

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 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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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 | Upland | | | Additional treatment |
|--|---------------------|-------------------------|---------|----------|---|
| | | Clays and clay loams | Loams | Sands | |
| Nonirrigated Areas When rainfall is low, fertilizer will not pay. | | | | | |
| FIELD CROPS | | | | | |
| Corn | 30-0-0 | 30-15-0 | 30-15-0 | 30-30-0 | |
| Grain sorghum | | | | | |
| Sudan | 30-0-0 | 30-15-0 | 30-30-0 | 30-30-0 | |
| Sweet sorghum for hay | | | | | |
| Johnsongrass | | | | | |
| Cotton, sesame | 30-0-0 | 30-30-0 | 30-30-0 | 30-30-0 | |
| Flax | | | | | Topdress in Jan. or early Feb. with 20-0-0 if soil moisture is ade- quate |
| Legumes | 10-30-0 | 10-30-0 | 10-30-0 | 10-30-0 | |
| Peanuts | NR | NR | 0-30-0 | 0-30-0 | Topdress with 300 lb. gypsum just prior to bloom stage over peg zone on Virginia type only. |
| Pastures | 30-0-0 | 30-30-0 | 30-30-0 | 30-30-0 | |
| Grasses and legumes including small grains | | | | | |
| TRUCK CROPS | | | | | |
| Lettuce, caggage, 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 to 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, 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 | Sidedress with 20-0-0 when vines begin to run. |
| Cucumbers | 20-40-0 | 20-40-0 | 30-60-0 | 30-60-30 | |
| Onions | 20-0-0 | 20-0-0 | 20-40-0 | 20-40-0 | |

| | Bottomland soils | Upland | | | Additional treatment |
|--|---------------------|-------------------------|----------|-----------|---|
| | | Clays and clay loams | Loams | Sands | |
| Strawberries | NR | 40-40-0 | 40-80-0 | 40-80-20 | 1/2 at setting out and 1/2 at first bloom. |
| Irrigated Areas | | | | | |
| FIELD CROPS | | | | | Topdress 0-60-0 annu- ally for maintenance. |
| Alfalfa | 20-60-0 | 20-60-0 | 20-100-0 | 20-100-20 | |
| Corn, grain sorghum | 70-0-0 | 70-30-0 | 80-80-0 | 80-80-0 | |
| Sweet sorghum for hay, Sudan, Johnsongrass | 30-0-0 | 80-40-0 | 80-80-0 | 80-80-0 | |
| Cotton, sesame | 60-0-0 | 60-0-0 | 60-60-0 | 60-60-30 | |
| 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 Grass and legume | 20-60-0 | 20-60-0 | 20-100-0 | 20-100-20 | Topdress 0-60-0 annu- ally for maintenance. |
| Peanuts | NR | NR | 0-60-0 | 0-60-0 | Topdress with 300 lb. gypsum just prior to bloom stage over peg zone on Virginia type only. |
| TRUCK CROPS | | | | | Sidedress with 60-0-0 when plants begin to head. |
| Lettuce, cabbage, turnip greens | 40-0-0 | 40-0-0 | 40-40-0 | 40-80-0 | |
| 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 | 1/2 at planting—1/2 in 60 days. |
| Irish potatoes | 0-0-0 | 40-40-0 | 40-80-0 | 80-80-0 | 1/2 at planting—1/2 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 can be applied prior to or at time of planting. Fertilizers are used more efficiently 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 also can 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 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 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 pasture, topdress with 30-0-0 as needed. Repeat basic fertilizer treatment annually as suggested or according to a soil test.