TRAFFIC ON THE GOLF COURSE

by Lee Record, Agronomist USGA Green Section

The use of the golf course as well as public parks or other recreational facilities of this nature is on the steady incline, a hard fast incline, with little relief in sight in which to help ease the flow of traffic. Supply and demand is not easily reached.

Every 8 seconds a new birth takes place, and every 21 seconds a death. Every 2 minutes a new immigrant comes into our country. This is the trend of the flow of traffic which is taking place today.

Increased numbers of golf players have been witnessed this year, with an open season on the number of rounds which might be consumed in one playing day or season. What are the limitations of such facilities? Is there no end?

With this steady incline of traffic, many golf clubs and parks throughout the country, which at one time had adequate area to meet the demands of the people at large, are out dated. It's hard to realize and understand how a 1920 golf course, which was built for 50 rounds of golf a day or possibly a week, is taking the punishment trying to keep up with 200 rounds being played daily, or 10-1200 rounds a week. The club house has kept up with the traffic in many cases. It is not uncommon to see a 1962 style club house with a 1920 golf course.

The three hour average time for playing a round of golf is in the past . . . it is not uncommon any longer to spend up to 5 hours on the course to complete your game, and, how many days are required in advance to have a confirmed starting time for a Saturday morning match? We can add here . . . how many public parks must you pass before you can find a picnic bench or how long a wait do you have in a traffic line before you can get into the beach area . . . and then find the room to enjoy yourself? Regardless of the situation one is facing, one still has to face the traffic problem.

Traffic leads to compaction of the soil. In the case of the golf course, the most severe area to be dealt with is the putting green. Here is an area in which you are trying to maintain turf at a height of cut which is not always possible to maintain, the desired height throughout the entire playing season. Adverse conditions makes it impossible to maintain the high quality of turf which is required at all times. Members of their respective clubs expect perfection of their turf. They will not accept bare ground or concrete conditions. Traffic is one of the reasons causing this addititonal adverse condition.

Have you ever realized the damage that takes place on a green from the stand-point of the player's golf shoes? The average pair of shoes has 24 spikes. Now let us say that in holing out the ball, 30 steps are required in doing this. Multiply these two numbers (24 x 30) and you come up with 720 impressions per green. On an 18 hole basis you would average 12,960 impressions . . . this figure is for one person.

If we had 50 rounds of golf a day we would have 648,000 impressions. If we had 200 rounds a day, we would have 2,592,000 impressions. Let's take these figures on a 30 day basis. For 50 rounds a day on a 30 day basis we would have 19,440,000 impressions. For 200 rounds a day on a 30 day basis we would have 77,760,000 impressions. These figures not only indicate what traffic can do, but what

it is causing. The above figures only indicate an average of 30 steps per green . . . the next time you are on a green, count the number of steps taken . . . I'm sure you'll find 30 steps a conservative figure.

With this additional foot traffic on the course, less time is available for maintenance work to be done. The days and weeks are too short to keep up with the traffic and the damage that traffic is causing.

The volume of traffic on the golf course and public parks have led to many undesirable conditions of play and relaxation. Increased foot traffic on turf has added to help destroy turf.

We have spoken of foot traffic, yet we cannot forget the electric and gas golf carts. These carts are not helping the traffic problem in most cases. The carts are causing compaction, they are creating new roads on the course which must be maintained. These carts are going to create new rules of the roads, that is, if you can get the drivers to respect the rules which must be enforced in using these vehicles. Many accidents take place each year with the misuse of handling vehicles. One person was killed while operating one of these carts last year. License plates are required in many cases at many clubs throughout the country when a cart has to go across or go parallel with a country, state or village road going from one fairway to another.

The number of motorized carts are increasing at most every course, it is not uncommon to find 25-50 carts. In some of the Southern and Western States the total number of these motorized vehicles go as high as 150 or more per course.

With the increased number of carts, turf management has become a problem in the locations where these carts are being used extensively. When you can't grow turf, when resodding doesn't do the job, what alternative is left but to build or construct paths for these motorized vehicles to travel on. Today more blacktop paths are being installed to take care of the cart traffic. Blacktop seems to be the leading material being used around the country. Many shapes and sizes of design are being used in the construction of these paths.

