

Connecticut Agricultural Experiment Station New Haven

Lawn Seeding and Care

A smooth, green lawn is desired by all men and women who own or care for a home. Often they come to the Station for help in improving lawns and building new ones. Recent summers have been unusually dry, and lawns have been damaged seriously, particularly those not well fertilized and watered. Added to this is the problem of protection against the Japanese and Asiatic beetles and other insects, and against plant diseases, such as the newly discovered fungus that has caused considerable injury in recent years.

To provide in concise form the best information available, the Station has prepared the following instructions on fertilization and seeding of lawns, and the control of insects and plant diseases. A more complete discussion of fertilizers for lawns will be found in Station Circular No. 77, Lawn Fertilization.

NEW LAWNS

Time of Seeding

Early fall is the best time to seed, usually September 1-15. At this time weeds offer less competition and the sod may be more resistant to disease attacks by the following season.

Spring seeding is most often practiced. The ground should be worked as early as possible, and not later than May 1.

Organic Matter Supplements

For soil deficient in humus or excessively sandy, use one of the following, well worked in:

Well rotted stable manure.....	1 cu. yd. to	2000 sq. ft. of lawn
Dried peat moss	1 bale to	300 sq. ft. " "
Muck	1 cu. yd. to	1000 sq. ft. " "
Pulverized cow manure	100 lbs. to	1000 sq. ft. " "

Fertilizers

If manure has been used add 30 pounds of bone meal per 1000 square feet. In all other cases apply 30 pounds of 5-8-7, or a similar garden fertilizer, per 1000 square feet.

Lime. On strongly acid soils where bluegrass is desired, use 75 pounds hydrated lime or 100 pounds ground limestone per 1000 square feet, well worked into the soil.

Seed Bed

The ground should be carefully prepared, and rolled thoroughly before the seed is sown. The seed should be lightly covered by scratching with an iron rake or by sifting loam over it.

Seed Mixtures

Use 4 pounds per 1000 square feet of one of the following seed mixtures:

On strongly acid soils and where fine leaved grasses are especially preferred:

South German or Colonial bent.....	40 per cent
Bluegrass	25 per cent
Red top	20 per cent
Italian rye grass	15 per cent

On average soils, for general purposes:

Bluegrass	40 per cent
South German or Colonial bent.....	25 per cent
Red top	20 per cent
Italian rye grass	15 per cent

On very sandy soils and where a fescue lawn is preferred:

Red top	40 per cent
Red or Chewing's fescue	60 per cent

On heavily shaded lawns:

Rough stalked meadow grass	40 per cent
Red or Chewing's fescue	30 per cent
Kentucky or Canada bluegrass	20 per cent
Red top	10 per cent

If white clover is desired, add 3 or 4 ounces per 1000 square feet to above mixtures.

Mowing

New seedings should be mowed for the first time when all the grass is high enough to be cut with a medium set mower. Clippings should not be removed unless the grass is unusually tall before mowing.

CARE OF ESTABLISHED LAWNS

Fertilization

Most lawns that are unsatisfactory to the owners are starved for plant food. Generally speaking, fertilizer is more important than seed in maintaining a lawn. The best seed will not make a lawn on poor soil.

In early spring just before growth starts, apply one of the following fertilizers, which illustrate the types of lawn fertilizers available on the market.

12-4-4	10 lbs. per 1000 sq. ft.
8-6-6	15 lbs. per 1000 sq. ft.
4-12-4.....	25 lbs. per 1000 sq. ft.

Or apply a home mixture of:

Sulfate of ammonia	4 lbs. per 1000 sq. ft.
Superphosphate	4 lbs. per 1000 sq. ft.
Muriate of potash	2 lbs. per 1000 sq. ft.

At intervals during the summer, when condition of the lawn indicates lack of nitrogen by a pale green color, apply one of the following:

12-4-4	4 lbs. per 1000 sq. ft.
Sulfate of ammonia	1½ lbs. per 1000 sq. ft.

Sulfate of ammonia should be mixed with sand or loam and spread evenly over the grass or dissolved in water and applied with a watering pot. When this or any other mineral fertilizers are applied during the growing season, injury to the grass may result unless they are washed into the soil. Apply just before a rain or water well with a hose.

Diseases

Brown spot. This disease occurs most frequently on newly seeded lawns in damp weather and on golf greens where heavy fertilization and frequent waterings have developed a luxuriant growth. It is characterized by the development of the fungus as a white, mold-like growth on the ground which rots the base of the grass stems in a definite, roundish, brown spot. Spraying with Bordeaux mixture or commercial forms of organic mercury compounds will probably prevent or lessen the injury if started in time.

Lawn rot. This trouble has appeared in recent years on lawns and golf courses, where it has caused more serious injury than the brown spot. It is especially serious on bent grasses or where mixtures of these are used with other species. This disease develops in periods of warm, humid weather and is characterized by a sudden rotting of the grass in irregular spots scattered over the lawn. These spots have a characteristic water-soaked appearance quite unlike the brown spot. Frequent spraying with Bordeaux mixture wherever weather conditions favor the disease will check the spread. On new seedings it is best to anticipate the trouble and spray before any disease appears.

Weed Control

Crab grass is our most troublesome weed. A lawn must be kept vigorous at all times by adequate watering and fertilization, or crab grass will come in. Hand removal, by cutting out the weed at the crown with a sharp knife, is effective, but very slow and expensive.

This should be done before the middle of August in order to prevent the seed from ripening. Keeping the lawn closely cut (raking upward to catch prostrate stems before clipping), with removal of clippings to prevent crab grass from reseeding, is a partial control measure.

Dandelion, plantain, chickweed and self heal are partially controlled by adequate fertilization, particularly with sulfate of ammonia. Hand removal is the only complete control measure.

Insect Control

Japanese and Asiatic beetle grubs. The injury caused to lawns by these grubs is quite typical. The grass dies late in the summer and the surface becomes spongy. The whitish grubs can readily be discovered about an inch below the surface. The infestation is usually in spots the first year or two, but will later extend over the entire lawn unless a treatment is made. Where either the Japanese or Asiatic beetle is present, it is advisable to treat the lawn before there is any injury to the grass.

On established lawns treatment should be made early in the summer, that is, before August 1. Apply a mixture of lead arsenate in water at the rate of 3 pounds of arsenate to 9 gallons of water for each 100 square feet of lawn. The lawn should then be sprinkled lightly with water in order to wash the insecticide off the grass and into the soil. Care should be taken that no run-off occurs. In treating small areas the arsenate should be applied over an area extending about 3 feet in all directions beyond the injured grass.

In case of a new spring seeding of an infested lawn, fertilize and sow the seed as early as possible. Apply arsenate of lead (in water suspension, as above) when the grass is about an inch high. For fall seeding, apply lead arsenate (in solid form, 3 pounds per 100 square feet worked down 3 inches into the soil), seed at once, and wait for two or three weeks, or until spring, before applying fertilizer.

Watering

Heavy watering for about two hours with mechanical sprinkler, not oftener than once a week, is the best practice.

Repair of Lawns

Bare patches should be spaded up, and reseeded as for new lawns, preferably in the fall. If there are many bare spots, the whole lawn should be spaded up.

Thin turf, with no conspicuous bare spots, may be scratched up and reseeded. This is best done in the spring. A top-dressing of mineral fertilizers should be applied a week or so before such reseeding.