. are concerned, they are being penny wise only with us."

Construction sins that are being committed every day, Bidwell said, are: building of greens that are too small; contouring so that cupping areas are too small; burying of debris such as tree stumps under tees and greens; and cutting out of trees or leveling of knolls and slopes that have strategic importance so far as playing conditions are concerned.

Bidwell's conclusion: If clubs want to get their money's worth, they should insist on having their courses built by contractors who know something about golf course construction and are not mere earth movers.

Abandoned Herringbone Design

Charley Danner, the pioneer bent green custodian in the South, told of his dissatisfaction with the herringbone system of drainage used on the first six greens that were converted at Richland CC in 1952. Channelling excess water into a narrow area, such as is done with the herringbone arrangement, Danner said, caused sloppy conditions in front of the greens during rainy weather and made these areas potential disease breeding spots.

When the remaining 12 greens were converted to bent in 1953 and 1954, the Nashville supt. said, a square U tile arrangement was installed so that the drainage became diffused. This, combined with the fact that the last 12 greens were built with perhaps more attention to improved surface drainage, has resulted in these latter putting surfaces giving much less trouble to the Richland CC maintenance dept. than the six that were originally converted.

Suggestions for Improvements

Fred Grau prefaced the Question and Answer period by commenting on some of the things that he thinks should be done to improve both construction and maintenance. His observations: Newly built

Golfdom Holds Luncheon

The third annual luncheon for fathers, sons, and sons-in-law who are supts., sponsored by GOLFDOM, was held during the GCSA convention. About 70 persons attended the affair. Hosts were Joe Graffis, Sr., publisher of the magazine, and Herb Graffis, editor.

courses should be given more time to settle; Proper soil mix and depth of mix often are neglected; maintenance buildings, at a majority of clubs, are located in too inaccessible spots; course communication systems are behind the times; many times the interval between new seeding and watering is too long — it shouldn't exceed 48 hours; there probably is not enough use of fertilizers when tees and greens are overseeded.

The questions that followed were directed, for the most part, at architects and dealt entirely with the adoption of standardized building specifications by the men who design the country's courses. George Cobb, the only architect present, emphasized that he did not speak for the designers as a group, but only for himself. He maintained that he always has built tees,



James A. Reid



George Cobb

greens, traps, etc. to what generally are accepted as reliable agronomical and physical specifications, but he doubted if these can always lend themselves to an exact formula. If nothing else, he said, the wide variances in building budgets prevent this. Architects, he also conceded, have very definite likes and dislikes and these don't lend themselves to standardization.

"Green Construction at East Lake," the Milwaukee Sewerage Commission film that concluded the morning's program, traced the entire operation from the leveling of the site to soil sterilization and seeding. One of the interesting sidelights of the film was the showing of how soil is tested for texture qualities in the laboratory of Leon Howard of College Station, Tex.

Fifth Session

The Practical Side — From Wetting Agents to Mower Maintenance

James E. Reid, supt., Suburban CC, Baltimore, led off the Wednesday afternoon meeting with a talk on wetting agents. He was followed by James R. Watson, Jr., Toro agronomist, who spoke on water management. Morris E. Bloodworth of Texas A & M then discussed soil mixtures. After him came J. W. MacQueen, also of A & M, who pointed out some principles to be followed in landscaping. Purdy Carson of Jacobsen-Worthington, concluded the program with tips on equipment care.

Explains Use of Wetting Agents

Jim Reid declared all his experiences with the use of wetting agents have turned out to be very favorable. In one instance, he applied 6 gals. of Aqua-Gro per acre to 10 acres at a 10 to 1 dilution rate and got exceptional results. Reid cautioned that the agent should be watered in immediately after application. If not, there is danger that the turf will be burnt. When the dilution is at a rate of 100 to 1 or 200 to 1, followup watering probably is not necessary.

As explained by Reid, wetting agents reduce surface tension and thus gives better water distribution through the soil. As a consequence, nutrients penetrate the root zone more readily. Tests have shown, he said, that where wetting agents are used, root penetration may go to 10 or 12 ins. as compared to 6 ins. without. With deeper rooted turf, resistance to disease and wilt is greatly increased. The Baltimore supt. concluded by saying that there is some evidence that watering can be reduced by from 50 to 60 per cent when wetting agents are regularly used.

