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Buffalo Grass

for Lawns

CIRCULAR 63



THE UNIVERSITY of NEBRASKA COLLEGE of AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
W. W. BURR, DIRECTOR.
LINCOLN, NEBRASKA

GRASSES are important in the program of the Nebraska Agricultural Experiment Station. Experiments designed to improve the grasses themselves through breeding, and the production of grasses through better management, have been expanded in recent years. As a part of this work considerable information has become available on buffalo grass and its adaptation to lawns. Since there is widespread interest in its use for lawn purposes, the following circular has been prepared.

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CONTENTS

	PAGE
Methods of Establishing Buffalo Grass.....	3
Getting a Desirable Type.....	3
Obtaining Sod.....	5
Transplanting Sod Pieces.....	6
Care of Buffalo Grass Lawns.....	7

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Buffalo Grass for Lawns

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DURING THE YEARS since 1934 many bluegrass lawns in Nebraska have suffered serious deterioration as a result of drouth and high summer temperature. As a substitute the native buffalo grass has been used increasingly for lawn purposes. Results of experiments and observations indicate definitely that for certain locations buffalo grass has sufficient advantage over bluegrass to recommend it as a permanent lawn grass.

Buffalo grass has a summer habit of growth and is more tolerant of dry, hot conditions than is bluegrass. It has a dry and somewhat unattractive appearance during the fall and early spring months, whereas bluegrass usually has a green color during this time.

Buffalo grass can be maintained with little or no mowing or artificial watering; and for this reason its use is particularly attractive on farms where watering is often difficult and where little time may be available for lawn work during the busy summer months. It is the best lawn grass for central and western Nebraska, except for lawns which are shaded or which can be watered readily. Kentucky bluegrass continues to be the best for most lawns in the eastern part, but even here buffalo grass can well be used for terraces and parkways, for yards exposed to the sun, and for many farm lawns. Under average rainfall conditions in eastern Nebraska, bluegrass may invade buffalo grass lawns.

Methods of Establishing Buffalo Grass

Buffalo grass may be propagated in either of two ways: by seeding or by sodding. Establishing stands on a large scale by seeding is not practical, however, because of the high cost of seed. Seed is expensive because of the difficulty of harvesting. Since the seed burs are produced just above the surface of the ground (Fig. 1), ordinary harvesting methods cannot be used. Harvesting is done chiefly by sweeping the seed burs with brooms or gathering them with a vacuum machine after they have matured and become detached from the mother plants.

Where seeding is attempted it should be done on a well packed, pulverized, relatively weed-free, moist seedbed. The seed does not germinate in cold soil. Therefore planting should be delayed until the latter part of April or the early part of May. Prior to this, the ground should be worked as necessary to control weeds. Seeding in the fall is not recommended.

Under average conditions, planting sod pieces is the recommended method of establishment. Stands can usually be established more quickly and more cheaply with sod pieces than with seed. The sod pieces planted at intervals of one to two feet in both directions will ordinarily result in complete ground coverage within one growing season.

Getting a Desirable Type of Grass

Buffalo grass, as it grows naturally, consists of various types. These types differ markedly in such characteristics as intensity of color, height, erectness

