

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

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

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Gulf Coast Prairie

POUNDS OF NUTRIENTS TO BE APPLIED PER ACRE AT OR BEFORE PLANTING RECOMMENDATIONS ARE LISTED IN LB. N, LB. P_2O_5 and LB. K_2O

Contract Contract	The second new	-Bottomland			— Upland -		
	Calcareous clays and clay loams	Calcareous loams and sandy loams	Non- calcareous loams and sandy loams	Clay and clay loams	Loams and sandy loams	Sands	Additional treatment
		N.	AMES OF I	MPORTAN	r soil tyl	PES	
	Miller P.ledger	Norwood Yahola	Kaufman Navasota	Lake Charle Beaumont Bernard		Galveston Kinny	
IELD CRO Alfalfa	0-40-0	15-60-0 n those are	20-80-80 as with goo	15-60-0* od subsurf	NR ace draina	NR ge.	Apply 0-60-0 annually for maintenance. Apply lime according to soil test.
Corn Grain sorghum	80-30-0	80-30-0	70-40-40	70-40-0	80-40-40	80-40-80	ecsu.
Sweet sorghum Sudan	60-40-0	60-40-0	60-60-60	60-60-0	60-60-30	60-60-60	Topdress with 60-0-0 each cutting or each time grazed down when soil moisture is adequate.
Cotton Sesame	40-40-0	60-40-0	30-60-30	60-60-0	60-60-30	60-60-60	
Pastures† Grass an legumes	30-30-0 ad	30-30-0	30-60-30	30-60-0	30-60-30	30-60-60	Apply lime according to soil test. Top-dress 0-40-0 in fall for maintenance.
Pastures† Grasses including	30-30-0 only, g small gr	30-30-0 rains	30-60-30	30-60-0	30-60-30	30-60-60	Topdress with 30-0-0 each time grazed or cut when soil moisture is adequate. Lime according to soil test.
Coastal† Bermuda	100-60-0	0 100-60-0	100-60-30	100-60-0	100-60-30	100-60-60	Topdress 50-0-0 every 2 to 3 months if grazed and 100-0-0 each time cut for hay if soil moisture is adequate.
Flax	30-30-0	30-30-0	30-60-30	30-30-0	30-30-30	30-60-60	Topdress in January with 30-0-0.

[†]Apply fertilizer in early spring as plants begin to grow.

Legumes	0-40-0	0-40-0	0-60-30	0-60-0	0-60-30	15-60-60	
Peanuts	NR	NR	NR	20-40-0	20-40-20	20-40-40	Apply 300 lb. gypsum at bloom over peg zone.
Rice	NR	NR	80-40-0	80-40-0	40-40-20	40-40-20	If fields are weedy the fertilizer should be applied 30 to 45 days after planting.
RUCK CRO Lettuce Cabbage Mustard Collards	PS†† 40-40-0	40-80-0	40-80-40	40-80-0	40-80-40	40-80-80	Sidedress with 60-0-0 when heads begin to form. For mustard, 10 days from emergence.
Carrots Beets Turnips	40-40-0	40-80-0	40-80-40	40-80-0	40-80-80	30-120-120	
Sweet potatoes	NR	40-80-0	40-80-40	NR	40-80-40	40-80-80	
Irish potatoes	NR	80-80-0	80-80-40	NR	80-80-40	80-80-80	
Tomatoes Peppers Eggplants	40-40-0	40-80-0	40-80-40	40-80-0	40-80-40	40-80-80	Sidedress with 30-0-0 if soil moisture is adequate.
Canta- loupes	30-30-0	30-60-0	30-60-30	30-60-0	30-60-30	30-60-60	
Squash Cucumbers	30-30-0	30-60-0	30-60-30	30-60-0	30-60-30	30-60-60	Sidedress with 30-0-0 when vines start to bloom.
Water- melons	NR	20-40-80	20-40-120	NR	20-80-160	20-80-160	Sidedress with 20-0-0 when vines start to bloom.
Onions	NR	40-80-0	40-80-40	NR	40-80-40	40-80-80	
General garden	40-80-0	40-80-40	40-40-40	40-80-0	40-80-40	40-80-80	Sidedress in 40 days with 40-0-0.
†The use of a						ne time of	transplanting has been
RUIT TREE	ES 30-30-0	30-60-0	30-60-30	30-60-0	30-60-30	30-60-60	Sidedress in May or June with 30-0-0.

Pecans

Nitrogen-All soil types

For bearing trees, apply ½ pound of N per inch of tree diameter 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 pounds of 36 percent zinc sulfate per 100 gallons of water when leaves are one-third grown or mix with regular casebearer spray in late April or early May.

To insure good yields, the recommendations given above are based on normal moisture conditions for the area. In years when subsoil moisture is very low and surface soil moisture is below normal, use one-third to one-fourth less at planting time, using the remainder as a sidedressing if rains come within 30 days from planting. When supplementary irrigation is available for field crops, double the nitrogen recommended and increase phosphorus and potassium by one-half. Lime often is needed on Coast Prairie Soils. Apply according to soil test.

GRADES OF FERTILIZER

These fertilizer recommendations are expressed in pounds of nutrients per acre and do not represent fertilizer grades. For example, 30-60-0 means 30 pounds nitrogen (N), 60 pounds phosphate (P_2O_5) and no potash (K_2O). The nutrients must be obtained from materials or fertilizer mixtures sold on the market.

For example, a recommendation calling for 30-60-30, which is a 1:2:1 ratio, can be obtained by applying 500 pounds of 6-12-6 or 250 pounds of 12-24-12 or 300 pounds of 10-20-10. Again, if a recommendation calls for 30-60-0, this may be obtained by applying about 300 pounds of a 10-20-0 or 375 pounds of 8-16-0.

METHOD OF APPLICATION

Row Crops: Fertilizer usually is applied at the time of planting or just before. 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.

If equipment for applying fertilizers in bands while planting or cultivating is not available, apply the fertilizer in the furrow and bed on it when the land is prepared for planting. 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 potash and the remainder applied 35 to 45 days later as a side or topdressing.

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

Phosphorus, potash 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 broadcast, drilled or plowed in. For maintenance of grass pasture, topdress with 30-0-0 as needed. Repeat annually the basic fertilizer treatment 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.