PLANTING and CARE of LAWNS

A 4-H CLUB MANUAL

Circular 545

EXTENSION SERVICE - - *SHAWNEE BROWN, Director*

Oklahoma A & M College Stillwater, Oklahoma

Soil Improvement

Most any soil needs some improvement to grow a good lawn. Organic matter (humus) is needed to help the soil take in and hold more water, to permit the soil to "breathe" better, and permit the growing roots to move more easily through the soil. Organic matter can be had by applying such materials as well rotted manure, rotted cotton burrs, rotted corn-cobs, peat moss or similar material. Such materials added and turned into the soil at the rate of about a pound to the square foot, and mixed with an inch of sand, would do a lot to improve the lawn soil. For new home grounds, or when remodelling is done, haul such building waste as plaster, lumber scraps, away rather than mix it in the soil.

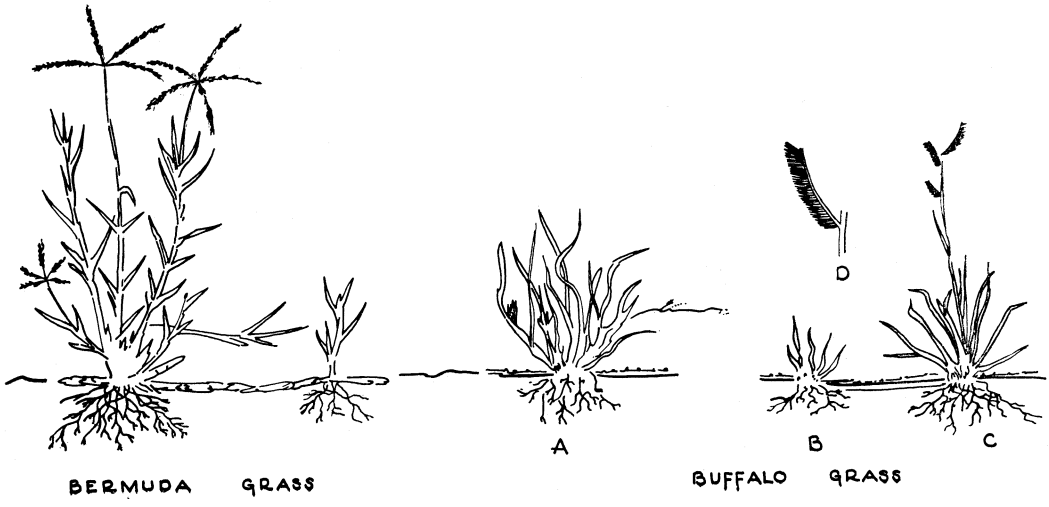
Chemical fertilizers help to increase healthy, vigorous growth. After the organic matter and sand is thoroughly worked into the soil, mix 4-12-4 or 5-10-5 at the rate of 2 lbs. per 100 sq. feet in the top three or four inches of soil. A soil test, however, is the best means of deciding just what is needed to help the soil to grow a better lawn. Phosphate and lime might be needed in addition to the complete fertilizer. Prepare the soil and let it settle three or four weeks before sodding or seeding the lawn grass.

After the soil has had time to settle, be sure that it slopes slightly away from the house for drainage. Remove rocks, pieces of boards, and similar materials from the surface, so they will not make the job of mowing more difficult.

Suggested Lawn Grasses for general Oklahoma conditions are:

BERMUDA GRASS which can be started by seeding or sodding. Broadcast the seed evenly over the area at the rate of three pounds per 1000 sq. ft. A lawn can be had faster by sprigging or sodding runners from the plants. Sod in rows about 18 inches apart and space in the rows 12 to 15 inches apart. Bermuda grass is about the only choice for sandy soils. African Ber-

Figure 1. Two common lawn grasses: Buffalo Grass and Bermuda Grass.
- **A. Female buffalo grass clump**
- **B. New plant starting from a runner**
- **C. Male buffalo grass plant**
- **D. Flower spike of male buffalo grass**



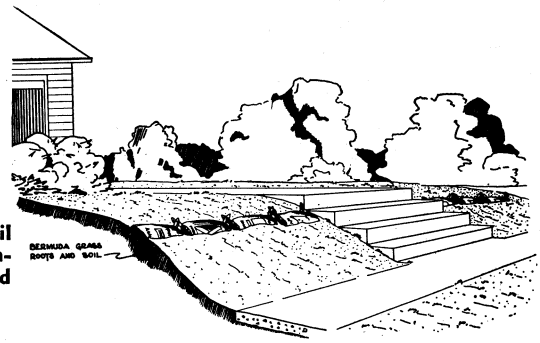


Figure 3. Burlap sacks filled with good soil and bermuda grass roots afford an inexpensive means of getting sod started on a slope.

