

# University of Kentucky—College of Agriculture

## EXTENSION DIVISION

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### THE LAWN

By N. R. ELLIOTT

A good lawn, well kept, is indispensable to attractive home surroundings. If the lawn is rough, spotted, weedy and poorly kept the home will never appear attractive, regardless of the amount of money expended in the planting of trees and shrubs. A fine lawn enhances the beauty of the whole landscape and partly makes up for a lack of shrubs and trees. In fact, the home should represent a picture with the lawn as background, and the plantings the frame. The lawn is such a large part of the picture, that it should be kept in perfect condition.

The making and maintaining of a good lawn requires much work. Difficulties will be encountered, such as weeds, grass dying in spots, trees taking too much moisture and plant food as well as injuring the grass by shading. These and other problems must be dealt with if one is to have the type of lawn so much desired. On account of the hot, frequently dry summers, and open, snowless winters in Kentucky the maintenance of a good lawn is more difficult than in some other sections of the United States. However, in spite of these conditions it is possible, in most sections of Kentucky, to have a good-looking lawn.

#### MAKING A NEW LAWN

In making a lawn on a new area one should first provide good drainage. Wet soil may be caused by a subsoil that does not drain well, or by surface water from the sur-

rounding area. Tile drainage may be necessary, or the grade may be changed to correct surface drainage.

The next step is the actual preparation of the soil. Deep, fertile, moisture-holding soil is needed. Cover the entire area with a heavy application of well-rotted barnyard manure, and plow to a depth of eight inches. Harrow the plowed surface until it is reasonably smooth. Apply 1,000 pounds of superphosphate, 1,000 pounds of hydrated lime, and 500 pounds of muriate of potash, to the acre. Disk and harrow the ground until these are thoroly incorporated in the soil. This application will supply the phosphorus and potash needed for many years. It is much more effective to supply these in quantity before the lawn is established than to add them after the area is covered with sod. Top-dress the soil with another application of well-rotted manure, preferably cow manure. After this a good seed-bed should be prepared by thoro harrowing and rolling. Keep in mind that the seed-bed is being prepared to last a long time, therefore the preparation should be thoro before any grass seed is sown. The spring or fall is the time to make these preparations.

#### KIND OF GRASS FOR THE LAWN

*Kentucky Bluegrass* (*Poa pratensis*). This is the most important grass for Kentucky lawns. It has a good, deep color, is spreading and permanent, has fine blades and tends to crowd out many other grasses when grown under favorable conditions. It takes two or three years to spread sufficiently to make a good, close turf. On account of this it is often desirable to sow a rapid-growing grass with the Bluegrass to cover the ground and check weed growth. Redtop is recommended for this purpose.

*Redtop* (*Agrostis palustris*). Tho it belongs to a different group from Bluegrass, Redtop is used with Bluegrass because it blends well and is rapid-growing. It is adapted to a wide range of soil conditions and like the other bent grasses develops quickly and is at its best during late summer and fall.

*White Clover* (*Trifolium repens*). White clover is

used often with grass mixtures. Some like it, others do not, so its use becomes a matter of choice. White clover makes most of its growth below the two-inch level, which is about the level grass is mowed. It is an aid to making a carpet-like, sweet-scented turf. In using white clover on the lawn the seed should be sown only in the spring. It should not be sown in mixture because the clover seeds are so heavy and smooth that it is difficult to get an even distribution when sown in mixtures of Bluegrass and Redtop.

*The Fescues (Festuca).* This group of grasses is of less importance for lawns than any of those previously mentioned. The fescues are used in many lawn seed mixtures because they give a quick effect the first year. They have some use in places that are partially shaded. However, the hot, dry summers of Kentucky cause them to turn brown; therefore they are not recommended.

*Bermuda Grass (Cynodon dactylon).* Bermuda is the creeping bent grass of the south, producing a quick, dense turf. There are parts of Kentucky where Bluegrass does not do well. For such regions Bermuda makes a good substitute. The brown color of Bermuda during the winter makes it less desirable than Bluegrass; however, it does produce a desirable, carpet-like turf. It is recommended only when Bluegrass fails.

