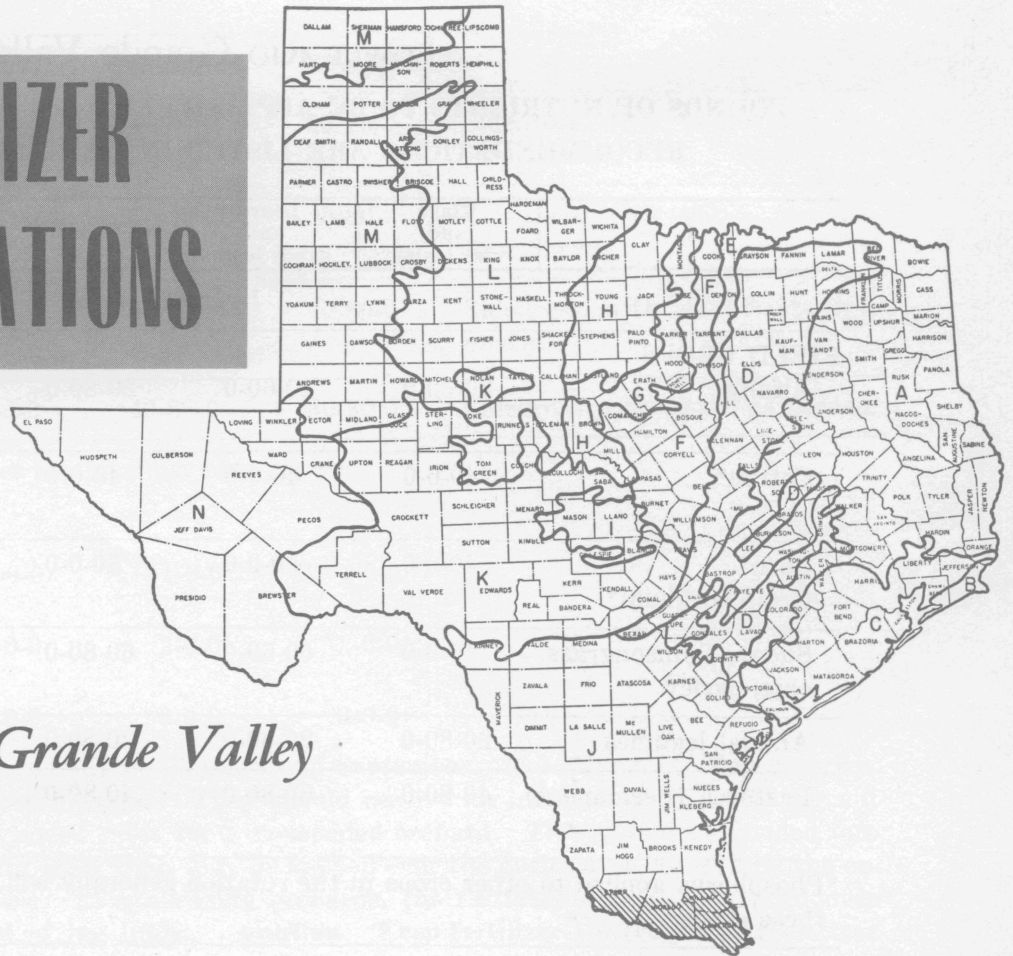


GENERAL FERTILIZER RECOMMENDATIONS



for the Lower Rio Grande Valley

TEXAS AGRICULTURAL EXTENSION SERVICE
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RECOMMENDATIONS for fertilizers in this leaflet are those found best by research, 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

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Lower Rio Grande Valley

**POUNDS OF NUTRIENTS TO BE APPLIED PER ACRE AT OR BEFORE PLANTING
RECOMMENDATIONS ARE LISTED IN LB. N, LB. P₂O₅ and LB. K₂O**

