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RECOMMENDATIONS FOR THE USE OF THE APPROVED GRADES OF FERTILIZER FOR TEXAS IN 1943-44

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On account of the efficiency of American industry, much more nitrogen is available for use in fertilizers in 1943-44 than was available in 1942-43. For this reason, the 3-12-6 fertilizer used so extensively last season has been replaced by fertilizers containing more nitrogen, and some other changes have been made from the grades adopted last year.

The list of grades adopted by the War Food Administration for use in Texas in 1943-44 are 0-14-7, 4-10-0, 4-8-8, 4-12-4, 4-12-6, 5-10-5, 6-8-4; for Rio Grande Valley only, 6-12-0, 10-10-0; for Panhandle and West Texas only, 6-30-0, 10-20-0, 12-15-0.

The 5-10-5 has the same ratio of plant food as the 4-8-4, of which 34,732 tons were used in Texas in the season of 1941-42. Since the 5-10-5 is a more concentrated fertilizer, 400 pounds of 5-10-5 will furnish the same amounts of plant food as 500 pounds of 4-8-4. The use of the 24,000 tons of 5-10-5 in place of 30,000 tons of 4-8-4 would result in a saving of 120,000 bags and 6000 tons of transportation, which would be a substantial contribution to the war effort. The ratios of nitrogen to phosphoric acid to potash of 1:2:1 is generally the most suitable for crops in Texas. The use of the 5-10-5 fertilizer is therefore recommended strongly to such an extent as it can be purchased by those who have previously used 4-8-4, or where it is recommended but in the proportion of 200 pounds of 5-10-5 where 250 pounds of 4-8-4 was used. The 5-10-5 will also be sold as the Victory Garden fertilizer.

Ammonium nitrate is being sold to some extent. It contains 32.5% of nitrogen, which is practically twice the 16% nitrogen of nitrate of soda. It can be used in the same way as nitrate of soda, as a top dressing or otherwise, using half the amount recommended for nitrate of soda. It can also be used instead of sulphate of ammonia, at the rate of 100 lbs. instead of 160 pounds sulphate of ammonia. Special precautions should be taken

to keep ammonium nitrate dry, for easy distribution on the land. Producers are shipping ammonium nitrate in moisture repellant bags. To prevent the absorption of moisture, the bags should not be opened until the ammonium nitrate is to be used.

Ammonium nitrate or other fertilizer if possible should not be allowed to come in contact with the leaves of plants, since it may injure them. In case of lawns and pastures, it should be applied only when the leaves are dry.

Specialty fertilizers will be available to a limited extent in 1943-44 for use on lawns, golf courses, parks, cemeteries, wayside and non-commercial plantings of trees, shrubs and flowers.

Special care should be taken to save and utilize all possible materials which contain nitrogen or other plant food. Chicken manure, and other animal manures, meat and fish from the table, lawn clippings, organic residues from manufacturing processes and any other nitrogenous wastes should be saved and utilized as much as possible for fertilizer purposes. Legume plants which have the power to take nitrogen from the air, should also be grown where practical for soil improvement purposes.

Information regarding restrictions on the sale and use of fertilizers is contained in FPO Order 5 Revised, which can be obtained from the War Food Administration Ref. FPA 5, Washington, D. C.

Group A crops are given preference over Group B crops in delivery of fertilizer. Group A crops include peanuts, sugar beets for production of seed, hemp, beans, (dried snap, and lima) cabbage, carrots, onions, peas, Irish potatoes, sweet potatoes, sweet corn for processing only, tomatoes, and vegetable seeds. Group B includes all other crops.

The Texas Fertilizer committee has recommended grades from the approved list which it is believed will give satisfactory returns. The quantities which will give the best results will be different in different parts of the state and on farms in the same locality, according to the nature of the soils and their previous treatment. We recommend that the user of fertilizer from his own experience apply these recommendations to his own special conditions, in the endeavor to secure maximum production without waste of plant food.

Field Crops

Crop	Material	Pounds per acre
Alfalfa	Superphosphate 20%	200 to 400
On soils cultivated for many years	0-14-7	300 to 400
Corn		
After legume crops	Superphosphate 20%	100 to 200
Sandy loams	5-10-5, 4-12-4, or 6-8-4	200 to 400
Cotton		
Sandy loams	5-10-5, 4-12-4, or 6-8-4	300 to 400
Gulf Coast dark prairie soils	4-10-0	300 to 400
Gulf Coast sandy prairie soils	6-8-4	200 to 400
Where plants make excessive growth	Superphosphate 20%	200 to 400
After legume crop	Superphosphate 20%	200 to 300
Legume crops (winter growing)	Superphosphate 20%	100 to 200
On sandy soils	0-14-7	200 to 400
Oats and other small grains fall planted or other wise on sandy soil for grazing	Superphosphate 20% or 4-12-4, or 5-10-5	100 to 200
Pastures	Superphosphate 20%	200 to 400
On sandy soils and soils known to be deficient in potash	0-14-7 or 4-12-4	300 to 400
Peanuts (Group A crop)	Superphosphate 20% or 0-14-7 or 4-12-4	100 to 300
	4-10-0 or 4-12-4, or 6-8-4	200 to 400
Rice		
Sudan grass and grain sorghum where rainfall is 30 or more inches a year.	4-12-4 or 5-10-5 or 6-8-4	200 to 400
Sugar cane for syrup	4-12-4 or 6-8-4 or 5-10-5	300 to 400
Sweet sorghum for syrup	4-12-4 or 5-10-5 or 6-8-4	200 to 400

