

ing these clippings on the turf is not recommended as thatch compacts and shuts out water, air, and nutrients. If thatch is allowed to accumulate, the roots of the grass are forced to the surface in order to obtain these elements, thus leaving it susceptible to drought.

Not all thatch need be removed however; a 1/4 inch layer aids in moisture retention and weed control. Dethatching should be done periodically, especially during the growing season when the grass is mowed most frequently. Dethatching one or two times during the season is not unreasonable. The area should be gone over twice at each dethatching, criss-crossing in order to make certain the entire field is covered. The thatch may then be collected and removed.

Liming

General recommendations call for an application of 60 to 75 pounds of ground limestone (50 pounds of hydrated lime) per 1000 sq. ft. every three to five years. It is advisable, however, to have a soil test made to determine if lime is needed. Caution should be taken not to apply more than 50 pounds of lime per 1000 sq. ft. at any one time. If more is required, divide the total amount in two equal parts and apply the first half immediately. In sandy soils the second half may be applied the next year but in heavy clay soils, the remaining lime need not be applied for two or three years.

Due to natural soil conditions in some areas of the state, sulfur or aluminum sulfate will be needed rather than lime.

RENOVATION

Renovation of athletic fields should begin as soon as the season is over and the last game is played. The field should not be used again until the beginning of the next season. Sometimes, however, it is necessary to repair the field during the season. If this is the case, the best method for the situation must be used, though a good renovation program should be continuous as standard procedure.

Overseeding

Overseeding is an operation to re-establish turf in thin areas and aid grass already growing. The first step is to aerate the field several times (six to eight passes). Then lime, (if needed), and fertilizer

(25 to 30 pounds of a complete fertilizer per 1000 sq. ft.) should be applied. Using the same seed or seed mixture as that originally growing, reseed at the same rate as for newly established turf for badly worn areas and one half the rate for areas not so badly worn. Drag a piece of cyclone fence or steel doormat over the field to break up the aeration cores and work the lime, fertilizer, and seed through the turf and into the aeration holes. Water the area well.

Though not generally recommended, ryegrass or bermudagrass are used for quick recovery and to serve as a temporary cover. This is done when sufficient time lapses between games to give these grasses time to establish a cover.

Sodding

When the field is in continuous use, reseeding is not effective and is a waste of time and money. If this is the case, the only effective method of repair is to resod the area. Remove the old sod and prepare the soil as if establishing a new turf and sod the area as previously described. It would be advisable to maintain a sod nursery to have turf ready and available when needed.

SUMMARY REMARKS

An athletic field is only as good as its initial construction, that is good orientation, proper drainage, which includes the installation of drain tile and grading, and a well established maintenance program, to include supplemental watering, mowing, fertilization, and soil conditioning. There are no set rules which apply to all fields because of financial situations, extenuating circumstances, and maintenance practices. This publication should be considered only as a guide. There are many combinations of operations and materials used which will obtain satisfactory results and it is impossible to list all variations.

There are those individuals and institutions which will be able to give specific assistance on the construction and maintenance of athletic fields to meet particular situations. Landscape architects, engineers, soil testing laboratories, experiment stations, etc., these individuals or agencies should be contacted and all plans made including working out all details before construction begins. In the long run many hours of labor and dollars will be saved.