	Clays and clay loams	Loams and sandy loams	Sands	Additional treatment
Irrigated				
FIELD CROPS				
Alfalfa	20-60-0	20-60-0	20-80-0	Topdress with 30-0-0 each cutting and 0-60-0 annually in spring for maintenance.
Cotton*	40-0-0	40-0-0	40-0-0	Sidedress with 40-0-0 at first forms.
Corn* Grain sorghum*	40-0-0	60-0-0	60-0-0	Sidedress with 60-0-0 at knee high.
Sudan, Johnsongrass, oats, barley	40-0-0	60-60-0	60-80-0	Sidedress with 60-0-0 each time cut or grazed down.
Annual legumes	20-80-0	20-80-0	20-80-0	
Pastures (Permanent)	40-80-0	60-80-0	40-80-0	Topdress with 60-0-0 each time cut or grazed down.
*Phosphorus applied to other crops in the rotation generally will take care of phosphorus needs for these crops.				
TRUCK CROPS				
Spinach, escarole, endive, dandelion, collards, parsley	40-40-0	40-80-0	80-80-0	
Cabbage	60-60-0	60-60-0	60-60-0	60-0-0 when plants begin to head.
Broccoli	60-60-0	60-60-0	60-60-0	60-0-0 at 6 to 8 leaves.
Lettuce	40-60-0	40-60-0	60-60-0	60-0-0 when plants begin to head.
Sweet corn	40-0-0	40-0-0	40-0-0	40-0-0 when plants are knee high.
Tomatoes	40-80-0	40-80-0	40-80-0	40-0-0 at set of first fruit.
Eggplants	40-80-0	40-80-0	60-80-0	
Peppers	80-80-0	80-80-0	80-80-0	Sidedress with 40-0-0 as needed.
Potatoes	40-40-0	40-80-0	80-80-0	Sidedress with 40-0-0 as needed.
Carrots	40-40-0	40-80-0	40-80-0	Sidedress with 40-0-0 as needed.
Beets, turnips	40-40-0	40-40-0	40-80-0	Sidedress with 40-0-0 as needed.

Onions	80-40-0	80-80-0	80-80-0	
Squash	40-80-0	40-80-0	40-80-0	Sidedress with 40-0-0 just before bloom.
Beans and peas	40-40-0	40-80-0	40-80-0	Sidedress with 40-0-0 just before bloom.
Watermelons Cucumbers	40-80-0	40-80-0	40-80-0	Sidedress with 40-0-0 at first bloom.
Cantaloupes	40-80-0	40-80-0	80-80-0	Sidedress with 40-0-0 as needed.

CITRUS

Rates are total per tree per year

Young trees, less than 5 years old	1-0-0	1-0-0	1-0-0
Bearing trees, 5-10 years old	2-0-0	2-0-0	2-0-0
Old trees, over 10 years old	3-0-0	3-0-0	3-0-0

Split into two or three applications. If 2—January and September. If 3—January, May and September. Sod orchards need more nitrogen. They should receive an increase of 25 to 50 percent more nitrogen over the recommended rates for a nonsodded orchard. This should be divided into three applications. Fertilizer for fruit trees may be applied over the entire area covered by the orchard when the trees are mature. In nonbearing orchards, the fertilizer should be applied over the area covered by the spread of the limbs. **Caution: Keep fertilizer 1½ feet away from tree trunks.** Cultivate fertilizer applications into the soil.

Nonirrigated

The recommendations for nonirrigated land given below are for normal moisture conditions for the area. In years when subsoil moisture is very low and surface moisture is below normal, fertilizer probably will not pay. If moisture conditions are favorable later in the season, sidedressed applications may be profitable.

FIELD CROPS				Sidedress with 30-0-0 at first forms, if soil moisture is adequate.
Cotton†	30-0-0	30-0-0	30-0-0	
Corn†	30-0-0	30-0-0	30-0-0	Sidedress with 30-0-0 within 35 days if soil moisture is adequate.
Grain Sorghum†				
Annual legumes	20-40-0	20-60-0	20-60-0	
Pastures (Permanent)	40-40-0	40-40-0	40-40-0	Topdress with 30-0-0 about twice during season if soil moisture is adequate.
Pastures Oats and sudan	40-40-0	40-40-0	40-40-0	Topdress with 30-0-0 about twice during season if soil moisture is adequate.

TRUCK CROPS				
Beans, peas	40-40-0	40-40-0	40-40-0	
Cabbage	40-0-0	40-0-0	40-0-0	Sidedress with 40-0-0 if soil moisture is adequate.
Cantaloupes Cucumbers	40-40-0	40-40-0	80-40-0	Sidedress with 40-0-0 at first bloom if soil moisture is adequate.
Squash	40-40-0	40-40-0	40-40-0	
Onions	40-0-0	40-40-0	40-40-0	
Watermelons	30-30-0	30-60-0	30-90-0	Sidedress with 40-0-0 at first bloom if soil moisture is adequate.

†Phosphorus applied to other crops in the rotation generally will take care of phosphorus needs for these crops.

GRADES OF FERTILIZER

The fertilizer recommendations are expressed in pounds of nutrients per acre and do not represent fertilizer grades. The nutrients must be obtained from materials or fertilizer mixtures sold on the market.

For example, a recommendation calling for 60-60-0, which is a 1:1:0 ratio, can be obtained by applying 400 pounds of 15-15-0, or 60-60-0 could be applied by using 300 pounds 10-20-0, plus an application of 30 pounds of actual nitrogen as a straight nitrogen fertilizer. 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 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 is not available for applying fertilizers in bands while planting or cultivating, 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 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 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 just 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 pasture, 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.