fact that a laborer who is willing to work and who has a good job with a good salary will produce more efficiently and with less direct supervision than one who has no real motivation. Golf clubs, on the whole, are far behind the times in the compensation which they give their employees for the fine jobs that they do. Not until they lose their best workers do they realize how little they save by their attitude.

Along the same line, more effective labor production could be achieved by many of the older clubs (broadly speaking, those in existence for more than 20 vears) if they were to do some remodeling and building in order to get the most out of their modern equipment. Sharp banks and high mounds that prevent the use of power greens mowers or aerifiers or prevent the trimming of greens and traps with tractor equipment cost the course superintendent much in time and labor spent in caring for them with oldfashioned hand methods. With the elimination of these hazards the men needed to care for them could be freed for odd jobs that otherwise would not be done getting corners cleaned out, that creek bank mowed, ball marks on the green lifted, or those tee divots cared for.

This past season has been one of the toughest known to golf superintendents. Many have been on the job day and night fighting first the wet spring, then the driest summer in years which produced brownpatch, dollar spot, damping out, grubs and worms.

Of course, the crowning touch is to have some member say that the course is in terrible condition because he has lost a golf match, or maybe a golf ball.

Golf course superintendents are the hardest working group of fellows to be found anywhere, and they are certainly interested in their work. It would help a great deal if committee chairmen and club officials could look in at the association meetings or the national convention and see the interest displayed by the superintendents in not only their own problems, but in the problems of their fellow workers.

Remodeling Programs Required By WILLIAM A. BRADY Supt., Maple Bluff Country Club Madison, Wis.

One of the problems confronting futurethinking superintendents is the economical remodeling and reconstruction necessary to fit the modern golfer. Golf courses all over the country are going to be faced with the need for longer holes.

Top-notch golf pros in the last decade have been teaching classes of teen-agers, interesting increasing numbers in the game itself. Golf has become more important in school athletics, competitive and recreational. Also, increased leisure time and shorter working hours have increased the number of players on both public and private golf courses.

These factors have produced, and will produce, better average golfers. The score card for the most active golfer is no longer in the 90's but in the 80's and he drives a consistently longer ball, making golf on many courses more of a pitchand-putt game.

This will necessitate longer holes for golf courses that were constructed in past years. The problem is not always that there is insufficient acreage to change the situation, but that the remodeling is going to need at least a threeyear program, keeping in mind both economy and the golfer's right to have a well-groomed course at all times.

Another problem facing superintendents in the Madison and Milwaukee areas is that we can't get the proper sand for our compost. None of the local sand and gravel companies think it worthwhile to invest in screens to give us what we want, and the source of proper sand is so far away that the freight and hauling charges are prohibitive. As it reaches our sidings we would have to pay in excess of \$12 per ton plus hauling charges from siding to golf course. So far, we have not been able to work out a solution to this local problem.

Big "Headache" Is Labor By TREVOR E. JONES Supt., The Country Club of Fairfield Fairfield, Conn.

Many of the superintendents' headaches are minimized today by the wonderful work being done by experimental stations, the universities and colleges doing turf research, and the hard work of Fred Grau, Dr. DeFrance, and others like them. Our "tough nut" is labor; how to get help and keep it under the conditions that prevail in this area.

Bridgeport is a booming industrial city where anyone who can crawl to a time clock can double the weekly wage a golf club can afford to pay.

The days when a strong back was a requisite for a golf course worker are gone. The mowing is done by expensive precision machinery that must be operated by a person with at least average intelligence. Power machines can cause much damage, if not used correctly, to the machine itself, the operator or the green, which is the focal point of any golf course.

Men we wouldn't accept for employment on the golf course invariably find work in local factories and get paid more than a college man can demand after graduation.

It is impossible for golf courses to compete with these inflationary measures. Until the American economy and dollar bill return to normal, which we nor our children may never see, there can be no relief from this situation.

Regardless of problems such as this, today's golfers still demand perfection, and even after that, improvements. But they give no thought as to how a dollar can be stretched to entice a worker who will do a job to the best of his ability for less than a minimum factory wage.

New Problems In Watering By BOB WILLIAMS Supt., Beverly Country Club Chicago, III.

The most important problem confronting me in turf management today is the factor of fairway irrigation in the production of better fairway turf. I say this even though we have one of the best water systems by comparison to other clubs.

Our system is capable of producing 450 gals. per minute at 135 lbs. pressure at the pump. We can operate 11 sprinklers at one time with a center line installation and each sprinkler covering approximately a 200 ft. diameter. We can cover about six fairways in one night with one man operation.

Our fairway turf is comprised of creeping bent, poa annua and poa trivialis. This combination of grasses must be kept rather short if a good turf is to be expected. We have kept this turf mowed at approximately $\frac{5}{8}$ in. except in the heat of the summer time when we raise up to $\frac{3}{4}$ in.

So much for the briefing and now for the problem. When hot windy weather arrives in June, July and August we watch the moisture content of our tees and greens like hawks and sometimes find it necessary to water greens and tees at least every other day and sometimes every day. When this same condition applies to the fairway turf there is little we can do about it as it requires at least three nights to water the fairways only once. How then can we expect to keep not only poa but how about the bent? We can not. Consequently we lose turf and blame it all on the poa not being able to take the heat.

We do not lose the poa on our greens or tees because we have a moisture control but on the fairways I am stymied when I know moisture is needed to keep the turf from wilting and yet we cannot possibly cover more than about six fairways in one night.

When turf needs moisture after or before a day of high temperature and drying wind it must have it now and not two or three days later. I believe that if we are going to continue to try to grow bent fairways that have to be cut close we also have to make provisions to irrigate them in the same manner that we do for greens and tees. This means that we must increase the capacity of our irrigation systems so that we can water all of the fairways in one night. With such facilities we would lose very little poa and bent except a small proportion





Group attending Rutgers Field Day at New Brunswick, N. J. Turf specialists on hand for the meet included O. J. Noer, Milwaukee Sewerage Commission; Dr. Jesse DeFrance, Rhode Island Exp. Station; Dr. Fred V. Grau, Dir., USGA Green Section and Dr. Gilbert Ahlgren and Ralph Engel of Rutgers University.