It is difficult to recommend a grass for shady places. Different degrees of shade must be taken into consideration. A place may be somewhat shaded and still be suitable for growing grass, or the shade may be so dense that no grass could be made to grow. The variety of trees producing the shade is a determining factor. Water maple, or soft maple, trees make conditions very unfavorable for grass.

*Rough Bluegrass or Meadow Grass (Poa trivialis).* This is commonly called bird-grass. It thrives best in damp, shady places and is used often in grass mixtures for shady places. In the open it is injured by the sun, but its low-growing stems and bright green leaves make it useful in places where soil and shade are unsatisfactory for

other grasses. Probably meadow grass is the best grass for shady locations.

*Wood Bluegrass* (*Poa nemoralis*). This flat, low-growing, non-creeping grass is added sometimes to grass mixtures for shady locations. It is not used so much as Meadow Grass.

Regardless of the kind of grass seed to be used, one thing should always be kept in mind—buy the best seed obtainable. Good seed is by far the cheapest.

*Seeding.* The seed may be sown in the spring during February, March and April, or in the fall during September and October. When the ground is prepared for spring sowing it should be seeded as soon as possible. Early seeding enables the young grass to make vigorous growth before the extreme heat of midsummer. The fall is an ideal time for seeding in Kentucky. The cool weather and fall rains are excellent for starting grass seed, especially Bluegrass. In Kentucky the lawn grass seed usually is sown in the spring. Probably better results would be had by fall sowing. If the young grass is killed during the winter, reseeding should be done in February or March.

The seed may be broadcasted by hand or, if a large area is to be sown, a small seed sower may be used. Divide the seed into two equal parts, sowing one part in one direction, and the other at right angles. This gives an even distribution of seed. As seed is light in weight, select a time when there is little or no wind.

*Seed Mixture.* A mixture of Kentucky Bluegrass and Redtop, is recommended for Kentucky lawns.

Kentucky Bluegrass	....4 parts by weight,
Redtop	.....1 part by weight.

If Meadow Grass or Wood Bluegrass is to be used for shady places, add one part by weight of this mixture.

*Amount of Seed to Sow.* The grass-seed mixture should be sown at the rate of 45 to 60 pounds per acre. For small areas sow three-fourths of a pound, or one quart, of seed to 200 square feet, or a square 14.2 feet on a side. The

white clover should be sown at the rate of four pounds per acre, or three ounces to 200 square feet.

After the seed is sown rake it in very lightly using a garden rake. Then press it into the soil with a roller weighing at least 250 pounds. If a roller is not available use a tamper made by placing an upright handle in the center of a piece of two-inch plank about 10 by 18 inches. Go over the area at least twice with roller or tamper.

*Nurse Crops.* If the area to be seeded is sloping it may be advisable to use a nurse crop to prevent washing. Oats, rye and barley are used for the nurse or protection crop for the young grass. A very light seeding of any of these may be made at the time of sowing the grass seed. When the area is comparatively level the grass mixture should be sown alone and the redtop, which germinates readily, will furnish shade for the young Bluegrass. When nurse crops are sown use care in cutting them, especially when grass mixture has been sown in the spring. If nurse crops are allowed to grow and furnish shade, when cut and removed, the hot summer sun often does much damage to the young grass.

*Sodding.* Prepare the soil for sodding the same as for seeding. Use care in procuring sod, making sure it does not contain undesirable grasses and weeds. After the ground has been prepared the sod should be cut in strips about three feet long, one foot wide, and at least two inches thick. Roll the strips before transporting to the lawn. Lay these strips of sod as soon after cutting as possible. Fit the edges together closely, and beat the sod down with a tamper or the back of a spade. Do this as the strips are put down. As soon as a section is finished it should be rolled or again beat down. Follow this with watering, thoroly soaking the sod until it is wet thru. As soon as dry, roll or beat down again. Do not allow it to suffer for lack of water.

Sodding is more expensive than seeding, but in some cases it may be desirable. For example, on terraces or banks; also it is possible to do sodding in the middle of the

summer when it would not be feasible to sow seed. Sodding may be used to advantage to cover bare spots.

*Care of the New Lawn.* After the lawn has been seeded or sodded it needs care and attention. The soil must be fed, the surface rolled, the weeds kept out, and the grass kept clipped.

