

Lawn Care

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THE TERRACE PROBLEM

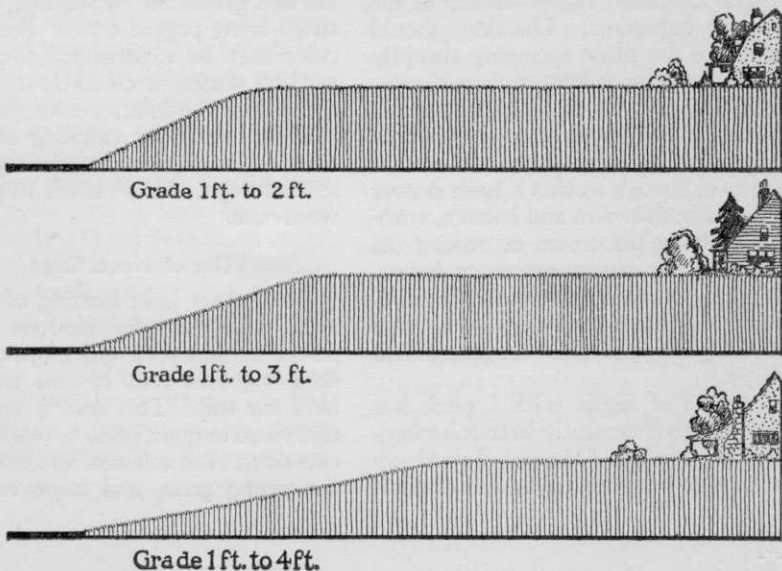
We are indebted to Mr. William A. Strong, well known Landscape Architect of Cleveland, for help in preparation of this article

TO most of us it seems difficult enough to get a good lawn on an even flat surface. But the person attempting to get good turf on a sloping terrace has his problems multiplied several times over. Trouble with terraces begins with the original grading and soil preparation and continues through the following years' of maintenance.

The establishment of turf grasses on sloping surfaces is accomplished by seeding, by seeding and mulching, by sodding, or by a combination of seeding

and sodding. The method selected depends upon the following factors: finished results desired, time allowed for maturity, and cost.

Today there should be no need to explain the importance of soil preparation for the growing of good stands of turf grasses. Preparation of the soil for slopes is even more important than that for level lawns, since by reason of its pitch it is subject to washing in wet weather; it is usually drier than the lawn below, especially so in suburban developments where there is no ex-



tensive flat land above to furnish a continual underground water supply. Slopes facing the sun are more exposed to drying action of sun and wind than flat land, because the sun's rays strike the ground at an angle nearly 90 degrees all day. It is necessary to supply to the sloped land all the preparation bestowed on level land, and, because of its unfavorable exposure, additional attention is required to equalize the differences between the level turf and sloped surfaces.

Soil Preparation and Seeding

One of the most important factors is deep soil preparation. If given an opportunity grasses will produce deep roots. This is particularly desirable on dry terraces because such roots can draw upon the deep subsoil water supply and so remain fresh longer than shallow rooted grasses. The minimum depth of soil preparation for slopes of the order one to four and steeper is at least six inches and deeper if the outlay of money is not prohibitive. A liberal amount of organic matter should be worked into the soil by means of well rotted manure or German peat moss.

The treatment of the surface of the slope is important. The slope should not be a flat plane springing abruptly from the lawn below, ending sharply in a ridge cut off as if by a powerful knife. Both the bottom and top should be rounded, the upper convex, the lower concave, enough so that a lawn mower will cut both crown and bottom, without scalping the crown or making the use of sheep shears necessary below. Washing on such surfaces is at a minimum. In fact, natural slopes which are at rest geologically have in general this shape.

Seeding of slopes with a pitch less than one foot vertically to four horizontally is practical. Occasionally a cloud-burst will wash out the seed, necessitat-

ing re-seeding. The slope of one to four covers considerable ground space horizontally and protective measures are unduly costly for the benefits derived.

