You'll need lots of DOTS this year. Check your supply.
The Chicago golf area is some 75 miles long and 30 miles wide centering on the City of Chicago and covering approximately three counties. Within these limits there are some 150 golf courses.

Chicago is located on a crescent shaped plain which is about 580 ft. above sea level. The plain rises about 150 ft. above the lake level and is bordered inland by glacial moraine that rises to about 150 ft. above the plain. The topography does not significantly affect the air masses that usually approach the area from a southwesterly direction. Lake Michigan modifies the spring and early summer temperatures. On occasion the air masses move in from the northeast and produce heavy snows or rains after crossing over the lake area.

Our average annual temperature is near 50 degrees. Average daily maximum temperatures for June, July and August are 85, 88 and 82 degrees respectively. We normally expect 13 days of 90 degree or higher temperature in the year although in 1953 we endured some 42 days of such temperatures. Extremes have ranged from 105 degrees to 23 degrees below zero. Our summer humidity in midafternoon will average 55 per cent. With respect to growing grass you will realize we must contend with summers that are hot and humid.

Our normal annual precipitation is 33 in. It has varied from 45 in. to 22 in. Annual snowfall also averages 33 in. While we are called the "Windy City" our wind velocity reaches its minimum in the summer, averaging 9 miles per hour, and its maximum in the spring, 12 miles per hour, which falls short of the windiest sections of the United States.

Wide Soil Variations

Our grass growing season normally extends from April 1st through October 30th, although there is a variation as much as a month less in areas to the north and away from the lake influence.

Knowing something of the weather we should now consider the soil types in the Chicago area.

Naturally in a large area we find considerable variation in the soil. Our surface soil is mainly of sandy clay loam and silt loams. We do have areas of peat, very sandy loam, gravel, and muck soils. At my own club we have 3 very distinctly different soil types on the one course. We have heavy clay, clay loam, and a very sandy silt loam. These variations compel us to treat some parts of the course differently from others. By the same token, general practice at one course might necessarily be entirely different from another due to soil conditions.

Generally speaking one might say that our soils are good productive soils. In the construction of most greens around Chicago a large quantity of native peat has been used and perhaps, in many cases, too liberally.

Employment Problems

One of our biggest problems, and one which is rather well known to golf course superintendents most everywhere, is the problem of securing labor. In any large industrial center most laborers are employed by the factories and are well paid. During the past 15 years there has been little unemployment and especially so in industrial centers. Where, then, do we find our workmen? Most of our clubs have 2 or 3 men and occasionally more that they employ on an annual basis. These men have usually been with the club most of their lives, love their work, and are a great asset to the clubs.

For seasonal help we must depend on high school and college boys and older men who either have retired from their life work or who desire to get outside for reasons of health. In some instances our courses use considerable part time help such as firemen, policemen and others. About 75 per cent of our crews would be classified as skilled labor and the remaining 25 per cent would be semi-skilled.

Inasmuch as these men are skilled through practice rather than formal education one can readily see that a great deal of training must be given to all of these men. This becomes even more difficult when you realize that their work is
PROFIT LEADER

NO. 439 A cap with witty style, brilliant color, and practical; the sort of headwear that sells itself! In red, blue or green multicolored plaids with mesh sides in contrasting white.

NO. 571 For that note of "vacation-bound," this cap has the right style and still gives the comfort and utility that thousands look for. Moire cloth of natural color with contrasting brown stripes that ventilate and decorate too.

NO. 1208 We'll try, but we can't say enough to justly describe the dressy appeal of this sports cap...Smart, new in design, snap-down crown that's extra full, tropical weight, three checked-pattern color combinations, acetate Rayon lining, Nylon-Rayon net breezeway front, one size with strap adjustment fits them all!

NO. 474 The Wimbledon Tennis Visor made from Twill, in colorful red, green and navy. Padded forehead band, nickel slides for adjusting size. Also available in traditional White, Model No. 475 with green underbrim for the last word in eye-comfort and style for every sport.

NO. 601 Of course women look for something a bit different...the Rangoon material cut just right to fit today's hair styles, a visor that's no face concealer. Tailored and adjustable to fit any pretty head from just two sizes. Colors in yellow, rust and light blue. Keep this one on top!