These paths may range in length from 50 feet up to the entire length of the fairway. The paths are mainly in the rough areas and between the green and tee areas.

Whatever the case might be for establishing these paths you should take into consideration the usefulness these paths will make in the case of flood control or erosion, and also for use by maintenance equipment. The design and construction of these paths should be looked at closely and carefully. If we have to have them, let's get the most advantages out of them. In building these roads or paths get the best advice available when at all possible. You can't do a successful job with limited knowledge.

Foot traffic, motorized cart traffic, and also the hand cart traffic is taking a toll on turf, more of a toll than we like to admit.

What is this traffic problem leading up to? First of all we must consider the most adequate turf management program to meet this traffic problem. We must plant a program which will utilize the available materials at hand with the least amount of resistance.

Bruising of the turf and wilting of the turf are two of the main problems of concern with traffic on top of this to compound the problem. To maintain turf the crown and root of the plant must not be destroyed. The rate that the soil is compacted the slower the root growth. Weeds, insects and disease are always worse on irrigated turf where traffic is the heaviest. Under heavy traffic you must irrigate to bring about the recovery even though this practice adds to even more compaction.

Keeping up with a thorough job of aeration or cultivation and topdressing is most desirable to keep the thatch population down. Do not force feed your putting green turf at the wrong time of the season, or for that matter any turf. Good quality turf is not one which is green for the sake of getting it green too early in the season. Limited fertilization is required in the summer months (July and August) if none at all. Water management is the key at all times to maintain the quality of turf which will not suffer from mismanagement of watering practices. Too much water



will bring disease and too little water will bring wilt. Here many times we must spike our greens in the summer months to allow enough water penetration to help the turf survive.

Surface and internal drainage is an important factor in your turf management program. Green renovation might be ideal here in reaching maximum conditions for good management practices.

The fertilizer program is important from the standpoint of nitrogen timing. The solution, I'm sure, would be in using the RIGHT amount of the RIGHT kind at the RIGHT time.

Keep up with your soil analysis. Know what your soil is in need of to reach ideal growing conditions.



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Pin placements on greens and tee markers should be moved frequently, keep the wear and tear down on localized areas.

Winter injury plays a big role in the compaction of turf for summer's play. Temporary winter greens . . . or stress periods of the year should be looked at, as one way in reducing the compaction on greens. In extreme cases of stress, greens should not be played on, but are in most cases. Many factors should be looked into in more detail to see which area of your turf management program you may emphasize or de-emphasize to meet more desirable requirements from the standpoint of play and traffic.

Secondly . . . often many times the instructions for a good caddy are overlooked with the caddies doing entirely too much gathering on the greens and tees. It might be most advisable to have a good relationship between the caddy master with his instructions to the caddies, as to what a caddy should and shouldn't do. I have seen in many cases that the caddies stand off to one side of the tee as the player tees off, might not the caddy be 200 yards down the fairway looking after the ball in the landing area or what have you . . . thus we would have less compaction in this particular area. Secondly, on a approach shot to the green and after landing on the green it might be more advisable in this area for the caddy to give a putter and a wood or iron desirable for the next hole to the player and then the caddy would be able to be waiting at the landing area for the next shot from the tee . . . this would mean a lot less wear around the green, and from green to tee. This might not always be practical, I'm sure in many instances this would work quite satisfactorily, maybe not on the entire course, but on several holes. This is just another area to look at as a way in helping to reduce unnecessary traffic.

Today's traffic leads us to tomorrow's problems . . . today's turf management program will lead us in the direction of helping to solve these problems . . . we can add to them or can help correct them. Plan ahead in long range programming . . . try and keep one step in front at all times . . . traffic is here to stay and so is the game of golf.

WHAT IS A WEED?

Just exactly what is a weed? Many people have their own opinion and own definition of what a weed is. I like this one. Weeds are non-useful plants growing where they are not wanted. Most families in the plant kingdom contain undesirable species of plants. Weeds vary in form and growth habits. Many weeds are herbaceous independent plants, like the dodders;