*Fertilizing.* If the soil has been prepared and fertilized as directed on page 2 the application of nitrogen will be the principal fertilizer needed. There are a number of fertilizers that may be used to supply this nitrogen. Well-rotted cow manure applied in December is excellent. Tobacco stalks placed on the lawn late in December or early in January and left there until March furnish a liberal amount of nitrogen in a form readily available for the grass. Sulfate of ammonia or nitrate of soda may be applied in the early fall or late winter, at the rate of 150 pounds per acre, or one pound per square rod. Select a time just before a rain to apply sulfate of ammonia or nitrate of soda, as its use in dry weather may injure some of the grass by burning. Sulfate of ammonia or nitrate of soda may be mixed with sand or dry soil to prevent burning and to assure an even distribution. Mix one pound with one gallon of sand or dry soil. Another application may be given in June, if the grass fails to make a rapid growth. Use care in applying this in order to prevent burning.

*Rolling.* The lawn should be rolled several times each year. This applies to both new and old established lawns. Begin in the spring as soon as the ground is dry enough so that the roller will not sink, and repeat frequently until the middle of summer. Use a hand roller weighing at least 250 pounds. Large areas may be rolled with a farm roller.

*Weeds.* Keep the weeds out of the new lawn. This may require hand weeding, but it pays. Cut weeds before they produce seed. Dandelion, narrow-leaf and broad-leaf plantain, dock and crabgrass are troublesome. These and other weeds may appear in the new lawn, but they should all be held in check to prevent their interfering with the

growth of the young grass. Frequent clipping of the grass helps to control weeds. When weeds are dug or pulled it is a good practice to sprinkle a little grass seed where the weed was removed. If this is done the weeds gradually disappear. The lawn is liable to be reseeded to weeds from the adjoining area, if close clipping and constant weeding are not employed.

*Clipping the Grass.* It is best to allow the young Bluegrass to become four or five inches high before it is cut the first time. Use a sharp sickle or scythe for the first cutting or set the lawn mower to cut the grass stems at a height of at least two and one-half inches. Keep the grass clipped, because repeated cutting encourages the spreading of the roots and hastens the formation of a good turf. The frequency of mowing will depend upon the rate of growth of the grass. In seasons when the grass is making rapid growth, once a week is not too often. During dry, hot weather, cut the lawn less frequently and leave the grass blades a little longer, two and a half or three inches. Unless the grass is wet and so long that the clippings collect in bunches they are best left on the lawn. The clippings act as a mulch and conserve moisture. If the season causes an unusual growth it may be necessary to rake and remove the clippings. This raking should be done lightly so as not to injure the young grass.

#### CARE OF THE OLD LAWN

There are many old lawns that have deteriorated to such an extent that it is almost impossible to renew them. In many if not most instances the poor condition of the lawn is due to a deficiency of plant nutrients. In lawns like these the easiest method is to treat the area as a new lawn and follow instructions given in the preceding pages.

Some old lawns have good Bluegrass sod that has been neglected. Fertilizing, rolling, reseeding and regular clipping will improve the turf on these lawns. Weeds and undesirable grasses should be dug up and destroyed, fresh soil added and the place reseeded or sodded.

Fertilize the area by using well-rotted manure, pref-

erably cow manure, applied in the fall. Tobacco stalks may be applied in the winter and left on the ground until early March. Sulfate of ammonia or nitrate of soda may be used. Follow the directions for applying as given in the preceding pages.

Sow Bluegrass either in the early spring or early fall, using six pounds per acre. For smaller areas sow one pound of Bluegrass on a lot 80 by 100 feet. This amount of seed should be sown every year until the sod is completely established. If it is desired to add white clover, sow three pounds per acre, the last of March.

If the old lawn has not been rolled, more than likely the surface will be uneven. It may be necessary to fill some of the depressions with soil. These areas should be given a heavy application of seed or be sodded. Roll the surface several times each year, using a roller weighing at least 250 pounds.

Dead grass should be completely removed. Make the first clipping early in the spring, leaving the stems three or four inches long. The length of the stems should be gradually reduced by repeated clippings until they are about two inches in length.

**CAUTION.** Do not clip the lawn in mid-summer if it has not been clipped regularly. Mid-summer cutting of a once neglected lawn often exposes the crowns of the grass plants to the killing rays of the sun.

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