

Mulch Use Pays in Modern Fine Turf Production

By CHARLES W. PARKER

While scientific research and development of more efficient methods have accounted for a vast advance in production and maintenance of fine golf turf, at the same time sound and simple cultural practices of the past have almost disappeared. The use of mulch for protection and conservation of moisture of seedlings is one of the practices of the past that has been allowed to fall into discard.

When the availability of water on golf courses was limited to greens the use of mulch when seeding tees, banks of traps and similar areas was common practice. Today though over-all availability of water on golf courses is quite general the shortage of labor and the cost of labor hours dictate reviving any sound cultural practice that will help to hold down unit cost either by reducing hand operations or by releasing labor hours for other jobs.

For many years hay, straw or similar materials have been used to mulch the initial seeding of cut and filled slopes along the highways and on the more recent parkway and turnpike developments the end results of seeding the dividing strips and the shoulders have been definitely better because of mulching.

Penn State has conducted experiments on the use of mulch for seedlings on cut and filled slopes and other highway conditions and favors the use of mulching material carrying the seed that will produce the desired ground cover. There are many "ifs" in the application of this idea to field conditions. While it may sound interesting it is doubtful if the idea of making the mulch produce the seed can be successfully applied in the development of fine lawn or sports turf.

Having observed and then practiced mulching in producing ground covers under various conditions the opportunity came a few years ago to bring mulching over into the fine turf field. Time and again the results more than justified the practice.

Save Labor; Increase Germination

Today, when the labor problem is so acute, not only because of tight supply but also because, in general, the product of present day labor is low both in quality and amount any cultural practice that will reduce the number of labor hours required and aid materially in securing bet-

ter results warrants serious consideration by everyone who is charged with the production and maintenance of fine turf.

More and more the evidence is pointing toward the theory that the less cover on fine turf seeding the better germination will be. This being the case, and there are no valid reasons to question it, mulching becomes a necessity. Under this method, when the seed bed has been prepared the seed is broadcast either by hand or mechanically with particular care being used to broadcast as evenly as is possible. Hand raking, brushing or whatever method is usually favored to "work the seed in" is omitted, the seed is pressed lightly into the surface and the seeding operation is considered to have been finished.

At this point mulch will take over. Cover the area with two to three inches of light dry mulch and walk away from the job satisfied that it will require a minimum of attention until germination and a strong seedling growth has become established.

At any time of the year that soil can be worked seeding plus mulching may be done with no concern over the end results. The umbrella of mulch will conserve moisture so that the fussy and tedious hand watering operations will not be needed. It may be said at this point that if it is felt that, at seeding time, soil moisture is low and there is some doubt about depending on rainfall one watering on top of the mulch will satisfy moisture requirements. This is easily accomplished and working over the mulch cover reduces mechanical damage from careless or inexperienced workmanship to the absolute minimum.

Application Fool-proof

On large areas spread the mulch and wait until nature provides the required conditions for germination. Where a late season seeding has been made or where a very early Spring seeding has been done in the hope of getting the jump on the season, only to have a sulky nature upset the plans, there will be no need for worry or concern. Under the umbrella of mulch the seed will sit quite happy and content until nature smiles again and germination and growth conditions once more prevail.

Application of mulching material calls for no particular skill or interest on the part of laborers. Establish a depth of two

to three inches of light dry material and let the men cover the area, always working from the edges over spread material. The error will be too thin more often than too thick. In the case of light, dry, long fibered material the problem of too thick an application will not be serious.

Where old or heavy material that will soak up water has had to be used it will be necessary to check back and lighten the mulch where it has become matted. This will be particularly important once germination has started. Where a ground cover is being established the mulch is often allowed to remain and disintegrate. This method is justified on banks and slopes where coarser grasses are being used and where the end result is ground cover. For lawns and sports turf mulching should be removed as soon as a strong seedling growth has become established.

Generally mulching is removed too soon rather than being let stay on too long. When the seedling grass has reached the point in growth where the first cutting should be made is the right time to remove the mulch. No damage will result from raking off the mulch and while there will be some bleaching no harm will have been done and a few days exposure to light will restore any bleached grass to a healthy color. From that point on the cultural practices will be the same as for any new grass.

There seem to be no sound reasons why mulching should not be standard practice in developing turf for golf greens. The advantages are many, not the least being the control of seed wash and soil erosion from the heavy shower that almost always seems to come within a few days after seeding.

While no observations have been made on the use of mulch where the stoloniferous planting method is used there do not appear to be any valid objections. Surely where moisture control is as important as it is in this method of turf development mulching cannot be anything but a definite aid.

Too many times disappointing results have been obtained from stoloniferous plantings because the moisture level has not been kept constant. Either because of lack of understanding or because of disinterested workmanship watering was not done properly and immediate or unchecked growth was not maintained. Under these conditions the quality of the stolons is unfairly blamed, and as a corrective measure seed is introduced; thereby discarding the original justification for stoloniferous planting. Taking a less critical view and granting that stolons may require interim watering it must be obvious that this watering will be more

easily accomplished with a carpet of mulch to work over.

For the finer grades of turf where banks and slopes are too steep to hold mulch it is doubtful if the use of netting or soil anchoring are justified and it will be the better practice to sod.