Areas heavily shaded by trees are difficult to establish in lawn grass. Sometimes better success can be had by starting a ground cover plant such as English Ivy, Vinca, or Creeping Mahonia.

Reworking a Lawn. If a lawn area has a poor stand of grass, poor soil, and the need for levelling and drainage improvement—then the best treatment would be the same as for starting a new lawn.

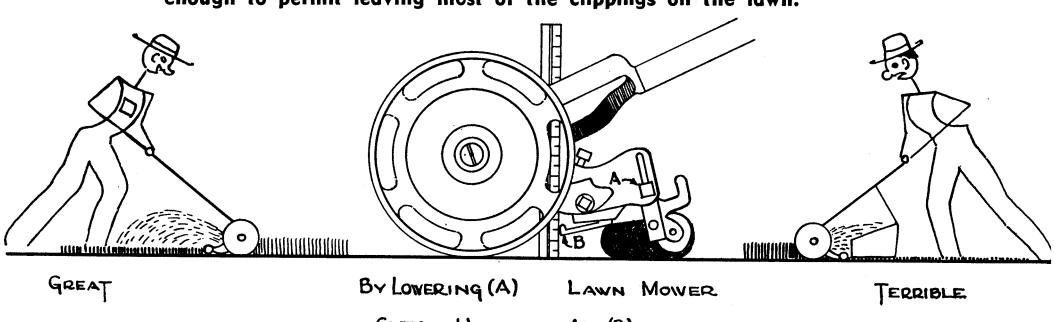
If there is a fairly good stand of grass, a surface covering of about one inch of fine, well rotted manure is very helpful. If weed-free manure cannot be had, compost, ground corn cobs, cotton burrs, peat moss, fine peanut hulls, or similar materials may be used. Low places can be built up by gradually adding good top soil and well rotted manure. The grass, especially Bermuda, will grow up through the soil. Thin or barren spots should be resodded or seeded.

Slopes are sometimes difficult to get covered with lawn grasses. Steep slopes, especially in the shade, might require the construction of a retaining wall. A less expensive treatment for a slope in a sunny location can be had by using burlap sacks, fertile soil and Bermuda grass runners. Fill the sacks about three-fourths full of good soil and grass runners or stolons. Lay the rows of the filled sacks on the contour with the slope to give a terraced effect. After the sacks rot away, the grass terrace should be well rooted to spread over the area. The treatment is most effective if carried out in late August to early September or during the spring, just before growth begins. Water soak the filled sacks to prevent drying before growth can start. A covering of coarse hay, corn stalks, or similar material can be used to help hold slopes.

Care of Lawns.

MOWING REGULARLY is important for the health of the grass as well as for appearance. Cut the grass at least once a week. Set the mower to cut the grass not shorter than an inch and a half to two inches. Permit

Figure 4. Set the lawn mower to cut grass 1½ to 2 inches high. Mow often enough to permit leaving most of the clippings on the lawn.



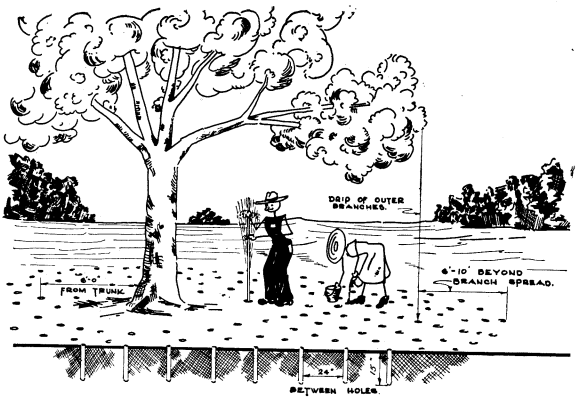


Figure 7. Deep fertilizer applications encourage deeper feeding tree roots and less lawn competition. Fill the holes loosely with top soil and soak the soil with water after applying fertilizer.

amounts for each section. Otherwise, part of the lawn might be heavily fertilized while another part receives none. To help prevent damage to the grass blades from burning, water chemicals in immediately after application.

