

## Appendix B, Protective Rate Tables for Application of Commercial Fertilizers

Table 1- Protective rate of commercial P fertilizer for grasses and clover. Values in lbs  $P_2O_5$ /acre.

	<b>Low soil test p (0-50 lbs/acre)</b>	<b>Med. Soil test P (50-100 lbs/acre)</b>	<b>High soil test P (&gt;100 lbs/acre)</b>	<b>Soil test P not known</b>
Fertilizer application rate (lbs $P_2O_5$ /acre)	80	40	0	0

Table 2- Protective Rate of Commercial Phosphate Fertilizer for Row Crops (in lbs  $P_2O_5$ /acre).  
Commercial P fertilizer should not be applied if soil test P is unknown.

<b>Crop</b>	<b>Low Soil Test P 0-50 lbs P/acre</b>	<b>Medium Soil Test P 50-100 lbs P/acre</b>	<b>High Soil Test P &gt;100 lbs P/acre</b>
Corn	80	50	0
Cotton	60	30	0
Grain Sorghum	60	40	0
Rice	40	0	0
Soybeans	40	0	0
Wheat	60	30	0

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Table 3- Protective Rate of Commercial Phosphate Fertilizer for Fruits and Vegetables (in lbs  $P_2O_5$ /acre). Commercial P fertilizer should not be applied if soil test P is unknown.

<b>Crop</b>	<b>Low Soil Test P 0-50 lbs P/acre</b>	<b>Medium Soil Test P 50-100 lbs P/acre</b>	<b>High Soil Test P &gt;100 lbs P/acre</b>
Sweet Corn	80	40	0
Irish Potatoes	80	40	0
Tomatoes	80	60	0
Okra, Eggplant, Peppers, Cabbage, Broccoli, and Cauliflower	80	60	0
Sweet Potatoes	80	80	0
Watermelon, Cantaloupe, Squash, and Pumpkins	60	50	0
Cucumbers	80	70	0
Spinach, Collards, Mustard Greens, Kale, and Turnip Greens	60	60	0
Snapbeans	90	45	0
Pole Beans, Lima Beans, Dry Beans, and English Peas	80	40	0

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Table 3- (Continued) Protective Rate of Commercial Phosphate Fertilizer for Fruits and Vegetables (in lbs P<sub>2</sub>O<sub>5</sub>/acre). Commercial P fertilizer should not be applied if soil test P is unknown.

Southern or Summer Peas	80	40	0
Grapes	80	30	0
Strawberries	90	90	0
Blackberries and Raspberries	60	30	0
Blueberries	60	0	0

Table 4- Protective Rate of Commercial Phosphate Fertilizer for Trees and Ornamentals (in lbs P<sub>2</sub>O<sub>5</sub>/acre). Commercial P fertilizer should not be applied if soil test P is unknown.

<b>Crop</b>	<b>Low Soil Test P 0-50 lbs P/acre</b>	<b>Medium Soil Test P 50-100 lbs P/acre</b>	<b>High Soil Test P &gt;100 lbs P/acre</b>
Fruit Trees - Pears, Cherries, Apples, Peaches, Plums and Figs	0.3 lbs P <sub>2</sub> O <sub>5</sub> /tree	0	0
Pecans and Walnuts	80	40	0
Pine Nursery Seedlings	60	30	0
Christmas Trees	50	0	0
Ornamentals	50	50	0

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Table 5- Protective rate for commercial P fertilizer for grasses and legumes. Values are in lbs product/acre.

<b>Fertilizer Type</b>	<b>Low soil test P (0-50 lbs/acre)</b>	<b>Med. Soil test P (50-100 lbs/acre)</b>	<b>High soil test P (&gt;100bs/acre)</b>	<b>Soil test P not known</b>
0-46-0	175	88	0	0
13-13-13	600	300	0	0
10-20-10	400	200	0	0
Miracle Grow (20-27-5)	300	150	0	0
Scott's weed And Feed (28-3-3)	Base rate on nitrogen needs	Base rate on nitrogen needs	0	0

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Table 6— Protective rate for commercial N fertilizer. Values in lbs/acre.

