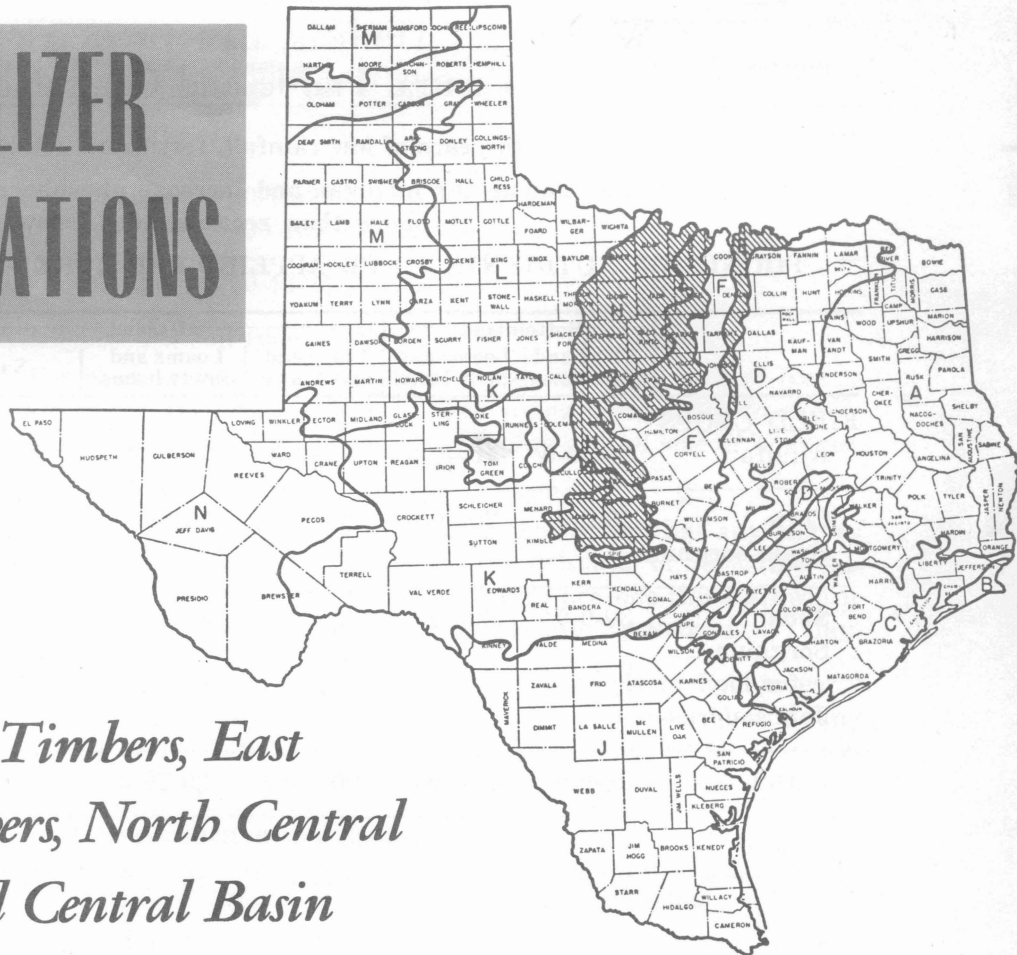


GENERAL FERTILIZER RECOMMENDATIONS



for the West Cross Timbers, East Cross Timbers, North Central Prairie and Central Basin

THE AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS
TEXAS AGRICULTURAL EXTENSION SERVICE
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RECOMMENDATIONS for fertilizers in this leaflet are those found best by experiments, soil test summaries and practical experience in the field. The recommendations are general in scope. Since soils vary so much in nutrient levels, *soil tests should be made in order to obtain more definite and economical fertilizer recommendations.*

For best results with fertilizers, other factors should be favorable, such as a well-prepared seedbed, good stand, absence of disease, adequate moisture, aeration and good cultural practices. Good cropping systems with legumes in rotation aid in a favorable response of crops to fertilizers. When crops follow legumes turned under, the amount of nitrogen needed may be reduced. Where soil and crop management practices are favorable, even higher rates of fertilization than those shown may be economically advantageous.

The letters NR mean that the crop is not recommended for this class of soils.

LAND RESOURCE AREAS

- A East Texas Timberlands
- B Coast Marsh
- C Coast Prairie
- D Blackland Prairies
- E East Cross Timbers
- F Grand Prairie
- G West Cross Timbers
- H North Central Prairies
- I Central Basin
- J Rio Grande Plain
- K Edwards Plateau
- L Rolling Plains
- M High Plains
- N Trans-Pecos

Developed by Personnel of the Department of Soil and Crop Sciences, College Station and Substation No. 20, Stephenville of The A&M College of Texas



West Cross Timbers, East Cross Timbers, North Central Prairie and Central Basin

(In years of low rainfall, fertilizers will not pay.)

On irrigated land, double the nitrogen and increase phosphorus and potassium by one-half more than recommended below.

