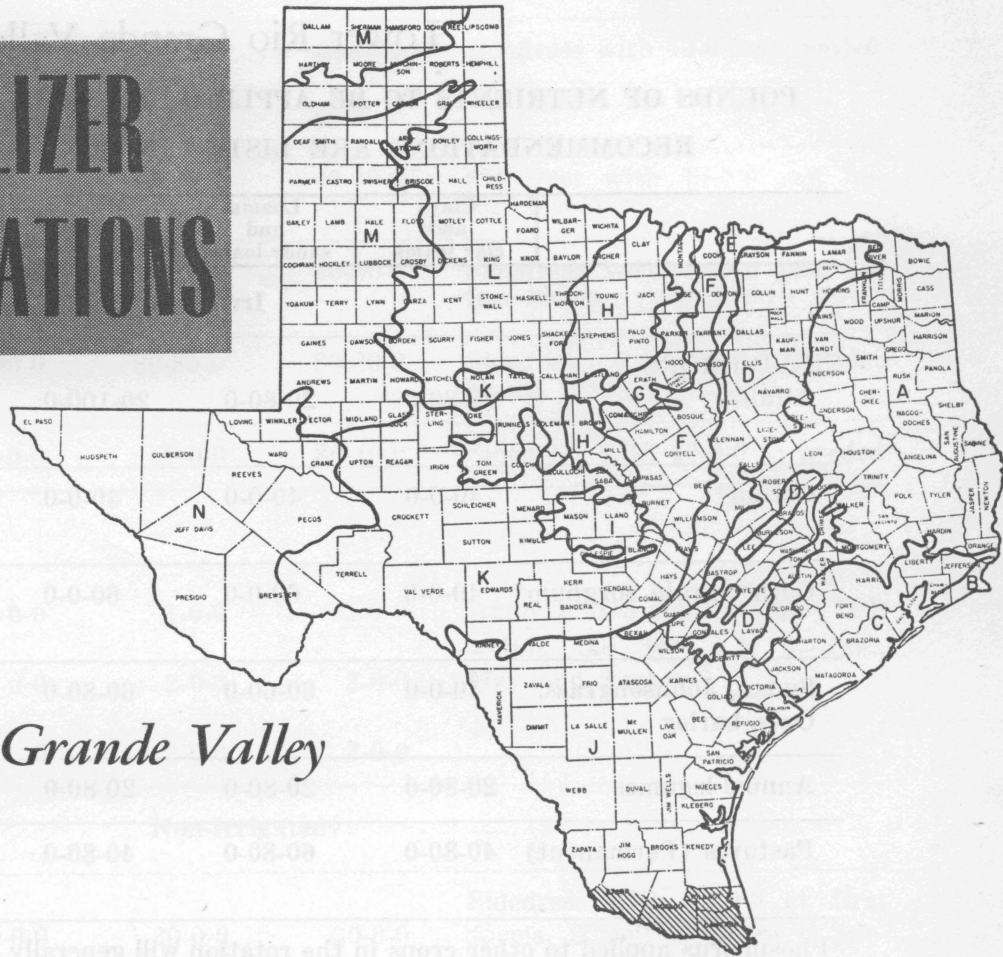


*ms. Dot Halland*

# GENERAL FERTILIZER RECOMMENDATIONS



*for the Lower Rio Grande Valley*

### 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

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 seed bed, 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 very 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.

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TEXAS AGRICULTURAL EXTENSION SERVICE  
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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. P<sub>2</sub>O<sub>5</sub> and LB. K<sub>2</sub>O

	Clays and clay loams	Loams and sandy loams	Sands	Additional treatment
<b>Irrigated</b>				
<b>FIELD CROPS</b>				
Alfalfa	20-80-0	20-80-0	20-100-0	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 will generally take care of phosphorus needs for these crops.				
<b>TRUCK CROPS</b>				
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 6-8 leaves
Lettuce	40-80-0	40-80-0	60-80-0	60-0-0 when plants begin to head
Sweet corn	40-0-0	40-40-0	40-80-0	60-0-0 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	80-80-0	80-80-0	80-80-0	Sidedress with 40-0-0 at 1st bloom
Cantaloupes	40-0-0	40-0-0	80-40-0	Sidedress with 40-0-0 as needed

CITRUS—Per tree

Young trees, less than 5 years old	1-0-0	1-0-0	1-0-0	Apply 2 or 3 applications. If 2—Jan. and Sept. If 3—Jan., May and Sept.
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	

Non-Irrigated†

FIELD CROPS

Cotton**	30-0-0	30-0-0	30-0-0	Sidedress with 30-0-0 at first forms, if soil moisture is adequate
Corn, grain sorghum**	30-0-0	30-0-0	30-0-0	Sidedress with 30-0-0 within 35 days if soil moisture is adequate
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 2 times 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 2 times 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

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 will generally take care of phosphorus needs for these crops.

†The recommendations for non-irrigated land given above 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.

### 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 as 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.