Long and Short Range Watering

Jim Watson of Toro said that the more a person thinks about water management, the more he comes to the realization that it is a pretty scientific undertaking. "You just don't set out the sprinklers when you're in the mood and give the ground a good soaking," Watson declared. "That is, if you are interested in getting the most favorable watering results."

The 'how often, how much, how to apply' equation, Watson said, is determined by several long and short range considerations. For the long range program, the thinking man is looking to the kind of turf he must water, the condition of his drainage system, climatic environment, texture and structure of the soil and its condition in regard to compaction. Immediate watering needs are determined by capacity of the system, availability of help to apply water, amount of play, temperature, degree of windiness over a period of say two or three days and, possibly, intensity of sunlight during a similar period.

Soil Investigation Described

Soil investigation work carried on at Texas A & M was described by Morris E. Bloodworth. Many variations of the sand, clay, silt-organic mix have been tested there for permeability, infiltration, root penetration and absence of compaction and A & M agronomists have concluded that the best turf growing mixtures are found in approximately these proportions:



O. J. Noer Elmer Border

Among tributes to O. J., the GCSA Merit Award. Georgia Turf Association also gave Noer a plaque.

80 per cent sand (dia. of .5 to 1 mm); 10 per cent clay and 10 per cent organic (peat). Where 10 per cent silt has been used, compaction has been a problem. Topsoil depths should range from 12 to 16 ins.

Bloodworth also showed an interesting water penetration chart covering the soil range from loamy sand through sandy loam, loam, clay loam and clay. When three ins. of water is applied to each of these soils, loamy sand is penetrated to a depth of three ft., but there is a gradual decrease in the others (in the order listed) with penetration falling off to 16 or 17 ins. in clay. This chart was supplemented by another showing the degree of water flow through soils of various textures.

Bloodworth summed up his remarks by saying that putting mixtures as a rule, lose their structures much more quickly than agricultural soils. So far as the mixtures for greens are concerned, much research and practical work remain to be done in compounding soils that will not break down and will be resistant to a compaction.

Eight Landscaping Hints

If the supt. is called upon to double as a landscaper at his club, J. W. MacQueen recommended that he keep these points in mind:

1. Use trees and shrubs to enhance but not hide a building;
2. If the lines of a building are harsh and unpleasing to the eye, landscape to soften them;
3. Try to work out designs that frame

interesting views;

4. Scale before you plant; i.e., take into consideration the width of walks before surrounding them with shrubs, and the height and breadth of buildings before ringing them with trees;

5. Don't block out windows or block entrance ways with tall shrubs;

6. When planting flowers don't select colors that will clash with the colors of your buildings;

7. You'll occasionally be pestered by well-intentioned members who want you to plant a certain type of shrub that may clash with the design of present plantings. If you can't dissuade them, you'll probably have to join them;

8. Check all plants, shrubs, etc. for disease before planting.

Preventive Maintenance Discussed

The final speaker on the Wednesday afternoon program, Purdy Carson, a Worthington Mower sales engineer, told the supts. how to use preventive maintenance methods to prolong the life of maintenance. He said that much of the malfunctioning of power equipment is due more to neglect of proper and simple tuneup and maintenance measures than to operating abuses. Carson cited these examples of poor maintenance: Air cooled engines cease to remain air cooled because vents are allowed to become clogged; Dirty grease, oil and gasoline too often are used in cleaning and lubrication work; Mower blades aren't properly sharpened, throwing an extra burden on the engine to rotate them and causing an early breakdown of the machine.

"The sad part of it is," Carson declared, "that the manufacturer is blamed for most of the trouble that results from nothing else but pure neglect or improper maintenance work."

The Worthington engineer then gave a demonstration of how to adjust and grind reel type mower blades. He showed how too tightly adjusted reels cause premature blade wear and how grass can be injured when the reels are set too loosely. When the blades are ground. Carson said that a good deal of care has to be taken in gauging to insure proper sharpening. The same holds true with bed knives, since if the grinding setting is more than 1/16 ins. off, stresses can be caused in the metal that eventually may cause serious damage.

In his concluding remarks. Carson said that many more miles could be gotten out of all types of equipment if course maintenance depts, religiously consulted their servicing records.