Large trees compete with lawn grasses for moisture and food. To encourage deeper tree root growth and less competition for the lawn, supply chemical fertilizers for the tree roots. With a crow-bar or similar tool make holes about a foot deep. Make the holes in a band, beginning four or five feet from the trunk and five to ten feet beyond the spread of the branches. Space the holes about three feet apart and pour about half a cup of complete fertilizer, such as 5-10-5, in each hole. Refill the holes with soil and soak with water. The planting of deep rooted trees such as Pecan, Ash, and Thornless Honeylocust helps reduce the competition between lawn and tree roots.

Heavy layers of fallen leaves should not be permitted to remain on the lawn during the fall and winter. Dead spots from smothering can result. Do not burn the leaves, but rake with a leaf rake and add them to a compost pile for later soil improvement.

COMPOST is simply plant remains mixed with soil and encouraged to decompose or rot. Waste plant materials, such as dry grass clippings, leaves, weeds, vegetable trimmings, ground corn cobs, cotton burrs, old hay or straw, or other materials can be made into valuable soil conditioner by composting. Even much of the waste from the kitchen can be added, but do not add materials containing a lot of grease or salt. Properly composted material is an excellent substitute for barnyard manure on lawns, flower beds, shrubs, and the vegetable garden.

The compost heap is made by putting a layer of waste plant materials six to eight inches deep on the ground, placing over it one or two inches of animal manure (poultry manure is especially good), and then scattering a like layer of rich soil. A pound or two of complete fertilizer (4-12-4) per layer, depending on the size of the heap, will speed up the decomposition. Add layers until the heap is about four feet high. Keep the top slightly saucer-shaped, and the sides nearly straight up and down. The plant materials and manure should be moistened thoroughly as the heap is built

Figure 8. Rake the leaves off the lawn and add them to a compost pile. A regular leaf rake does a better job and less damage to the lawn than a garden rake.

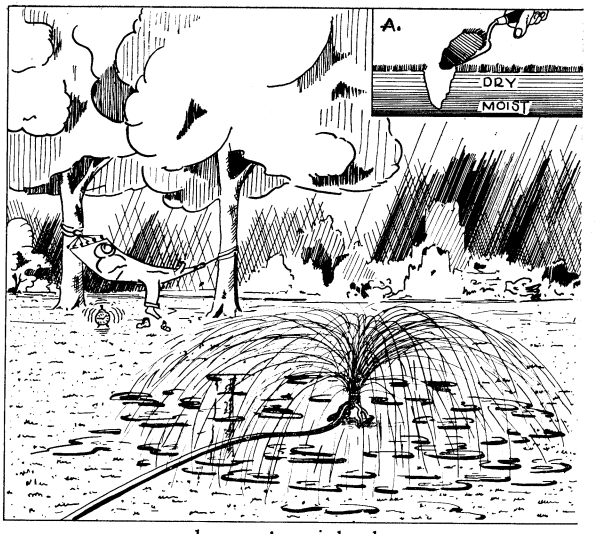


Figure 5. If the lawn needs water, soak the ground to a depth of three or four inches with a fine mist spray. Frequent light sprinklings usually do more harm than good.

A. To test for the need of watering, remove a plug of soil. Water when the soil shows dry at a depth greater than the depth of the grass roots.

most of the clippings to return to the soil. If the grass stand is extremely heavy it might be necessary to remove the clippings occasionally.

Scattered shrubs, flower beds, and other plantings over the lawn make it less attractive and more difficult to care for. Plantings should be in groupings along the foundation of the house or in the borders.

WATER THE LAWN thoroughly when watering is needed. Water sprinklers or soakers should be left in place at least two or three hours or until the added moisture soaks down to the soil moisture. Light sprinkling encourages the grass roots to move close to the soil surface where they are more easily damaged by heat, drying, and freezing.

WEEDS and crab grass can be best controlled by maintaining a healthy, thick stand of lawn grass. Commercial weed killer compounds can be used to kill many of the broad leafed weeds such as dandelion and chickweed. Valuable flowers, shrubs and trees can be damaged if the material is used carelessly or if the weed killer material is not completely cleaned out of the sprayer before spraying other plants.

FERTILIZING should be a regular part of the lawn care. Have a soil test made at your County Agent's office before trying to decide what kind and how much fertilizer to apply. Nitrogen is usually the most needed food for lawn grasses.