Vegetables — West Texas (irrigated)

Crop	Material	Pounds per acre
Onions (Group A crop)	10-20-0 or 12-15-0	200 to 400
Potatoes, white (Group A crop)	10-20-0 or 12-15-0	300 to 600
Other vegetables	10-20-0 or 12-15-0	200 to 600

Fruit and Vegetables — East Texas and Elsewhere Not Specified

Cucumber for processing	5-10-5	500 to 1000
Supplement	Nitrate of soda	100 to 200
Onions (Group A crop)	5-10-5, 4-12-4	400 to 800
	or 6-8-4	300 to 700
Potatoes, white (Group A crop)	5-10-5 or 4-12-4	300 to 600
On deep sand	4-12-6	300 to 600
Potatoes, sweet (Group A crop)	5-10-5 or 4-12-4 or 4-8-8	300 to 600
On deep sand	4-8-8	300 to 600
Tomatoes (Group A crop)	5-10-5 or 4-12-4	400 to 1000
Tomato per standard cold frame	5-10-5 or 4-12-4	50 to 100 lbs.
Vegetables not specified	5-10-5 or 4-12-4	300 to 400
Water melons	5-10-5 or 4-12-4	200 to 500
Home gardens	5-10-6	1 pound to 20 feet of row
Fruit trees and tung oil trees —applied to trees or to winter cover crops	5-10-5 or 4-12-4 or 6-8-4	400 to 600
Supplement in spring per tree	Nitrate of soda	1 to 2 lbs.

Fruit and Vegetables — Winter Garden — Laredo Area
Dimmitt, La Salle, Webb and Maverick Counties

Carrots (Group A crop)	6-12-0 or 6-8-4	300 to 500
Cucumbers	6-12-0	200 to 400
Onions (Group A crop)	6-12-0 or 6-8-4	400 to 900
Peppers	6-12-0	200 to 600
Potatoes, white (Group A crop)	6-12-0	300 to 600
Spinach	6-12-0	200 to 500
Tomatoes (Group A crop)	6-12-0 or 6-8-4	300 to 600
Vegetables not specified	6-12-0 or 6-8-4	300 to 600

Fruits and Vegetables — Lower Rio Grande Valley

Beans (Group A crop)	6-12-0	200 to 300
Beets	10-10-0	200 to 300
Broccoli	10-10-0	300 to 400
Cabbage (Group A crop)	10-10-0	300 to 400
Carrots (Group A crop)	10-10-0	200 to 300
Collards	10-10-0	300 to 400
Corn (sweet) (Group A crop when grown for processing)	6-12-0 or	200 to 500
	Ammonium nitrate*	50 to 100
Cucumbers	4-12-4	400 to 600
Eggplant-Peppers	4-12-4	300 to 500
Endive	Ammonium nitrate*	50 to 100
Kale	Ammonium nitrate*	50 to 100
Lettuce	Ammonium nitrate*	50 to 100
Melons	4-12-4	400 to 600
Mustard greens	Ammonium nitrate*	50 to 100
Okra	Ammonium nitrate*	50 to 100
Onions (Group A crop)	6-12-0	400 to 800
Parsley	Ammonium nitrate*	50 to 100
Peas (Group A crop)	Superphosphate 20%	300 to 400
Potatoes, Irish, (Group A crop)	6-12-0	600 to 700
Potatoes on depleted land	10-10-0, or	400 to 500
	Ammonium nitrate*	140 to 200
Spinach	Ammonium nitrate*	50 to 100
Squash	6-12-0	200 to 300
Sweet potatoes (Group A crop)	4-12-4	300 to 600
Swiss chard	10-10-0	200 to 300
Tomatoes (Group A crop)	6-12-0 or	400 to 600
	4-12-4**	600 to 800
Turnips	Nitrate of soda*	100 to 200
Grapefruit	Ammonium nitrate* or	200 to 300
	Sulphate of ammonia* or	250 to 300
	Nitrate of soda, or	300 to 400
	10-10-0	500 to 600
Oranges	Ammonium nitrate* or	200 to 300
	Sulphate of ammonia* or	350 to 400
	Nitrate of soda	450 to 500
	10-10-0	700 to 800

*Sodium nitrate may replace ammonium nitrate, two pounds of sodium nitrate replacing one pound of ammonium nitrate.

**For tomatoes a side dressing of nitrate of soda at 100 to 200 pounds per acre may be desirable in addition to the mixed fertilizer.