POUNDS OF NUTRIENTS TO BE APPLIED PER ACRE AT OR BEFORE PLANTING

	Bottomland		Upland			Additional treatment
	Clays and clay loams	Loams and sandy loams	Clays and clay loams	Loams and sandy loams	Sands	
FIELD CROPS*						
Alfalfa	10-40-0	10-40-0	10-40-0	10-40-0	20-40-40	
Corn	20-0-0	20-20-0	20-0-0	30-30-0	30-30-30	
Grain sorghum						
Sudan Sorghum for hay	30-0-0	30-30-0	30-0-0	30-30-0	30-30-30	Sidedress with 20-0-0 after utilization if soil moisture is adequate.
Johnsongrass						
Cotton	20-0-0	20-20-0	20-0-0	20-20-0	20-20-20	
Annual legumes	0-30-0	0-40-0	0-40-0	10-30-0	15-30-15	
Small grains for grain only	0-0-0	0-20-0	0-20-0	15-30-0	15-30-15	Topdress with 30-0-0 in February.
Pastures Grasses or small grains	20-0-0	20-20-0	20-20-0	20-40-0	20-40-20	Topdress with 30-0-0 if soil moisture is adequate
Pastures Grass-Legume	20-20-0	20-20-0	20-20-0	20-40-0	20-40-20	
Peanuts	NR	15-30-0	NR	15-30-0	15-30-15	
TRUCK CROPS*						
Cantaloupes	NR	30-30-0	NR	30-30-0	30-30-15	
Peppers	15-15-0	15-30-0	15-30-0	15-30-15	15-30-15	
Tomatoes						
Sweet potatoes—						
Dryland	0-0-0	20-40-0	20-40-0	20-40-20	20-40-20	
Irrigated	40-40-0	40-80-0	40-80-0	40-80-40	40-80-80	

	Bottomland		Upland			Additional treatment
	Clays and clay loams	Loams and sandy loams	Clays and clay loams	Loams and sandy loams	Sands	
Irish potatoes—						
Dryland	0-0-0	20-40-0	20-40-0	20-40-20	20-40-20	
Irrigated	40-40-0	60-60-0	100-60-0	100-100-50	100-100-100	
Watermelons	0-40-0	20-40-0	20-40-0	20-40-20	20-40-40	

FRUIT*

Nitrogen—All soil types

Pecan bearing trees

For bearing trees apply $\frac{1}{3}$ lb. of N per diameter inch of tree in late February or early March. For young trees apply from one-fourth to one-half as much N, depending on the size of the tree.

Zinc—All soil types

If there are any signs of rosette or if the orchard has any history of zinc deficiency, spray pecan leaves with 3 lb. of 36% zinc sulphate per 100 gal. of water when leaves are one-third grown or mix with regular casebearer spray in late April or early May.

		Pounds of fertilizer per inch of tree diameter.				
Apple, pear bearing trees	NR	NR	$\frac{1}{2}$ lb. 10-20-0	$\frac{1}{2}$ lb. 10-20-0	$\frac{1}{2}$ lb. 10-20-20	Apply in Feb. or early March. For young trees, $\frac{1}{3}$ to $\frac{1}{2}$ quantity for bearing trees.
Peach, plum bearing trees	NR	NR	$\frac{1}{2}$ lb. 20-0-0	$\frac{1}{2}$ lb. 10-20-10	$\frac{1}{2}$ lb. 10-20-20	Apply in Feb. If cover crops are used, apply in late March.
Nonbearing trees			$\frac{1}{2}$ lb. 20-0-0	$\frac{1}{2}$ lb. 20-0-0	$\frac{1}{2}$ lb. 20-0-0	Apply in February and same amount in June.
Blackberries Dewberries	NR	20-20-0	NR	20-40-0	20-40-20	
Grapes	NR	20-20-0	NR	20-40-0	20-40-20	

*To insure good yields, the recommendations given above are based on favorable moisture conditions for the area. In years when subsoil moisture is very low and surface soil moisture is below normal, fertilizer probably will not pay.

GRADES OF FERTILIZER

The fertilizer recommendations are expressed in pounds of nutrients per acre and do not represent fertilizer grades. For example, 15-30-0 means 15 pounds of nitrogen, 30 pounds of P_2O_5 and no K_2O . The nutrients must be obtained from materials or fertilizer mixtures sold on the market.

For example, a recommendation calling for 15-30-0, which is a 1:2:0 ratio, can be obtained by applying 185 pounds of 8-16-0 or 150 pounds of 10-20-0. Again, if a recommendation calls

for 15-60-0, this may be obtained by applying about 400 pounds of a 4-16-0 or 125 pounds of 11-48-0.

METHOD OF APPLICATION

Row Crops: Fertilizer can be applied prior to or at planting. Fertilizers are more efficiently used by most crops when applied in a band 2 to 3 inches to the side and 2 to 3 inches below the seed. Fertilizer can be applied while planting or cultivating if equipment is available.

It can also be applied in the furrow prior to last rebedding in heavy textured soil. Avoid putting the seed too close to the fertilizer because germination may be impaired.

If large quantities of nitrogen fertilizer are to be applied, part of the nitrogen can be applied with the phosphorus and potassium and the remainder applied 35 to 45 days later as a side or topdressing.

Small Grains: Fertilizers for small grains may be broadcast, drilled in or plowed in. Fertilizers containing nitrogen and potassium should not be allowed to touch the seed.

Phosphorus, potassium and part of the nitrogen should be applied at or before seeding.

The rest of the nitrogen should be applied in the spring before plants begin to joint.

Pastures: For establishing improved pastures, fertilizer should be applied in bands when possible. Otherwise, it should be broadcast, drilled or plowed in. For maintenance of grass pastures, topdress with 30-0-0 as needed. Repeat basic fertilizer treatment annually as suggested or according to a soil test.

Fruit Trees: Fertilizer for fruit trees may be applied over the entire area covered by the orchard when the trees are mature. In non-bearing orchards, the fertilizer should be applied over the area covered by the spread of the limbs. Keep fertilizer 1 foot away from tree trunks. Cultivate fertilizer applications into the soil.