A good nitrogen fertilizer combination is one part ammonium sulphate or sodium nitrate and three parts cottonseed meal. If cottonseed meal is not available, sewage sludge may be used instead. Apply the mixture at the rate of 10 to 12 pounds per 1000 square feet in the fall. If grass clippings are left on the lawn, organic materials are not so much in need and chemical fertilizers such as 5-10-5 may be applied at the rate of three to four pounds per 1000 square feet in late March or early April. To get a fairly even application, mark the area off in sections and divide the fertilizer into

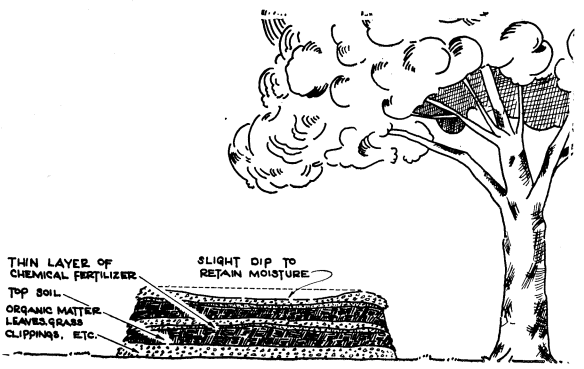


Figure 6. A compost pile provides humus for soil improvement and a means of disposing of grass clippings, leaves, and other waste.

muda grass has a finer texture than ordinary Bermuda, but requires more careful grading for mowing, and needs more water for the best results. Sodding is preferred in the north section of the state to help prevent winter damage.

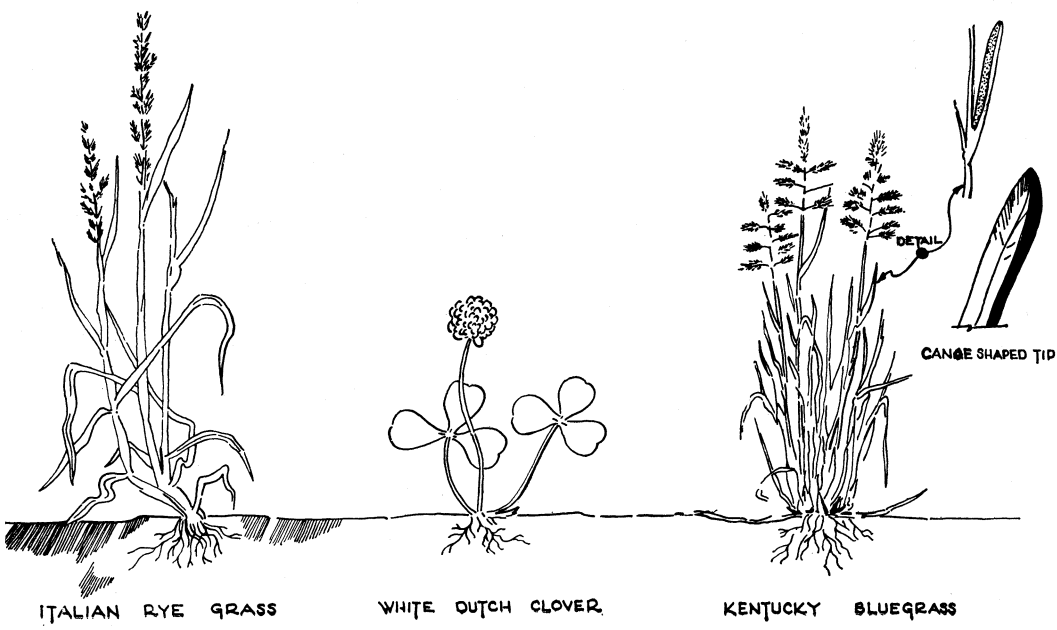
BUFFALO GRASS is a native pasture grass which makes a nice lawn for clay soils of the central and western part of the state, but is not adapted for very sandy soils. Better success can be had by starting from sod rather than seed. Space clumps of sod about a foot apart. Buffalo grass usually does not have to be mowed as often as Bermuda. Its growth habit causes less trouble from growing into flower and shrub beds. Male plants have tall flower stalks which are unsightly. Select female plants for sodding.

KENTUCKY BLUE GRASS does fairly well in the shade, but unless a lot of water is applied, it is not too well adapted for general growing conditions in Oklahoma. The great amount of care necessary for a good grass coverage is discouraging for average home grounds conditions.

