

There are a few areas in West Virginia where warm season grasses including Zoysia, Japonica-Variety Meyer, and bermudagrasses, may be considered. Of the bermudas, U-3, Tufcote or common bermudagrass are recommended. U-3 and Tufcote Bermuda and Zoysia must be established by sprigs or plugs in the spring. In instances where seeding is preferred, common bermudagrass may be used and an acceptable turf obtained. Seed at the rate of 2 lbs. per 1000 square feet for hulled seed and 5 to 10 lbs. per 1000 square feet if unhulled seed are used. It should be kept in mind that these are warm season grasses and will turn brown at the first frost. There are however, grass dyes which are available which color fields green and give it a better appearance.

Mixtures vs. Single Species or Variety

Whether single varieties or mixtures are used depends greatly upon the amount of use and maintenance the field receives. Experiments have proven however that when zoysia or bermudagrass is used, it should be grown alone.

If mixtures are used, they should be of the same species, for example, mixtures of bluegrasses or of fescues. In mixtures which contain Kentucky 31 fescue, at least 70 to 75 per cent Kentucky 31 should be included. This grass produces large clumps and in order to obtain an even surface, it is necessary that the greater percentage of the mixture be of this grass.

It is not advisable to use nurse grasses, such as clover or annual rye, as these only delay the establishment of permanent turf. Annual ryegrass will form clumps of dead stems which must be removed mechanically to avoid an uneven playing field. Clovers must be eradicated with herbicides which only adds to the expense of establishing the turf. Clovers also minimize a good solid footing especially when wet, and attract bees.

ESTABLISHING THE TURF

Turf may be established by seed, sprigs, plugs or sod. Each has its advantages and disadvantages. Seed is the cheapest method, followed by sprigs, plugs and then sod, which is the most expensive.

Seed

Most athletic fields are established by seeding; therefore, it is most important that an even distribution be obtained. Divide the seed into two equal parts, sowing one half when traveling in an east-west direction and the second half when traveling north-south. A seeder is recommended for good even distribution.

Once the seed has been planted, it should be kept moist at all times to hasten germination. If water is not a major problem, keep the area damp by watering it three times a day. If water is a major consideration, a mulch of straw may be used. Cover only 1/4 to 1/2 the area with the straw (1 1/4 to 2 tons per acre). If the field is covered too heavily, seed germination is delayed and chances for the development of disease is increased. Machines are available for spreading the straw but are expensive and of unproven value.

The best time of year to seed cool season grasses is in August and September. (Bermudagrass should be seeded in the spring.) This allows sufficient time for the seed to germinate and become established before cold weather sets in. Early spring is the second best time and summer the least desirable for cool season grasses. If seed are sown in the summer, soak them overnight in water. Drain off excess water and mix the seed with sand at a rate of 1 part seed by volume to 10 parts sand by volume. The seeding must then be done by hand. Do not let the seed become dry but keep it constantly moist.

Sprigs and Plugs

Establishing grass through the use of sprigs or plugs produces a turf much faster than seeding. This method however, is limited to grasses that spread by stolons and creeping stems. The sod is shredded and spread over the area and covered with one fourth inch of topdressing and then watered well. Five to 10 bushels of sprigs are required per 1000 sq. ft. If sprigs are planted in rows, one bushel will cover approximately 600 linear feet, with row spacings of 12 to 24 inches.

Grass plugs are pieces of sod averaging about 2 square inches. A special planting tool which makes the task easier and faster, is similar to a bulb planter or cup setter for golf greens. It removes a plug of soil into which the grass plug is inserted, firmed to make contact with the soil and then watered. For quicker coverage, plugs are placed much closer together than sprigs (about 6" to 9" apart). This is especially true of zoysia used because of its slow rate of growth and the short growing season here in West Virginia.

Sod

Construction of athletic fields often cannot be done until spring or even summer. If this is the case, sodding is the best method for establishing turf. True, it is more expensive but the field will be ready for use within four to six weeks, compared to seeded fields, which should not be used for the first year.