24th Year

Lawn Care

T.M. REG

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GROWING GRASS ON SLOPES

Developing a good lawn on a steep slope has been a real challenge to many lawn owners. However, it can be done and is worth doing well to preserve the property from erosion and to enhance the beauty of the landscaping around the home. To achieve the desired result, several factors need to be understood:

1. At the time of seeding a slope, the surface soil and seed may be washed away unless protective measures are taken.

2. Too much or too little moisture may be the plague of some terraces. Usually this is shy, because rain or irrigation water runs off and does not soak in as it should.

Excessive moisture may come from drainage from higher ground, resulting in seepage water which emerges from the surface of the slope. The result is soggy soil which not only prevents root growth and encourages moss, but also compacts like concrete in dry weather.

3. Slopes facing south or west, or toward prevailing wind dry out more rapidly than level areas.

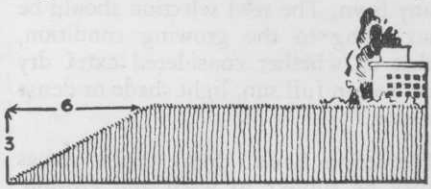
4. Too often the poorest soil is found on slopes because the good topsoil was scalped away in grading operations.

A good stand of grass can be maintained on a 25% grade, that is where the drop is not more than one foot in a distance of 4 feet. As the grade becomes steeper, the problem gets worse. The practical limit for a lawn is a 50% grade; that is, 1 foot of fall in a distance of 2 feet. More severe drops need special handling such as the use of retaining walls or ground covers.

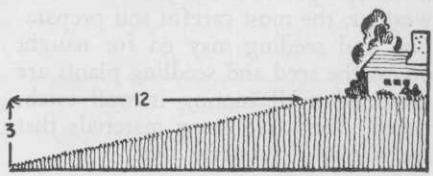
Success in growing grass on slopes will depend upon the relative severity of the natural difficulties and the maintenance program. These extra pains in the construction and seeding of the sloping areas will be well rewarded.

Grading and Seeding

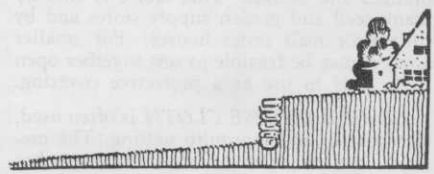
Of prime importance are gentle slopes at top and bottom of the grade. These are more easily achieved by working from the lower level upward when constructing the lawn. The bottom should be concave and the top convex so a mower is easily pushed up and down, that is with the fall of the slope and not crosswise to it. Sharp



Grade 1 ft. to 2 ft. (50%) This slope will be difficult to maintain.



Grade 1 ft. to 4 ft. (25%) Pleasing to the eye. Easy to mow, minimum erosion.



Dry walls and terracing solve a severe change in elevation from house to street.

angles result either in scalping or in uncut grass.

Insofar as feasible the soil should be of good physical condition. Stiff sticky clay, gravel or sand are definitely not good for level lawns and they are impossible for slopes.

Fertilize Liberally. This is important in preparation for any lawn seeding, an absolute must where turf will be struggling against severe erosion. A generous supply of lawn food is needed starting at the surface to a depth of four inches. If there is a possibility of the soil being acid, mix ground limestone into the topsoil, using about 5 pounds on each 100 square feet.

Seeding. Some have the idea that the terrace problem is solved by planting a brand grass seed mixture indicating its special adaptation for slopes. The claims are made that the grasses are deeper rooted, thicker and more drouth resistant. These qualities are desired in any lawn. The seed selection should be according to the growing condition, that is, whether considered extra dry or wet, in full sun, light shade or dense shade.

Protecting Seed. Even gentle slopes may be subject to wash and erosion. Steeper grades present more of a problem. Except for a lucky break in the weather, the most careful soil preparation and seeding may go for naught unless the seed and seedling plants are protected until rooting is well established. There are many materials that are helpful if properly used.

EROSIONET is the trade name of an open mesh material such as used for shipping oranges and onions. This fabric is sold by many seed and garden supply stores and by the major mail order houses. For smaller areas it may be feasible to sew together open mesh bags to use as a protective covering.

COARSE CHEESE CLOTH is often used, also muslin and mosquito netting. The material may be removed after the grass has started but on steep slopes it is better to keep the protection and allow the fabric to rot on the ground.

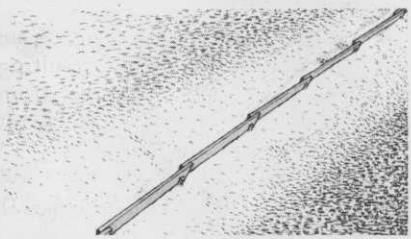
BURLAP of the lightest weight obtainable offers good protection. It must be removed before the grass is ready for its first cutting because of smothering effect of burlap.

ANCHORING the fabrics is a necessity. Large nails are often used but unless they are all removed, injury to the lawn mower may result. Probably the safest thing is to use notched wooden pegs to engage the material.

STRAW may be used as mulch. A couple of inches is usually enough, the loose surplus being removed as the grass gets started. It is best to use pegs and interlaced cords to hold the straw in place.

Any of these coverings will have a secondary benefit of helping to retain moisture.