WHITE DUTCH CLOVER is fairly successful as a shaded lawn cover, and can also be used to good advantage when mixed with other lawn grasses. Sow the seed in the fall or early spring at the rate of 1 lb. to 1000 sq. ft. Allow some of the plants to reseed each year, or it is necessary to sow seeds every three years.

ITALIAN RYE GRASS seed planted in late September or early October will provide a green winter lawn until it dies out in May or early June. Sow the seed in lawn grass at the rate of 1 lb. to 1000 sq. ft. and settle in with water. Probably the best use for rye grass, however, is to help hold the soil until a permanent lawn can be established.

Figure 2.



Planting and Care of Lawns

A 4-H CLUB MANUAL

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In Charge of Landscaping

PURPOSE OF THE PROJECT:

1. To help 4-H Club boys and girls to realize the added usefulness and attractiveness of a good lawn to the home grounds surroundings.
2. To encourage boys and girls to help improve and care for the home grounds lawn.

PROJECT REQUIREMENTS:

1. Enroll in the 4-H Club Lawn Project.
2. Read bulletins, books, and magazines on the planting and care of lawns.
3. Start a compost pile.
4. Keep a record of lawn improvement activities, including such items as: Kind of grass used for lawn; percent of lawn sodded at the beginning and end of the year; fertilizers and humus added; times and method of mowing; shrub beds correctly edged; weeds killed and methods used to kill them; and other lawn improvement activities.

SUGGESTED EXHIBITS FOR FAIRS AND OTHER PUBLIC DISPLAYS:

1. Collect, press, and mount on an 18″ x 24″ white sheet of cardboard or poster paper four lawn grasses and ground covers or five weed and grass pests.
   Show both the top growth and part of the root system.
2. Before and after pictures of lawn improvements and activities.

THE LAWN:

The lawn is the most important part of the home grounds surroundings. An open lawn area not only improves the appearance of the surroundings, but serves many other purposes. It helps prevent wind and water erosion; helps prevent dust and mud, and adds to the cool comfort of the home and grounds. In spite of its possible usefulness and attractiveness, the lawn is usually given less needed care than any other part of the grounds.

Either for a new lawn or for reworking an old lawn, the four most important points are: good soil, good drainage, adapted lawn grasses, and good lawn care.

up. The top of the completed pile should be covered with a layer of straw, leaves, grass clippings, or other materials to keep it from drying rapidly.

The width of the pile should be at least six feet. The length can be made to suit the amount of waste plant material to be composted. Turn the heap, by spading, after about four weeks, placing the materials that were on the outside of the old pile on the inside of the new one. It is helpful to add more water as the materials are being turned. A moldy appearance of the plant material in the pile indicates it has not been kept moist enough.

Turn the heap again five or six weeks after the first turning. After four to eight months the material should be well rotted and ready for use.

ANTS are among the most common lawn pests. Carbon bisulphide, commonly called "highlife," is a fairly dependable ant killer. Use about half a teacupful of the material to each big ant den, and treat all openings. Cover and pack the treated den with three or four shovelsful of moist soil. Treat when most of the ants are in the den. If ants show up at any of the hills, continue treatments until they are completely killed out.

There are many commercial ant-killing preparations on the market; follow the manufacturers' directions carefully if the materials are used.

MOLES AND GOPHERS are quite often serious lawn pests; ask the county agent or home demonstration agent for a leaflet on their control.

Edging. Correct edging in heavy soils, along with an occasional clipping back of grass runners, will keep the creeping grass under control. For sandy soils, concrete or metal curbing is the best method for keeping grass out of plant beds. Sink the curbing to a depth of 15 to 18 inches; make the height the same as the grass is to be cut, so the wheel of the lawn mower runs on the curb for mowing. The shape of curbing should follow the natural curve of the shrub bed instead of having straight lines and square corners. Grass killing chemicals may be used to clear beds before plantings are made. Use materials which kill the soil for only a few weeks rather than several years.

SOME SUGGESTIONS FOR DEMONSTRATIONS AND DISCUSSION:

1. How to sod or seed a lawn. Soil preparation, watering, etc.
2. How to make a compost heap.
3. The edging of a flower or shrub bed.
4. Mowing the lawn. Height to set the lawn mower, etc.
5. Lawn weed control.
6. Lawn grasses and their use.
7. Fertilizing the lawn.
8. Seeding or sodding a slope.

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