Sixth Session

You Haven't Lived Until You've Gotten Ready for an Open

The educational program was concluded on Thursday morning when three turf conditions in different parts of the country in 1959, and four supts., who had gone through the throes of preparing for National Open tournaments in the last 20 years, described some of their experiences. The USGA group was composed of Bill Bengyfield, representing the Far West, Alex Radko of the East, and John B. Moncrief of the Southwest. Supts. who went back and sweated through the months preceding the Big One included Elmer Border, then of the Olympic Culb in San Francisco, Sherwood Mocre of Winged Foot, Elmer J. Michael of Oak Hill in Rochester and Marshall Farnham formerly of Philadelphia CC.

The Woes of 1959

The verdict on the 1959 weather by the three green section men who spoke was summed up in one word — woeful. It was particularly poor in the east and northeast sections of country, according to Alex Radko.

He ticked off at least a half dozen ways in which the elements worked against the supt. last year. Among them: There were no warm spring rains to speak of and as late as mid-April, greens along the Buffalo-Boston line were still straw colored; Fairways were hard hit and didn't really come back all year; Knotweed thrived like it never thrived before; The sod webworm had a field day, and not the kind that's held at Rutgers; It wasn't a good season for poa and fall renovation was either delayed or had to be postponed entirely.

But, concluded Alex, the supt. learned a few things which will help to carry him through in the future if there is a play-back on the 1959 weather. He found, for example, that fungicide treatment and green fertilization has to be reduced in summers such as last year offered. New respect for pre-emergent treatment was impressed upon him. He had to use more hydrated lime to hold the fungicide that was being washed away by heavy summer rains, and perhaps, he rediscovered top-dressing.



Sherwood Moore Marshall Farnham Elmer Michael Elmer Border
... they told harrowing tales about preparing for the Open.

Beware the Amateur Salesman

Bill Bengueyfield of the western section also dwelled momentarily on 1959's dreary record and added that a new type of menace came along last year to plague the supt. That was the inexperienced salesman giving incorrect advice. He seemed to be in abundance. Supts. who should have known better gave him an ear because the weather in some cases was driving them to desperation.

"Last year," said Bengueyfield, "can't be written off as a total loss, by any means. The majority of supts. got smarter as the year progressed. They say they couldn't always depend on old methods and adopted more flexible management programs. It armed them for the future."

Bengueyfield reported that a few old standbys were resurrected last year. For example: Iron sulfate, that John Monteith recommended back in 1932 as a weed killer, and to restore a needed element to the soil, reappeared from June through August and proved to be the answer to one of several problems.

The USGA's western dir. also gave quite a lengthy report on Penncross' behavior in 1959. It was both a hero and goat, proving to be a fine desert strain but not holding up too well in Southern Calif. where play on it may have been too heavy.

Report on Bent in the South

Jim Monteith, who patrols the Southwest for the USGA, said that the disease and weed problems in that sector were more in evidence in 1959 than in the previous four or five years. Supts. found that these are things that can't be whipped

in a single season, but have to be overcome in perhaps not less than three years. Irrigation also continued to offer its share of headaches since rainfall ranges from 60 ins. a year in the eastern part of the section to practically nil farther west.

Montieth also read a report by Jim Latham, Southeastern USGA agronomist, who told of bentgrass tests being carried on at the Athens (Ga.) CC. Numerous strains have been given a trial in plots with 10 ins. of topsoil made up of the following: Sand, 60 percent; loam, 30 and peat, 10. No major difficulties were encountered in any strains although it was emphasized that the experiments have been carried on for only one year. Old Orchard, Penncross and a mix of Arlington and Congressional, in that order, appeared to thrive best in the southern setting. A tentative conclusion is that given proper soil and management, bent can be grown in the Southeast.

Nothing Like A Bonus

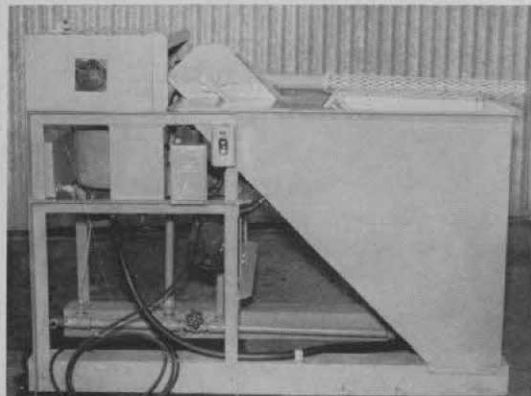
If the good or best is saved for last, there was something of a dessert course in the accounts given by the foursome of Border, Michael, Moore and Farnham, who described their experience in preparing for various Open tournaments.