In special cases where a soil binder or a ground cover is the main purpose of the seeding mulch can be anchored with a light covering of soil. In this case the coarser grasses will be used and the mulch will not be removed but will eventually disintegrate in place. The advocates of this method for over-all use like to make large claims for the value of rotted mulch as a source of plant food and soil conditioner. It does not appear that these claims have any real value.

"Refinements" in Application

The application of mulch does call for hand labor but it is not a fussy job and can and should be accomplished quite readily. A "refinement" of hand application is being used where the mulching material is put through an ensilage cutter and is blown onto the seeded area. On roadside seedings this method seems to produce satisfactory results though the fibres are chopped quite finely and make a cover more tight than appears desirable. Here, of course, the mulch will not be removed.

Some washing on relatively mild slopes was observed where finely chopped mulch was used and it may have been coincidence that on one seeding of division strip and shoulders the eventual ground cover was predominantly clover. Another "refinement" recently observed was where finely chopped mulch had been covered with a solid mat of soil. This was being done on relatively level areas as well as on slopes. Wherever possible the soil was being dumped in piles and spread with a grader. It will be interesting to observe the end results of this method.

These "refinements" have been noted here not because they have any place in the lawn or sports turf picture but as a mild warning. Today's thinking dictates that any job that can be done mechanically rather than by hand is being accomplished most efficiently. Unfortunately those of us who have to take the results of this unrestrained, "efficient" construction know all too well and to our sorrow what we are up against. The problems of fine turf maintenance have been multiplied and in far too many instances definite limitations on maintaining high quality turf have been built into an area because of these "highly efficient" and "up-to-date" construction methods.

Mulching material can be any long fibered hay, straw or similar material that can be most readily obtained. Many golf

courses have marginal areas from which satisfactory mulching material can be harvested. Often a lot of baled hay or straw has been broken from the bales in shipment or is of poor quality and can be purchased at a low price. Then there are local sources where salt hay, shore line thatch or cranberry bog trimmings can be picked up at low cost. The importation of first quality baled hay, straw or salt hay is not suggested unless there are no other materials available and even then it is doubtful if the cost will be justified excepting possibly for use on greens.

A few minutes balancing the cost of mulching material plus the advantages from its use, against the cost of hand watering, possible re-seeding and wash-out damage repair will determine how much can be justified for purchasing mulching material.

There are a number of collateral advantages gained from the use of mulch. It may not be practically possible to translate the advantages into terms of dollars and cents saved but they should be considered and credited against mulching costs. Mulch is not a one use material. When removed from an area the mulch should be stacked for future use. It becomes unfit for mulching only when it has broken down to the extent that it will flatten down into a tight blanket.

When fairway areas have to be repaired the mulch will give real protection against mechanical damage as well as washout. Foot traffic will do no serious harm and fairway units may be run over the mulched area with little disturbance to the mulch or the ground underneath.

When the subject of mulching for fine turf areas is introduced the first and most loudly voiced objection is that of weed contamination. Weed contamination is considered as being any plant seeded into an area that is not wanted in the eventual turf. It can be said here that nurse grasses should be considered to be weeds and by the use of mulch the need for nurse grasses, if there is such a need, is definitely ruled out.

Over a period of years I have observed only one case of weed contamination from mulch. In this case on a large area where a fairway had been widened then seeded and mulched with the hay from a pasture mix containing a high percentage of rye, fairly large areas developed the first year into what appeared to be stands of pure rye. As the season progressed the regular cuttings at fairway height apparently discouraged the rye and the permanent grasses began to appear. It had been assumed that the rye had dominated the permanent grasses but this proved to be wrong and by the second season the per-

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manent grasses have taken over completely.

In no other instances, over a period of years, where mulching was practiced on seedings for fairways, rough, tees and nursery areas has any weed contamination been observed that could be charged to the mulching materials used.

Another objection is the fire hazard. It must be admitted that there is the possibility of accidental firing of mulch but it appears to be highly improbable. This has been demonstrated repeatedly where mulch has been used around parking areas, along walks into buildings and access paths in recreation areas where the general public has gone back and forth in large numbers. As yet not one case of accidental firing has been noted.

Let no one make the mistake of thinking that the practice of mulching seeded areas is advocated as being anything but a very valuable aid toward securing maximum germination and a strong seedling stand. Mulching will not correct or ease any of the errors of construction, poorly prepared seed bed or the unfortunate choice of seed. It will be a real mistake, however, not to give serious consideration to the use of mulch by anyone who has seeding to do.

"Boy Next Door" Junior Promotion Movie Released

Twenty prints of the U.S. Junior Chamber of Commerce golf film, "The Boy Next Door," are now being shown around the country. The film was produced with the cooperation of the National Golf Foundation and is a 16mm, color, sound production available to country clubs, golf associations, civic groups, etc., at no charge from the U. S. Junior Chamber of Commerce sports offices at 209 S. State Street, Chicago 4, Illinois. It depicts the story of the Jaycee junior golf program and has a running time of 22 minutes. Interested groups should allow 15 days advance notice in requests for prints.

Club Asks "What Are Green Committee Duties?"

A Michigan club official asks "what are the duties of a green committee? How far does the committee's authority extend in alteration of trapping?"

In trying to get the answer GOLFDOM found such wide variation in green committee responsibilities and authority at different clubs and such a vague idea of this committee's duties its' evident that the committee's function needs examination by club officials and course supts.

GOLFDOM asks its club president, green chairman and superintendent readers to write us what they think the duties of a green committee should be.