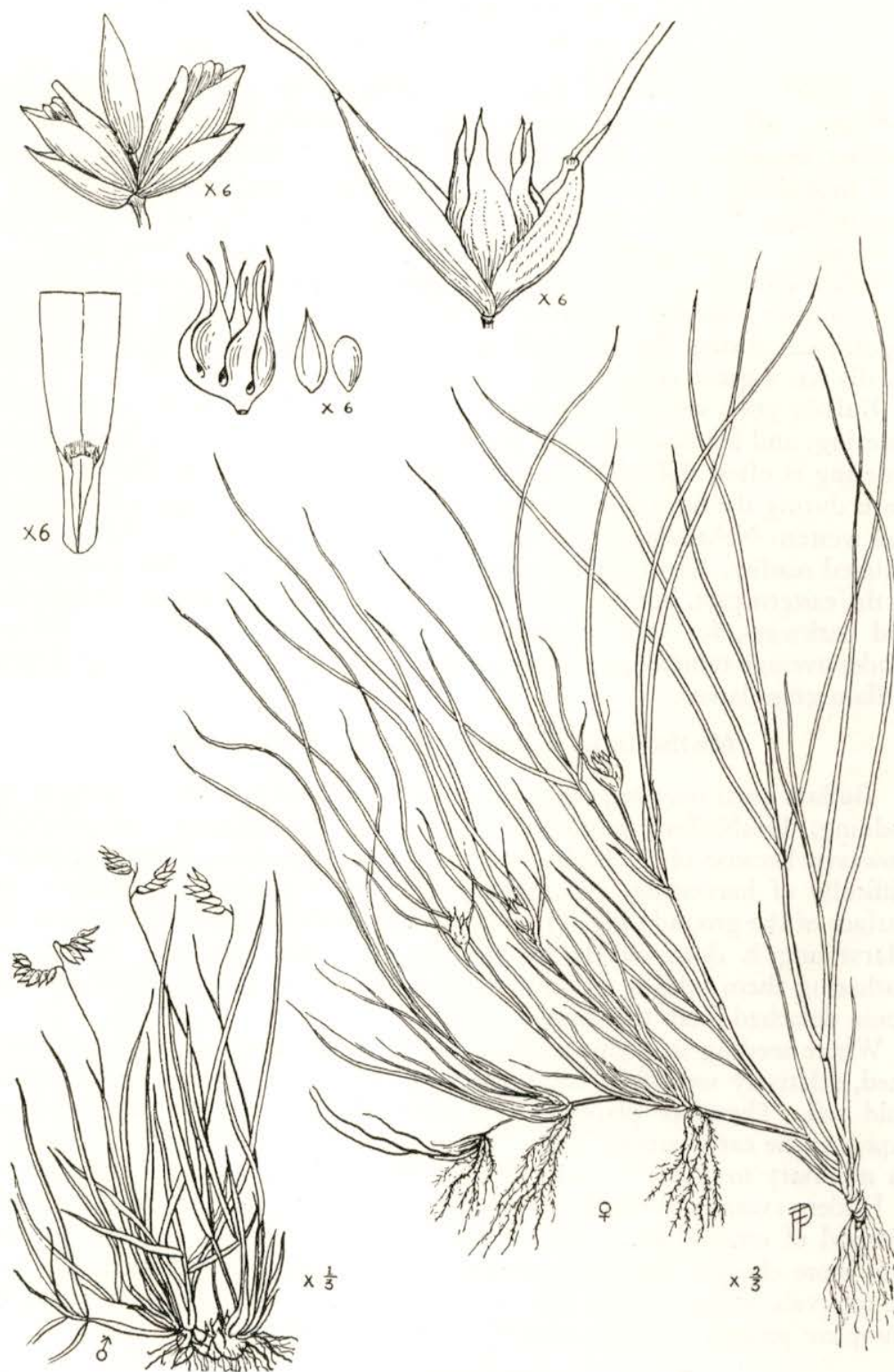


FIG. 1.—Buffalo grass (*Buchloë dactyloides*). Staminate plant $\times \frac{1}{3}$; pistillate plant $\times \frac{2}{3}$; staminate spikelet $\times 6$; pistillate spikelet $\times 6$; ligule area $\times 6$; seed $\times 6$. Occasionally plants are found with both staminate and pistillate spikelets.



FIG. 2.—An important use for buffalo grass—between sidewalk and curbing.

of growth, and rapidity of spread. If sod is secured from an ordinary field, the lawn may lack a uniform appearance because it is composed of these various types.

Furthermore, both staminate and pistillate plants (Fig. 1) are ordinarily included if the sod is obtained under field conditions. This is not objectionable if the lawn is mowed regularly since the difference between the two kinds of plants is then not apparent. A pure stand of staminate plants is not so desirable as one containing only pistillate plants because the male flowers borne on the relatively long stalks detract somewhat from the appearance.

In order to get a uniform type of grass it may be necessary first to establish a small area of sod from a few plants of known habit of growth. This initial planting can also be made with seed from a good type unless one desires only staminate plants. In order to get the latter, the initial planting must be made with plants rather than with seed. The planting should be made on fertile soil in good tilth as in a portion of the garden. The entire lawn can then be planted with sod pieces from this initial small planting.

If sod is taken from ordinary fields, it should be taken only from thick stands of relatively pure buffalo grass.

