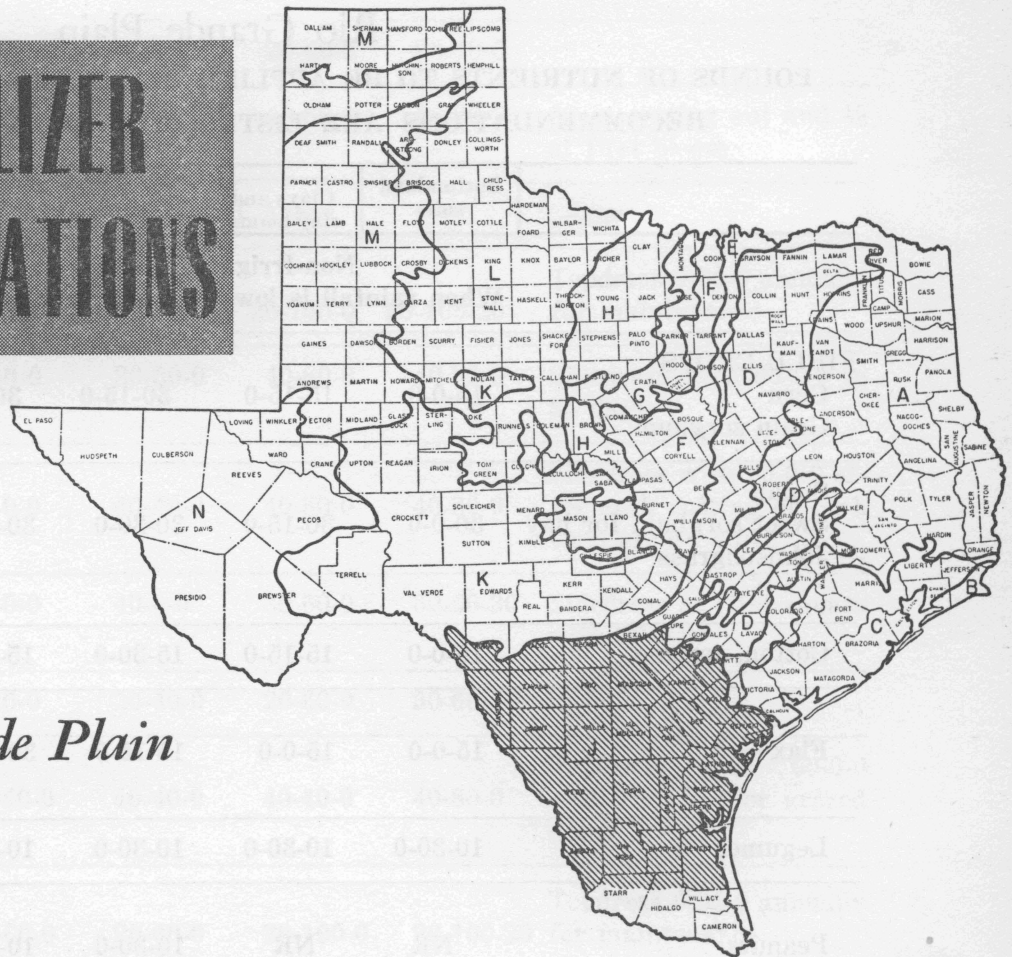


GENERAL FERTILIZER RECOMMENDATIONS



for the Rio Grande Plain

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 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.

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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Rio Grande Plain