In every store, department and shop across the country, men, women and children will stop in to snap up a cap, for wear under the sun...want to please them all? Then, sell the complete Congo line. You'll be pleased with the volume sales and you'll please your customers because Congo is the leader in style, construction and price.

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Directors of the Central Plains Turf Foundation inspect a bluegrass plot at the Kansas State College, Manhattan, experimental turf plots during a recent visit to the campus to lay plans for their 1954 research program. From left are: L. E. Lambert, supt., Oakwood G&CC, Dodson, Mo., president of the Foundation; Dr. H. E. Myers, K-State; Harold Glissmann, supt., grounds, Boys Town, Neb.; W. R. Yerkes, commissioner of parks and public properties, Topeka; Prof. W. F. Pickett, K-State, sec.-treas.; and Fred E. Wagner, McPherson arborist, vp. New species and variety mixtures of grasses—both cool and warm season—will be added to the work sponsored by the USGA, the Central Plains Turf Foundation, and Kansas State College. Research also will be continued on height-of-mowing and crabgrass control.

Out-of-Season Work Program

Undoubtedly many golfers would wonder as to the requirements for as many as 6 workmen on the course during the non-playing season. Some of the tasks that might be done are: removal of undesirable trees, pruning and bracing of trees, planting of trees and shrubs, repairing equipment, maintenance of structures, fence repairs, replacement of sand in the traps, winter sports facilities, cleaning out drain tile, and assistance to the club manager in the Winter renovation of the clubhouse building — just to mention a few.

As concerns the more technical aspect of our work, that of growing turf, let us start with the putting greens. The strains of grass now in general use in Chicago for greens are Washington (with numerous varieties), C-15 or Toronto bent, and the ever present, whether desired or not, poa annua. C-15 has gained prominence for several reasons. First, it is available in quantity and in close cut condition from local nurseries and, secondly, because it is such an early starter in the Spring and stays green much later in the Fall than the other grasses. Also it has the characteristic of growing upright without forming as much thatch as other grasses we have been using. The C-15 is rather vulnerable to large brownpatch and is not as hardy in resistance to heat as Washington is. The finer scattered over an area of 150 to 200 acres. Add to this the fact that 75 per cent of the staff is hired on a seasonal basis which usually means that a new group must be formed and trained each year.

The training of new personnel occurs during the Spring of the year when we are usually the busiest with the growing season and Spring application of chemicals. It is mainly due to this heavy load of training of personnel that it is most desirable to have an able assistant to the superintendent. The only solution to this labor problem that seems feasible to me is to minimize the problem by maintaining the largest force of full time employees that is consistent with both the funds available and the amount of work that can and should be accomplished during the Winter months. This would in all probability be about 6 men. At that rate 50 per cent of the staff would be well trained and available at all times.
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April, 1954
strains of Washington are still producing fine putting conditions and are still the favorite of most of the superintendents.

Reducing Disease Damage

Turf disease is still a major problem with us due to high temperatures and humidity, but is becoming less serious with more scientific study by our superintendents, cooperative research, and with improved products and equipment from the commercial field. Our main turf diseases are dollarspot, large brown, copper spot, helminthosporium, curvularia, snow mold, and pythium. Lesser diseases are anthracnos, algae and fairy ring.

We seem to feel that the annual use of ground limestone on greens during the Winter has reduced the frequency of dollar spot and that increased use of potash during the season has increased the resistance of grass plants to most disease attacks.

Since the days of Chlordane and DDT we have not been too concerned with insects on greens. By regular applications we have pretty well eliminated the trouble caused by angle worms, cutworms and ants. However, we are now observing that since we stopped using arsenate of lead, crabgrass and poa annua are more of a problem and in many cases superintendents are going back to the use of some lead regardless of its high cost.

Concerning topdressing; I suppose we are doing about the same thing that most other areas are and that is less and less use of topdressing materials. While I prefer to topdress all the greens at least once in the Spring, I sometimes only topdress a few. This is becoming a general practice. Now, too, that we have the Verticut mower we can keep thatch to a minimum and give more support to the theory of less or no topdressing. Those of us who have used the Verticut can testify that its use has definitely improved putting conditions thus far.

Greens Watering Delicate

The irrigation of greens is probably one of our most precise jobs in the Summer months. Too much water invites compaction and disease. Too little allows wilting and loss of poa. While no set rule may be applied as to the frequency of application of water to greens, I believe one might say that in general we water our greens about every other day. Many of the clubs have changed over to the center sod cup and water valve in the greens to speed up the job by the elimination of hose.