Obtaining Sod

Buffalo grass sod can be obtained from native grasslands or from nurseries. Native stands are most abundant in the western and south-central parts of the state. Sod should be moved only when the soil is reason-

ably moist. If the soil is excessively dry, it tends to crumble and leave the roots exposed. Exposure of the roots for any length of time may result in the death of many of the plants. The sod should be taken at a depth of about three inches.

A sod cutter pulled by a tractor or horses may well be used where a large amount of sod is to be taken from a field. Such a sod cutter can be constructed by bolting a sharpened U-shaped steel blade to a suitable frame. The cutter should take about a 12-inch strip and it can be equipped with a roller colter to further divide the strip of sod into two six-inch strips. The strips can then be cut crosswise with a sharp spade into desirable-sized pieces for moving.

If the restoration of a grass cover on the land from which sod is taken is desired, alternate strips of sod should be left undisturbed. The denuded strips will soon be covered with grass propagated by stolons growing from the undisturbed strips. If it is desired to have the field level, the furrows can be filled with dirt or the sod from the undisturbed strips can be removed later. Where sod is removed from rolling land, it should be taken only on the contour.

The English bulb-planting tool is a convenient implement for use in obtaining small quantities of sod. It is a sharp steel cutter built to secure cores of sod. Circular plugs, approximately two and one-half inches in diameter, are easily secured with it. An ordinary spade may also be used in removing sod for planting.

Transplanting Sod Pieces

A well-prepared seedbed is very helpful in getting a stand of buffalo grass. The ground should be plowed or spaded well in advance of time of planting. The soil should be reasonably free of weeds, pulverized, moist, and well packed. It should also be reasonably fertile.

The most favorable time of the year to plant buffalo-grass sod pieces is from the first of May to the fifteenth of June. This period represents the beginning and early part of the growing season. When moved at this time the grass spreads rapidly and covers the ground in less time than if moved at any other period of the year. Since weed control is usually necessary until the ground is completely covered, the minimum amount of labor in weeding is required by planting during May or up to the middle of June. Planting can be done, however, from the first of May to the middle of August.

Pieces of sod approximately three inches on a side are a convenient and practical size. The circular plug taken by the English bulb planting tool is also satisfactory.

The sod pieces may be planted anywhere from one to three feet apart each way. Under reasonably favorable moisture conditions, spacing of 18 inches with planting at the recommended time usually results in complete coverage of the ground in one season. More time is required in getting complete coverage when the sod pieces are planted further apart. Also,



FIG. 3.—Rose-garden walks sodded with buffalo grass on the campus of the College of Agriculture, University of Nebraska. The grass is clipped closely and stands up well under heavy use.

the wider the spacing the more labor is required in weed control, since a longer time is necessary to get complete coverage.

Unless the soil is in unusually good tilth, it is well to dig small holes for planting the sod pieces. The pieces should be set with the top about level with the surface of the surrounding ground and the dirt tamped around each piece. Liberal watering immediately after planting, although not always necessary, helps a great deal to insure establishment.

Care of Buffalo Grass Lawns

Buffalo grass lawns ordinarily require considerable attention from the time of planting until the ground is completely covered. Weeds should be destroyed as necessary with the least possible disturbance to the stolons from which new plants arise. Weeds can ordinarily be removed with least injury to the stolons by hand pulling. Artificial watering during prolonged periods of drouth while the buffalo grass is becoming established is very helpful. It may reduce considerably the amount of time needed to get complete coverage of the ground.

Established buffalo grass lawns can be maintained with very little attention. It is not necessary to water them. The surface growth may take on a dry appearance during extended periods of dry weather but the roots are not easily injured by drouth. Mowing is not essential. Weeds are usually not serious in good, vigorous-growing buffalo grass lawns.



FIG. 4.—Buffalo-grass lawn on the campus of the College of Agriculture, established by sodding in 1938. Sods were transplanted in May and the lawn was mowed, as shown above, in September. With the help of some weeding and artificial watering a dense cover was established in one season.

Buffalo grass lawns are more attractive, however, if they are mowed and watered occasionally. Care should be taken not to apply water too frequently as this will favor the growth of weeds. The soil should be kept in a good state of fertility. Soils too low in fertility to maintain a bluegrass lawn are likewise unsatisfactory for a buffalo grass lawn.

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