Slopes with pitches steeper than one to four, but less than one to three are approaching a dangerous slant from the point of view of washing. If one is willing to assume the risk of a wash-out, protection may be omitted. The most economical protection is a two to three inch layer of clean, chaff free straw, reduced one-half in thickness after the grass seedlings are one half inch high and removed entirely when they are one inch long. Slopes steeper than one to three to a pitch of one to two require some definite method of protection from washing. Perhaps the most satisfactory system is to lay a strip of sod at the top and bottom and cover the intervening area with a cheap muslin or cheese cloth made for this purpose. On long slopes of this pitch where muslin would be costly to lay in large quantities, one foot widths of sod may be laid horizontally along the terrace at intervals of three feet or more and the open spaces mulched with straw. Steeper slopes than one to two are best protected by sodding, the sod strips being pegged down. Some difficulty may be experienced even with pegging during a cloud-burst. If the situation will permit, a temporary open shallow trench for catching excessive run-off, parallel to and at the top of the sodded slope, will do much to prevent wash-outs.

Use of Nurse Crops

At times a light seeding of oats is made with the grass seed on the assumption that their quick growth and their vigorous root system will help bind the soil. This does happen but there is some question as to whether the oats do not rob soil moisture needed by the young grass, and cause excessive

shade. If used, the oats would be cut with a sickle or scythe as soon as they have made three or four inches of growth.

There is some grass seed sold that is supposed to be mixed for slopes, the theory being advanced that the grasses are deep rooted, or form thick close turf, or withstand drouth. These are extremely desirable characteristics for a normal lawn, and such grasses should comprise any good standard lawn seed mixture. Of course shaded terraces require special seed varieties.

Seeded terraces need careful rolling or tamping to firm the surface soil. Water should be applied as a very fine mist and often enough to keep the soil continually moist until the young grass is well established.

Maintenance of Terraces

THE most difficult feature of maintenance is proper mowing. Most terraces are scalped at the crown because they are cut horizontally instead of vertically. Then too the grass, as in the case of level lawns, is cut too closely, so that the crowns and roots are exposed to the direct rays of the sun.

At least two or three applications per year of a special grass fertilizer are necessary. This is needed to replace the soluble plant food removed by the excessive washings to which terraces are subjected. For the same reason they should be topdressed with good screened soil, containing at least one-fourth bulk of finely ground peat moss, every spring and fall. If needed, it is well to sow before topdressing.

Moss often appears on terraces. This may be due to deficiency of plant food or to the presence of an excessive amount of seepage water during late winter or early spring. This water drains from surrounding higher ground

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More About Dandelions

Good-natured rivalry has marked the free-for-all contest between the two footed enemies of the dandelion who are vying with one another in trying to find the most novel, yet effective, method of administering knock-out drops. Colonel Skinner, Medical officer of Omaha, Nebraska, sticks to the tools of his profession by using a glass syringe. Mr. Peterson, Editor of *Better Homes and Gardens*, soliloquizes (see March-April '33 *Lawn Care*). Now Major Robert L. Berry of Short Hills, New Jersey, perhaps of a less gentle branch of army service, uses a galvanized iron tube. We quote as follows: "In your March-April issue of *Lawn Care* I note an army doctor going for dandelions with a hypodermic needle and gasoline. A much easier way it seems to me is to take a hollow tube of galvanized iron closed at the bottom with a cap and brass valve—the valve stem projecting through the cap. Fill the tube with crude *carbolic acid*—it holds a little better than a pint—place the valve stem on the crown of the dandelion and a light pressure puts a spoonful or so just where you want it—exit dandelion. In a day or two the leaves turn yellow and in a few days more the root is destroyed. This tube which I bought in a hardware store in Summit, N. J., for 50 cents is about the length of an ordinary cane and can be used without bending over. If you are going to use a hypodermic needle one might almost ask, who holds the dandelion!"

