

Mimeographed Circular M-244

May, 1953

LAWN FERTILIZERS
for the
OKLAHOMA PANHANDLE

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A high percentage of the requests for soil tests coming to the Panhandle Station laboratory are from persons having trouble with their lawns. This publication was prepared to indicate the various types of fertilizers which may be used on lawns in the Oklahoma Panhandle, and to describe their application.

Fertilizing Established Lawns

Fertilized Lawns Need Watering. --- Commercial fertilizers properly used can do much to improve or help establish lawns for homes, parks, athletic fields, and other areas where a sod cover is desired. However, to obtain benefits from the use of fertilizer it will be necessary to have facilities for supplying water regularly and in sufficient amounts to support the extra growth brought about by fertilization.

Lawns that have been fertilized should be soaked to a depth of five to six inches regularly during the growing season. Shaded areas should be watered more often, and to the same depth. This will insure a strong, deep root-system.

Watering frequently, but in small quantities, will result in a shallow root-system that is undesirable for a good sod.

Lawns may be pure grass stands, or grass-legume mixtures. In a few instances, pure stands of legumes are desired. The plant food requirement of each type is somewhat different, so the amount and type of fertilizer used must be varied accordingly. The table on the last page lists the common types of fertilizer materials, and the ways of using each.

Nitrogen Is Principal Need. --- Grasses are heavy feeders on nitrogen. In the Oklahoma Panhandle, nitrogen is usually the only additional plant food needed for normal growth. Grass that is well supplied with nitrogen has a dark green color. A light or yellowish green color is usually an indication that nitrogen is needed.

Some kinds of grass -- for example, Kentucky bluegrass -- may remain yellow even after nitrogen is applied. This symptom indicates lack of iron, and usually occurs where grass is growing on soils containing large amounts of lime or caliche. An application of iron sulfate

at the rate of 1 pound per 100 square feet of lawn will usually correct this condition.

Applying the Fertilizers. --- Rate and time of application are given in the table. The best method of application is the one that is easiest and least expensive. All the materials listed in the table can be spread by hand or with simple tools if a spreader is not available. Care must be taken, however, to see that inorganic materials are spread evenly to avoid over-fertilization and burning in spots.

Pure grass stands should receive one of the nitrogen fertilizers, at the specified rate, three times during each growing season. Grasses on very sandy soils should be fertilized with one of the mixed fertilizers.

Grass-legume mixtures should receive one of the mixed fertilizers at the specified rate and time.

Pure stands of legumes (clovers) should receive an application of one of the phosphate fertilizers at planting time. On soils low in fertility, a light application of nitrogen fertilizer (about half the amount recommended for grasses) should be applied with the superphosphate.

Organic fertilizers produce good results on all types of lawn vegetation.

Starting New Lawns

It is often necessary to establish a sod cover on rough, uneven land, on steep slopes, or on shallow, rocky soil. Excavating and leveling often remove considerable quantities of topsoil and create poor conditions for establishing a lawn. Correction of this condition must precede planting.

Addition of four or five inches of good topsoil, plus an application of barnyard manure, will help re-establish desirable soil tilth. Where low areas are filled in, good topsoil should be used for the final four or five inches of fill. After topsoil and manure have been applied, use of fertilizer as recommended in the table will help establish a strong sod within a reasonable time.

Use of Fertilizers on Lawns in Oklahoma Panhandle

	Fertilizer Material	Rate (lbs. per 100 sq. ft.)	Time of Application	Vegetation to Be Treated	Management
Nitrogen Fertilizers	Ammonium nitrate	1	Spring, mid-summer and fall	Grass	Apply when grass is dry. Water immediately after application.
	Ammonium sulfate	2	"	"	
Organic Fertilizers	Barnyard Manure	Cover entire area 2 inches deep	Early spring, and again in fall	All	Very good on all lawns, especially new areas or shallow and tight soils.
	Cottonseed meal	5 to 6	"	All	A good substitute when barnyard manure is not available.
Mixed Fertilizers	4-12-4	8	Spring, mid-summer and fall	Grass + legume	Apply when plants are dry. Water immediately after application.
	5-10-5	6 to 7	"	"	"
	4-16-0	8	"	"	"
	10-20-0	1 to 3	"	"	"
Phosphorus Fertilizers	Superphosphate	2	Planting time	Legumes	Apply and work into soil. Water immediately after application.
	Treble superphosphate	1	"	"	"