Using Sod. Very steep slopes are often sodded but many times the results are not good because of poor sod or careless laying. The soil preparation for sod should be as thorough as for seeding. A generous amount of lawn food (and lime in acid soils or gypsum in compact alkaline soils) under the sod, hastens rooting and anchoring. It is well to use wooden stakes to hold the sod in place. On long grades, one foot strips of sod may be laid horizontally along the slope at three or four foot intervals to help break up the flow of water. The soil between the strips should be seeded in the usual way.



Boards placed cross-wise of the slope of a newly seeded lawn.

Extensive New Seedings. Sometimes the area involved makes the cost of mulching or sodding prohibitive. In such cases the run-off water may be controlled to reduce erosion damage by standing 1 x 3 lumber on edge to intercept the flow of water. These are staggered crosswise of the slope and inclined slightly downward to carry off the water before the volume and speed of flow reach damaging proportions.

Maintaining Slopes

A firm rolling or tamping is advised after seeding. If facilities are available, follow with an immediate watering with a fine spray controlled to forestall washing. Try to keep surface constantly moist until grass is well rooted.

In most places in the West, summer is a good time to seed slopes because then there is almost no rainfall and washing is prevented by careful watering.

The most difficult feature of maintenance is proper mowing. Most terraces are scalped at the crown because they are cut cross-wise instead of up and down. Higher cutting is doubly important to partially offset the unfavorable growing conditions of most sloping terraces.

It is advisable to feed steep slopes at least four times a year because so much nutrient material is washed out by the surface water.

In hot weather, many soils tend to become hard and compact. This prevents proper root development because the soil sheds water and there is a lack of oxygen in the soil. The condition may be alleviated by "aerating." This consists of making sizeable perforations into the soil, 3 or 4 inches deep and at 6 or 8 inch intervals. Quite a few hand tools for perforating and aerating are now on the market.

A spading fork may be used and will probably help if it is driven in deep enough and worked back and forth to make a good size opening. Few tools can be forced into a heavy soil if the drying has been severe. Quite a number of power aerifiers have been developed. These are too costly for the typical home lawn but in time landscape contractors will probably have them and offer regular aerifying service. It is advisable to feed and water generously after making the openings in the soil.

It is difficult to get good results by sowing seed on thin or bare places of slopes. Aerifiers' holes provide a lodging place for seed though some may be buried too deep. Another aid is to use a spiker or disc to make holes or slits on the surface where the seed may lodge. Thus protected the seed is in better position to receive moisture needed for germination and seedling growth. *See Lawn Care 117.*

WINTER INJURY

Fungus disease in turf is commonly associated with hot humid weather but such is not necessarily the case. The most vital factor is moisture in liberal quantities.

Heavy, compacted soils, because of their poor drainage, are conducive to fungus development. That is another good reason for improving soil texture before planting a new lawn.

Acid soils which exist in the coastal counties of northern California as well as western Oregon and Washington, favor fungus activity. Fall is a good time to apply lime to reduce this acidity.

Excessive amounts of partially decayed organic matter act as a host on which fungi develop, then when moisture and temperature conditions are just right they attack the living grass plants. Raking the lawn vigorously in late fall is in order if grass clippings have been allowed to remain in the lawn for an extended period. These clippings are deposited at a faster rate than they decompose so that a mulch is built up. In dry weather this has the beneficial effect of reducing moisture evaporation, but in wet weather it makes a soggy mass ideal for fungus growth.

In California, western Oregon and Washington where winter rains keep the soil saturated for long periods, brown spots may appear in December and January. These take the form of

small circular blemishes only a few inches in diameter but some of them merge to form larger irregular patches as shown in the illustration.

In the colder climates fungus may develop when heavy snow falls on a saturated turf before it has become dormant.

If this condition exists long enough grass in the attacked patches will be killed. The remedy then is to wait until spring, brush out the affected spots and reseed.

Where damage of this sort has happened before and so can be anticipated, applications of a turf fungicide can be put on as a preventive—that is before the damage occurs, in an attempt to prevent its happening.

Certainly at the first sign of disease, the lawn should be treated to arrest the damage. Golf courses have long used mercury successfully. There are various turf fungicides on the market but possibly the easiest way to apply mercury is to use SCUTL. It can be broadcast by hand or with a Scotts spreader. The normal rate application is suggested.

Fairy Rings

Another type of fungus that shows up in wet-winter localities is the interesting but annoying Fairy Ring.

Typical appearance is a perfect circle or portion of a circle one to several feet in diameter, in which mushrooms or toadstools develop. These are the fruiting bodies of the fungus and are not always present. At the center and outer edge of the ring the grass is darker in color.

In general, chemical control has not proven satisfactory because the fungus grows too deep for the chemical to penetrate. Later in the spring the area can be aerated by spiking and then fertilized to aid the grass in its recovery.

If you have had success in controlling Fairy Ring you are invited to share your experience with other readers. LAWN CARE welcomes any letters telling of the solutions to common lawn problems. Just address your note to Scotts at Palo Alto, California.

Mowing Wet Lawns

Wet grass does not cut clean. Then too, the lawn is likely to look ragged soon afterward because the mower wheels mash down the moist foliage. When the grass dries and springs back, the wheel tracks show up as streaks of long uncut grass. During the fall season when dews are heavy, wet lawns present a problem.

One reader of LAWN CARE dries his lawn by cutting a hole in the bottom of a burlap bag, slipping the handle of a broom through it and dragging this back and forth across the lawn. This is no doubt helpful, but only practical on small lawns.

On larger areas mechanical leaf sweepers like the one illustrated may be utilized for the same purpose. They offer the additional benefit of picking up wet leaves before they have much chance to mat and smother the grass.