

Solid sodding (block sodding, also frequently simply referred to as sodding) is the complete covering of an area by strips or blocks of sod. This method is by far the most expensive because of the large amount of material and labor required. It may be used to advantage, however, on lawns, drainage channels, and areas adjacent to catch basins along highways and runways where immediate cover is necessary.

Topsoil Planting

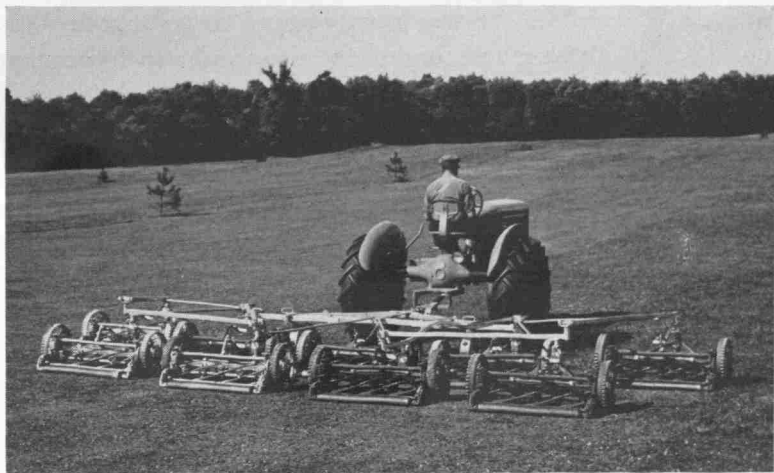
This method, which is otherwise known as broadcast sodding, mulch sodding, or grass mulching, has been used rather extensively in the establishment of turf, particularly in the South. It is a method which combines the spreading of topsoil and planting in one operation.

The area to be planted is graded to any desired depth below the finished grade, sometimes as little as 1 to 2 inches. Topsoil obtained from a field upon which a desired grass is growing is then spread over the area to fill up to grade. The grass is indiscriminately mixed with the topsoil during the moving process and under favorable conditions resumes growth in the new location. When the soil used is dark in color and obtained from swampy areas, this operation is usually referred to as "mucking," which has already been described.

MOWING

One of the most critical periods in the establishment of grass is that time between germination, or beginning of growth in the case of sprigs, and the development of a good cover. If weeds are allowed to grow unmolested during this period the grasses suffer badly or may die due to competition. Usually such losses can be prevented if sensible mowing is practiced

during the early stages of development. Proper height and frequency of mowing are largely determined by the types of grasses of which the turf is composed and the use to which the turf is to be put. Generally speaking, mowing which develops



Reel type gang mowers may be effectively used on large open turfed areas. This type of mower is operated at a higher speed and is much more effective in controlling weeds than the ordinary sickle-bar type. The time required for mowing may be kept at a minimum by using 7 or 9 unit gangs of these mowers.

the maximum density of turf and keeps down the taller growing weeds without damaging the grass may be termed sensible mowing.

Even after a good stand of grass develops, mowing is still important. In the case of airfields and similar areas, however, mowing closer than $2\frac{1}{2}$ or 3 inches is not necessary and should be avoided. The best service will likely be obtained on such areas from the use of a reel or a rotary type mower rather than the sickle-bar types. Mowing should be done when the grass

requires it rather than at set dates. Naturally more frequent mowings will be necessary during the periods of greatest growth.

During seasons when there is little or no growth of grass, mowing can be eliminated entirely provided weeds are not present. If troublesome weeds are present they must be kept mowed to prevent smothering of the grass and also to prevent their seeding.

WATERING

When large areas are being put into grass the high cost involved in the application of water in amounts sufficient to be of any value will probably prohibit its use. Since the addition of more than 27,000 gallons of water to the acre is necessary to equal 1 inch of rainfall, it is obvious that watering at the rates that will help the grass will be extremely costly on large areas. On small areas, where costs are not a limiting factor, watering is often advisable, particularly during the germination period, and before the start of growth in the case of sprigs.

RENOVATING

Whenever possible, old existing turf should be preserved, for it takes much longer to grow tough turf than is ordinarily realized. In some portions that are slightly ridged or uneven it is possible to improve the old turf by cutting in various directions with a sharp disk harrow. The harrow should be set almost straight so that it will cut into the turf but will not turn it over. If reseeding is to be done, a drill may be used so that the seeding and cutting may be done in one operation. The turf should then be fertilized and rolled. This treatment given to old Bermuda grass turf in the spring or to bluegrass

turf in the fall results in noticeable benefits. In treating old turf on stiff clay soils, an application of coarse sand in addition to this cutting will benefit the turf by improving the soil structure.

SELECTION OF GRASSES

Grasses, to be useful for lawns, pastures, golf courses, etc., must meet certain specific requirements adapting them to the purpose for which they are selected. Likewise, if turf on an airport, roadside, or cantonment area is to be successful it must be composed of plants capable of meeting the requirements of such turfed areas. Among some 1,100 known species of grasses occurring in the United States only approximately 30 have been used for turf purposes. This does not mean that others may not be used. It merely indicates that in the past their use for turf has not been investigated.

A grass selected for use on airfields, roadsides, drill fields, and recreation areas should be tough and resistant to the rough usage to which such areas are subject. Far more important than the fine texture sought in lawn grasses is the ability to withstand wear and tear of heavy traffic. Since turf on many areas is often required on relatively short notice, rapid growth and the ability to "cover up" quickly are also of major importance in the selection of the grasses. In many cases, dust, so detrimental to the motors of planes and other mechanized equipment, can best be checked by the rapid establishment of a grass cover. Any turf subject to wear by planes, trucks, etc., is likely to suffer badly from scars unless it is composed of rapidly growing species which heal quickly.

The selection of grasses that require minimum maintenance costs is of considerable importance. Other factors being equal,