There is no denying that a supt. who grooms a course for a USGA extravaganza has his share of tribulations, but at least there are compensations. It often helps him salarywise; he may be able to purchase equipment that the club has backlogged over the years; but probably most important, it vastly improves his stature in the eyes of the members.

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Houston Convention

(Continued from page 54)

One of the significant points about the business of preparing for the Open that was emphasized was that the USGA should be more generous in rewarding the supt., who in all probability, has spent at least a year worrying and working in getting his acres ready for the big event. A plaque is nice; the possibility of being seen on TV for a brief second is something to contemplate; but there isn't any tribute that quite stacks up alongside a substantial bonus check. These, incidentally, were the sentiments of the audience and not of the speakers.

Catastrophe Strikes

Something in the way of catastrophe struck at three sites shortly before the Open was to be played. Sherwood Moore at Winged Foot had a fire in February that destroyed his maintenance building and practically all his equipment. Elmer Border, then at Olympic, woke up one March day with a strike on his hands. It went on for three weeks. Elmer Michael had a rainy 10 months to contend with prior to the big event at Oak Hill. What's more, when reconstruction was to be

stepped up in the spring, the weather turned even more perverse. Marshall Farnham was the only one to escape fire, strike and rain, but as he said, "Things were less complicated in 1939 when the Open was played at Philadelphia CC."

Witness the woes of Border: He came to Olympic Club seven months before the 1955 Open and was faced with the job of rebuilding seven tees, one green and all traps. Around four acres of sod were moved in the process and 300 tons of sand were imported. Dry winter and spring winds didn't exactly work in his favor; neither did the strike. Members helped with the green and fairway mowing and one parked a sorely needed tractor too close to a tree trunk.

Rough Lost in Tall Grass

To further aggravate things, one person in authority at Olympic, said Elmer, decided that the course was really going to be toughened up for the Open. He wouldn't allow the rough to be cut. When Joe Dey, the USGA executive director, came to inspect the property a few days before the tournament, the rough looked like African bush. Air had to be pumped into Joe on the spot. It was finally decided that the only thing that could be done

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was to cut a 6-ft. swath adjoining the fairway to normal rough height. When the tournament was ended and the entire rough restored, 280 truckloads of grass were hauled away.

The fire that destroyed Winged Foot's maintenance building and equipment turned out favorably for Sherwood Moore since he got complete new replacements of both. For the next four months things went quite smoothly but a cloudburst caught up with Moore on the next to last day and resulted in the West course, which was used as a parking lot, being turned into a morass. It took almost a month to get it back in playable shape.

Compensations in Work

"A supt., however, shouldn't get the impression that getting ready for an Open is just a succession of headaches," Moore said. "There are compensations. For one thing, it raises your standards of maintenance. For another, it forces you to get things done that may have been put off before. You work with a lot of different committees at your club and, therefore, you become better known. Finally, most supts. I know have done better financially after having handled an Open."

Elmer Michael expressed the opinion that perhaps many of the changes that are dictated in getting ready for the USGA event are unnecessary. "Some, at least," he asserted, "seem to be made merely for the sake of change. Or, maybe it's a plot against the supt."

Spell of Poor Weather

Oak Hill, as mentioned before, got a prolonged spell of poor weather preceding the 1955 Open. Reconstruction work was slowed up to the extent that 2,000 yards of gumbo had to be stacked up behind the 11th green only a day or two before

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the practice rounds started. Parking facilities surrounding the club became so churned up that the West course had to be opened up on the first day of the tournament to take care of the traffic. Due to the poor weather and heavy foot traffic, the area around the clubhouse took a terrific beating. It took at least two months after the final putt to restore this and the West course, Michael said.

In view of all the trials and tests that Border, Moore and Michael were put to, Marshall Farnham said that he suffered a slight pang of conscience in finding that he got off so easy. "Perhaps the course requirements weren't quite as stringent 20 years ago," Marshall remarked. "We knew a year in advance that we were going to have the Open. The ceiling was taken off the budget, equipment manufacturers gave us a hand and so did many other people, including Joe Valentine. All in all, things went quite smoothly. Yet, I'll say that one Open is enough for any supt."