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

	Bottomland soils	Clays and clay loams	Uplands Loams		Sands	Additional treatment
Non-Irrigated Areas When rainfall is low, fertilizer will not pay.						
FIELD CROPS						
Corn	15-0-0	15-15-0	30-15-0	30-30-0	Sidedress with 20-0-0 in 35 days if soil moisture is adequate	
Grain sorghum						
Sudan						
Sweet sorghum for hay	30-0-0	30-15-0	30-30-0	30-30-0	Topdress with 20-0-0 after each cutting or each time grazed down if soil moisure is adequate	
Johnsongrass						
Cotton, sesame	15-0-0	15-15-0	15-30-0	15-30-0		
Flax	15-0-0	15-0-0	15-15-0	30-15-0	Topdress in Jan. or early Feb. with 20-0-0 if soil moisture is adequate	
Legumes	10-30-0	10-30-0	10-30-0	10-30-0		
Peanuts	NR	NR	10-30-0	10-30-0	Topdress with 300 lb. gypsum just prior to bloom stage over peg zone	
Pastures						
Grasses and legumes including small grains	30-0-0	30-30-0	30-30-0	30-30-0	Topdress with 20-0-0 after each cutting or grazing down if soil moisture is adequate	
TRUCK CROPS						
Lettuce, cabbage and turnip greens	20-0-0	20-0-0	20-40-0	20-40-0	Sidedress or topdress with 20-0-0 when plants begin to head or at 4-5 leaf stage	
Spinach	20-0-0	20-0-0	20-40-0	20-40-0		
Beets, carrots, turnips	20-0-0	20-0-0	20-40-0	20-40-0		
Peppers and tomatoes	20-0-0	20-0-0	20-40-0	20-40-0	Sidedress with 20-0-0 at first bloom	
Watermelons	NR	NR	20-40-0	20-40-0		
Cucumbers	20-40-0	20-40-0	30-60-0	30-60-30	Sidedress with 20-0-0 when vines begin to run	

Onions	20-0-0	20-0-0	20-40-0	20-40-0	
Strawberries	NR	40-40-0	40-80-0	40-80-20	½ at setting out and ½ at first bloom
Irrigated Areas					
FIELD CROPS					
Alfalfa	20-60-0	20-60-0	20-100-0	20-100-20	Topdress 0-60-0 annually for maintenance
Corn, grain sorghum	30-0-0	30-30-0	40-80-0	40-80-0	Sidedress with 60-0-0 in 35 days
Sweet sorghum for hay, Sudan, Johnsongrass	40-0-0	40-40-0	40-80-0	40-80-0	Sidedress with 60-0-0 after each cutting or each time grazed down
Cotton, sesame	40-0-0	40-0-0	30-60-0	30-60-30	Sidedress at first square with 30-0-0
Legumes	20-40-0	20-40-0	20-60-0	30-60-30	
Pastures, Grasses and small grain	40-40-0	40-40-0	40-40-0	40-80-0	Topdress with 60-0-0 each time cut or grazed down
Pastures Grasses and Legumes	20-60-0	20-60-0	20-100-0	20-100-20	Topdress 0-60-0 annually for maintenance
Peanuts	NR	NR	20-60-0	20-60-0	Topdress with 300 lb. gypsum just prior to bloom stage over peg zone
TRUCK CROPS					
Lettuce, cabbage, turnip greens	40-0-0	40-0-0	40-40-0	40-80-0	Sidedress with 60-0-0 when plants begin to head
Broccoli, cauliflower	20-40-0	20-40-0	30-60-0	40-80-0	Sidedress Broccoli with 40-0-0 after first cutting
Carrots, beets, turnips	NR	40-80-0	40-80-0	40-80-0	½ at planting—½ in 60 days
Irish potatoes	0-0-0	40-40-0	40-80-0	80-80-0	½ at planting—½ in 40 days
Tomatoes, peppers, eggplants	0-0-0	40-40-0	40-80-0	40-80-0	Sidedress at set of first fruit with 40-0-0
Cucumbers, squash	0-0-0	40-40-0	40-80-0	40-80-0	Sidedress with 40-0-0 when vines begin to run

Cantaloupes, watermelons	0-30-0	20-40-0	30-60-0	30-60-30	
Spinach	0-80-0	0-80-0	20-80-0	40-80-0	
Onions	20-40-0	20-40-0	40-80-0	40-80-0	
General garden	20-40-0	40-40-0	40-80-0	40-80-0	
Grapefruit, oranges, lemons	0-0-0	20-0-0	20-40-0	20-40-0	Sidedress in spring or early summer with 60-0-0

GRADES OF FERTILIZER

The fertilizer recommendations are expressed in pounds of nutrients per acre and do not represent fertilizer grades. For example, 30-30-0 means 30 pounds N, 30 pounds P_2O_5 and not any K_2O per acre. 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 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 avail-

able, 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 the remainder applied 35 to 45 days later as a side or top-dressing.

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 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.