A most important factor in greens maintenance is the height of cut. In this re-

spect we do not follow any specific pattern as a district. I believe most of the public courses cut at about ¼ in. in the Spring and raise up to 5/16 in. in the summer. Some may go right through the season at ¼ in. The private clubs generally cut down as low as possible in the Spring and then hold about ¼ in. through the summer. Personally I start out about 3/16 and graduate to ¼ and sometimes as high as 5/16 due to puffy types of bent on some of our greens. The amount of traffic over your greens seems to be a most important factor in this decision along with the type of grass that you are dealing with.

Greens Fertilizing Varies

Fertilizing practice on greens is so varied that I shall not speak for anyone but myself. We usually follow a program that really starts about November 1st. At that time we apply an organic fertilizer at the rate of 20 to 40 lbs. per 1,000 sq. ft. We find that this brings the turf out much earlier in the Spring. Then during the Winter we apply 10 to 20 lbs. of agricultural limestone dust per 1,000 sq. ft. In the early Spring we apply 20 lbs. of 5-10-5 fertilizer per 1,000 sq. ft. From then on to Fall we use monthly applications of Nugreen and potash as a liquid spray at the rate of 1 lb. of Nugreen and ½ lb. of potash per 1,000 sq. ft. The Nugreen is 44 per cent nitrogen and the muriate of potash is 63 per cent potassium. In the Fall we usually use one or two applications of Milorganite. This is a very economical program when you consider that the monthly liquid treatments cost about 50 cents per application per green for material.

The weeding of greens is not too important when you are feeding well, except for crabgrass. To combat crabgrass we are going back to the use of some arsenate of lead and also beginning to use the phenyl mercury solutions.

Aeration of greens is another one of those practices that is hard to tie down as to general practice in our area. We all seem to have our own ideas as to the proper method, even though we agree that aeration is needed. Knowing the variations in soil previously mentioned, there is no doubt need for various methods of aeration. At Beverly our need is not so much for soil cultivation as it is for soil and thatch perforation. We find it difficult at times to get water penetration through the turf.

As to renovation and rebuilding of greens surfaces; most of our clubs attempt to do one or two greens per year if needed.

(Continued on page 82)
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This beautiful little clubhouse between a lake and the first tee, was built from a dirty, dilapidated old structure.

"Home Town Boy" Makes Good With Pals Building Club

By HOWARD J. FIFE
Mgr., Guthrie (Okla.) Golf and Country Club

LOOKING BACK now, at the hard work and headaches in the task of getting the Guthrie (Okla.) G&CC into its present condition, I don't believe I would have the nerve or the energy to attempt such an undertaking again; but Mrs. Fife and I are very happy because we feel as if we are doing a worthwhile thing in making our members proud of our club.

We feel as if, after being gone from our old home town for many, many years—our contribution to the community, as a whole, fills a great need. We are proud to know that our efforts are appreciated.

Both Mrs. Fife and I were reared in this little town. We were married here — our boy was born here — and we have many friends in the community. The fact that our son, Phil, after many years of study, came back to Guthrie to establish his medical practice — and his family of a wonderful wife and three sweet little daughters—naturally made our desire, when we tired, more intense to return "Back home". After being gone for almost 30 years — from 1921 to 1950 — we were tired of cities.

We had reached the age where we realized that old friends are the best — where everyone calls everyone else by his first name, and where one can really enjoy life without being pushed around.

I have received a great deal of personal credit for building the Guthrie G&CC; but all I have done is practice the first rule in salesmanship — make others want what you have to sell.

To make anything sell there first has to be the need — and there certainly was a need for this club in a thriving community of 10,000. There was no place for the young folks to go and enjoy themselves except at beer joints at the edge of town and along the roads.

This was a thriving club back in the 20s. True, we had no food facilities. We brought our own food. Families would get together, each bringing different dishes and we all had a wonderful time.

We swam in the lake instead of in a modern pool. We had sand greens instead of bent grass. We danced on an old screened-in porch.

(Continued on page 52)
Howard J. Fife stands against the wall of a pro shop he has built and stocked to give Guthrie golfers big-city shop service.

East Wall of the Guthrie pro shop shows additional evidence of the shop's valuable service.
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