<b>Forage type</b>	<b>Low soil test P (0-50 lbs/acre)</b>	<b>Med. Soil test P (50-100 lbs/acre)</b>	<b>High soil test P (&gt;100 lbs/acre)</b>	<b>Additional applications</b>
Warm season grasses	80	80	80	Add 50-60 lbs N/acre as needed
Cool season grasses	45	45	50	Add 50-60 lbs N/acre as needed
Improved warm season pastures	45	45	50	Add 50-60 lbs N/acre as needed
Alfalfa	0	0	0	
Warm season grass/clover	0	0	0	Add 80 lbs N/acre when clover is dormant
Cool season grass/clover	60	60	60	
Cool season grass on warm season grass	60	60	60	Add 60-80 lbs N/acre as needed
Warm season Perennial legume	0	0	0	

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Table 7– Protective rate for commercial N fertilizer. Values in lbs/acre.

Forage type	N Rate	Additional application
Warm season grasses	80	Add 50-60 lbs N/acre as needed
Cool season grasses	45	Add 50-60 lbs N/acre as needed
Improved warm season pastures	45	
Alfalfa	0	
Warm season grass/clover	0	Add 80 lbs N/acre when clover is dormant
Cool season grass/clover	60	
Cool season grass on warm season grass	60	Add 60-80 lbs N/acre as needed
Warm season perennial legume	0	

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Table 8- Protective Rate of Commercial Nitrogen Fertilizer for Row Crops (in lbs N/acre).

<b>Crop</b>	<b>lbs N/acre</b>	<b>Comments</b>
Corn	120	Based on yield of 125 bushels/acre; increase N rate by 30 lbs/acre for each 25 bushel increase in yield
Cotton	100	Reduce N rate if soil nitrate levels are high based on University of Arkansas recommendations
Grain Sorghum	100	Increase rate by 30 lbs/acre when yields are greater than 6,000 lbs/acre or when irrigated
Rice	75-150	Adjust N rates according to variety grown and crop rotation as recommended by University of Arkansas.
Soybeans	0	
Wheat	90	

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Table 9- Protective Rate of Commercial Nitrogen Fertilizer for Fruits and Vegetables (in lbs N/acre).

<b>Crop</b>	<b>lbs N/acre</b>	<b>Comments</b>
Sweet Corn	50	Sidedress 50 lbs N/acre when plants are 12"
Irish Potatoes	50	Sidedress 40 lbs N/acre when plants are 6"
Tomatoes	40	Sidedress 30 lbs N/acre when fruit set begins
Okra, Eggplant, Peppers, Cabbage, Broccoli, and Cauliflower	40	Sidedress 30 lbs N/acre when appropriate
Sweet Potatoes	40	
Watermelon, Cantaloupe, Squash, and Pumpkins	30	Sidedress 30 lbs N/acre at flowering
Cucumbers	40	Sidedress 40 lbs N/acre when vines start to run
Spinach, Collards, Mustard Greens, Kale, and Turnip Greens	30	Sidedress 30 lbs N/acre after stand is assured
Snapbeans	30	



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Table 9- (Continued) Protective Rate of Commercial Nitrogen Fertilizer for Fruits and Vegetables (in lbs N/acre).

Pole Beans, Lima Beans, Dry Beans, and English Peas	20	
Southern or Summer Peas	20	
Grapes	30	Sidedress additional 30 lbs N/acre each month during the growing season, as needed
Strawberries	90	
Blackberries                      and Raspberries	30	Sidedress 30 lbs N/acre following harvest
Blueberries	60	Apply additional 30-60 lbs N/acre/year when plants are 3 to 4 years old, as needed

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Table 10- Protective Rate of Commercial Nitrogen Fertilizer for Trees and Ornamentals (in lbs N/acre).

Crop	lbs N/acre
Fruit Trees - Pears, Cherries, Apples, Peaches, Plums and Figs	0.3 lbs N/tree
Pecans and Walnuts	40
Pine Nursery Seedlings	30
Christmas Trees	20
Ornamentals	25