

## SOIL PREPARATION AND SODDING

The Cooperative Extension Service of the University of Maryland and Virginia Polytechnic Institute has published guideline specifications for soil preparation and sodding applicable to most installations in the Maryland-Virginia-District of Columbia region.

### SUBSOIL PREPARATION

Where additional topsoil is to be deposited over existing soil, prepare the subgrade in the following manner:

Establish and maintain required subgrades. In establishing rough grades, compensate for thickness of additional topsoil or sod, if applicable.

Spread ground limestone over subsoil which is either highly acid or composed of heavy clays. Spread at the rate of 100 pounds per 1,000 square feet.

50 pounds of burnt lime or 75 pounds of hydrated lime may be substituted for 100 pounds of ground limestone.

Liming materials should contain at least 50% of a combination of calcium oxide and magnesium oxide and 50% of the liming material must pass through a 100 mesh sieve with 98% to 100% passing through a 20 mesh sieve.

Before applying topsoil, distribute lime uniformly over the subgrade and work into the soil by disking or scarifying to a depth of at least 2 inches to loosen the subgrade and permit bonding of the topsoil to the subsoil.

### TOPSOIL MATERIAL AND APPLICATION

Topsoil should consist of sandy loam, clay loam, silt loam, or sandy clay loam without stones, lumps of soil, roots, weeds, plant material or other foreign matter.

Have topsoil laboratory tested for pH and soluble salts. A pH between 4.5 and 7.5 is required with soluble salts no higher than 500 parts per million.

Do not place any material over areas treated with soil sterilants until sufficient time has elapsed to permit dissipation of toxic materials.

Uniformly distribute topsoil to a depth of 3 inches minimum after firming. Correct all grading irregularities to prevent the formation of depressions or water pockets. Do not place topsoil while either the topsoil or subgrade are frozen or excessively wet.

### FINAL SOIL PREPARATION

Use soil tests to determine the application rate of fertilizer. Fertilizer materials which supply 2-1/2 pounds actual N per 1,000 square feet, 2-1/2 pounds actual P<sub>2</sub>O<sub>5</sub> per 1,000 square feet, and 2-1/2 pounds actual K<sub>2</sub>O per 1,000 square feet may be applied when complete soil tests are not available.

Application rates for liming materials should be determined by soil tests. When complete soil tests are not available, uniformly distribute 50 pounds of ground limestone, or equivalent, per 1,000 square feet.

Uniformly mix lime and fertilizer into the top 4 inches of soil by disking or harrowing.

Prior to sodding, clear the surface of all debris, foreign matter and stones larger than 1-1/2 inches in diameter.

#### SOD MATERIALS

"Certified" sod is grown from "Certified" seed. It is inspected by the State Certifying Agency to insure genetic purity, overall high quality and freedom from noxious weeds, as well as excessive amounts of other crop and weed plants at the time of harvest. It may be composed of two or more varieties or species. The sod must meet published State standards and bear an official "Certified Sod" label on the bill of lading.

"Approved" sod is inspected and approved by the State Certifying Agency to insure overall high quality and freedom from noxious weeds and excessive amounts of other crop and weed plants at the time of harvest. It may be composed of a mixture of two or more varieties or species. The sod must meet published State standards and bear an official "Approved Sod" label on the bill of lading.

The following mixtures of species and varieties are eligible for the State "Certified" and State "Approved" classes of sod in Maryland and Virginia.

For Sunny Turf Areas - Kentucky Bluegrasses: 30-65% Merion; 30-65% Kenblue or South Dakota Certified; 0-35% Fylking, Pennstar or Windsor.

For General Purpose Turf Areas - Kentucky Bluegrasses: 15-40% Merion; 15-40% Kenblue or South Dakota Certified; 0-35% Fylking, Pennstar or Windsor. Creeping Red Fescue: 20-50% Pennlawn or Illahea.

For Multi-Use Turf Areas (Athletic Fields, Lawns, Parks, Playgrounds) - Tall Fescue: 80-100% Kentucky 31. Kentucky Bluegrasses: 0-20% Merion, Fylking, Kenblue, Pennstar, South Dakota Certified or Windsor. When Kentucky Bluegrasses are included in this mixture, Merion should comprise half of the bluegrass portion.

For Turf Areas Used Primarily In Summer (Southeastern Maryland and Virginia): Bermuda-grasses or Zoysias.

Machine cut sod at a uniform soil thickness of 3/4-inch, plus or minus 1/4-inch, at the time of cutting.

Individual pieces of sod are cut to the supplier's standard width and length with a maximum allowable deviation of 5%.

Sod should be harvested, delivered and installed within a period of 36 hours. Sod not transplanted within this period should be inspected and approved by the inspecting officer or his representative prior to its installation.