"For the past two years I have been using Scott's Turf Builder and find it much superior to any other plant food. Because of its high analysis much less is needed. This results in a saving of about one third in the cost of feeding an average lawn."—F. N. HILTON, JR., Landscape Architect, Pontiac, Michigan.



Terraces (Concluded from page 3)

and its damage can only be prevented by correct installation of tile drainage.

It is sometimes advisable to turn to something other than grass to solve the really steep terrace problem, such as the use of walls, boulder slopes covered with suitable ground covering plants, or the planting of the slope with a persistent plant, either shrub, vine or herbaceous material, depending upon the planting effect desired. When low evergreen herbaceous material of the ground-cover type is desired Myrtle (*Vinca minor*), English Ivy (*Hedera helix*), Japanese spurge (*Pachysandra terminalis*), or some of the dwarf evergreen Veronicas can be employed. When there is no objection to the loss of the green color of the leaves during the winter Carpet Bugle (*Ajuga reptans*) may be used, and where a coarse foliage texture would be acceptable, Hall's Japanese Honeysuckle (*Lonicera japonica halliana*) with its long-persistent green leaves can be considered. There are numerous other plants suitable for slopes with varying degree of persistence of leaves and texture of foliage. Recently there has been offered a native evergreen moss-like plant called Creeping Selaginella (*Selaginella apus*) preferring clay soil which is moist and semi-shaded.

Following our suggestion in the last issue of *Lawn Care* that readers send us their solutions to the terrace problem we have received many fine letters on the subject. Our space is too limited to print all of them this time but we are glad to pass along some that may be of particular interest.

Here are several good suggestions made by J. R. Abbott of Sweet Briar, Virginia: "I should like to advise that I have had very good results in growing grass on terraces by preparing the soil as you would for level ground, then plant the seed as usual and stamp the whole terrace

with a board about eight inches wide and three feet long to secure a compact surface.

"Then the entire terrace is covered with ordinary plantbed canvas, which is a thin grade of cheese cloth; to put this on you start at the bottom of the terrace and put one strip down and fasten the bottom edge with wooden pegs about six inches long, then follow this with another strip, lapping it over the first about two inches and peg this down in the same manner, after this is done the whole terrace is well watered. This will protect the grass seed and also prevent the terrace from washing. After the grass is up about an inch or more part of the pegs can be taken out (i. e. gradually remove the covering) to allow the grass to become hardened to the sun gradually."

M. W. Barnaby of Lansing, Michigan, seeds his terraces in this way: "After I have formed my terrace or mound as the case may be, I roughen the surface with a garden rake, then sow the seed, taking care that the heaviest seeding is at the top of the terrace, allowing for a certain amount of washing down. After the seed is sown rake it in by raking up from bottom to top to avoid seed settling to bottom. After raking in the seed, sprinkle with a very fine spray until quite wet. After which you cover the terrace with one thickness of coarse burlap. Press burlap against terrace and spray again which will cause the burlap to adhere to the terrace, then keep burlap damp at all times which will not only mulch the ground, keeping it moist but will also hold the ground and seed from washing. The grass will come up through the burlap, which will rot away in a very short time, leaving an even lay of grass all over your terrace."

Mr. Howard Deming has a different method of procedure: "I think this is a brand new idea for growing turf on lawn with slight slope, where rains are liable to gouge small ditches before grass roots have become well established.

"Prepare the soil and seed as usual. Smooth surface well. Cover it all with cheapest mosquito netting obtainable. Peg it down with a number of small wooden pegs, each peg to have a notch near upper end to catch in netting. Cover netting with very light covering of earth and then roll. The rolling will press down the pegs so that they will not make any trouble later."

"Your lawn enricher (*Turf Builder*) certainly has given my lawn a new deal."
JAMES F. WHELAN, 108 Circle Drive,
Hastings-on-Hudson, New York.