

BEES Info #100

Lime and Fertilizer Recommendations
for the Various Crops of Tennessee

Chapter IV
Commercial Vegetable/Root Crop Production

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Computer Codes

1. BEAN

BEANS (SNAP OR LIMA)

Soil Test Recommendations for N, P₂O₅ and K₂O (Pounds Per Acre)

Practice	Nitrogen	Phosphate (P ₂ O ₅)				Potash (K ₂ O)				Notes	
	Soil Test Levels*										
	(NT)	L	M	H	V	L	M	H	V		
1. Establishment	45	90	60	30	0	60	30	0	0	1,2	

*NT = Not Tested L = Low M = Medium H = High V = Very High

Notes: Lime requirements from Lime Chart 3

1. Use only 15 pounds of nitrogen per acre when a Blue Lake variety of snapbeans is used.
2. Apply two pounds of zinc per acre when zinc tests deficient. If zinc is not tested, apply two pounds of zinc per acre when soil pH is above 6.0 or anytime lime is applied.

Computer Codes

1. BROCC

BROCCOLI OR CAULIFLOWER

Soil Test Recommendations for N, P₂O₅ and K₂O (Pounds Per Acre)

Practice	Nitrogen	Phosphate (P ₂ O ₅)				Potash (K ₂ O)				Notes	
	Soil Test Levels*										
	(NT)	L	M	H	V	L	M	H	V		
1. Establishment	90	90	60	30	0	90	60	30	0	1,2	

*NT = Not Tested L = Low M = Medium H = High V = Very High

Notes: Lime requirements from Lime Chart 2

1. Apply an additional 30 pounds of nitrogen per acre as a sidedressing 3-4 weeks after planting.
2. Apply two pounds of Boron per acre at planting.

Computer Codes

1. CAB

CABBAGE

Soil Test Recommendations for N, P₂O₅ and K₂O (Pounds Per Acre)

Practice	Nitrogen	Phosphate (P ₂ O ₅)				Potash (K ₂ O)				Notes	
	Soil Test Levels*										
	(NT)	L	M	H	V	L	M	H	V		
1. Establishment	90	90	60	30	0	180	90	30	0	1,2	

*NT = Not Tested L = Low M = Medium H = High V = Very High

Notes: Lime recommendations from Lime Chart 2

1. Apply an additional 30 pounds of nitrogen per acre as a sidedressing when heads begin to form.
2. Apply two pounds of Boron per acre at planting.

Computer Codes

1. VC

(VINE CROPS) CUCURBITS, CANTALOUPE,
 CUCUMBERS, SQUASH, PUMPKIN, WATERMELONS
Soil Test Recommendations for N, P₂O₅ and K₂O (Pounds Per Acre)

Practice	Nitrogen	Phosphate (P ₂ O ₅)				Potash (K ₂ O)				Notes	
	Soil Test Levels*										
	(NT)	L	M	H	V	L	M	H	V		
1. Establishment	30-40	90	45	0	0	60	30	0	0	1,2	

*NT = Not Tested L = Low M = Medium H = High V = Very High

Notes: Lime recommendations from Lime Chart 2

1. Apply an additional 15-30 pounds of nitrogen per acre when runners are 12 inches long or at early bloom.
2. If cantaloupes, cucumbers or squash are being grown on plastic with fertigation, apply all of the recommended phosphate and 1/2 of the recommended nitrogen and potash prior to laying the plastic. Distribute the remaining nitrogen and potash in weekly intervals over the remainder of the growing season (4 to 6 weeks).

Computer Codes

1. GIN

GINSENG

Soil Test Recommendations for N, P₂O₅ and K₂O (Pounds Per Acre)

Practice	Nitrogen	Phosphate (P ₂ O ₅)				Potash (K ₂ O)				Notes	
	Soil Test Levels*										
	(NT)	L	M	H	V	L	M	H	V		
1. Establishment	30	90	60	30	0	180	120	60	0	1	

*NT = Not Tested L = Low M = Medium H = High V = Very High

Notes: Lime recommendations from Lime Chart 3

1. No additional nitrogen needed as a sidedressing.

Computer Codes

1. GREEN

GREENS

Soil Test Recommendations for N, P₂O₅ and K₂O (Pounds Per Acre)

Practice	Nitrogen	Phosphate (P ₂ O ₅)				Potash (K ₂ O)				Notes	
	Soil Test Levels*										
	(NT)	L	M	H	V	L	M	H	V		
1. Establishment	60	120	80	40	0	80	40	0	0	1	

*NT = Not Tested L = Low M = Medium H = High V = Very High

Notes: Lime recommendations from Lime Chart 2

1. Apply an additional 30 pounds of nitrogen per acre after each cutting.

Computer Codes

1. OK

OKRA

Soil Test Recommendations for N, P₂O₅ and K₂O (Pounds Per Acre)

Practice	Nitrogen	Phosphate (P ₂ O ₅)				Potash (K ₂ O)				Notes	
	Soil Test Levels*										
	(NT)	L	M	H	V	L	M	H	V		
1. Establishment	15-30	90	60	30	0	90	60	30	0	1	

*NT = Not Tested L = Low M = Medium H = High V = Very High

Notes: Lime recommendations from Lime Chart 2

1. Apply an additional 30 pounds of nitrogen per acre after the first picking.

Computer Codes

1. PEAS

PEAS (SOUTHERN)

Soil Test Recommendations for N, P₂O₅ and K₂O (Pounds Per Acre)

Practice	Nitrogen	Phosphate (P ₂ O ₅)				Potash (K ₂ O)				Notes	
	Soil Test Levels*										
	(NT)	L	M	H	V	L	M	H	V		
1. Establishment	0-30	90	60	30	0	60	30	0	0	1	

*NT = Not Tested L = Low M = Medium H = High V = Very High

Notes: Lime recommendations from Lime Chart 2

1. When phosphorus or potassium is low, use 30 pounds of nitrogen at planting. If both phosphorus and potassium are medium or above, do not use nitrogen.

Computer Codes

1. PEP

PEPPERS

Soil Test Recommendations for N, P₂O₅ and K₂O (Pounds Per Acre)

Practice	Nitrogen	Phosphate (P ₂ O ₅)				Potash (K ₂ O)				Notes	
	Soil Test Levels*										
	(NT)	L	M	H	V	L	M	H	V		
1. Establishment	50	100	80	60	0	100	80	60	0	1,2	

*NT = Not Tested L = Low M = Medium H = High V = Very High

Notes: Lime recommendations from Lime Chart 3. Use note 3 only as indicated.

- Sidedress with an additional 30 pounds of nitrogen per acre when first fruits are one inch in diameter. OMIT sidedressing when pepper is grown in rotation with or follows crops receiving high levels of nitrogen.
- If Bell pepper is being grown on plastic with fertigation, apply all of the recommended phosphate and 1/2 of the recommended nitrogen and potash prior to installing the plastic. Apply the remaining recommended levels of nitrogen and potash in weekly intervals over the remainder of the growing season (8-12 weeks).

Use Note 3 only as indicated in the note.

- [Note 3 is used only when the calcium test indicates a need for calcium] Apply 500 pounds calcium sulfate (gypsum) per acre when the water pH is 6.1 or above. If water pH is less than 6.1 apply lime as recommended and omit the calcium sulfate.

Computer Codes

1. IPOT

POTATOES

(IRISH)

Soil Test Recommendations for N, P₂O₅ and K₂O (Pounds Per Acre)

Practice	Nitrogen	Phosphate (P ₂ O ₅)				Potash (K ₂ O)				Notes	
	Soil Test Levels*										
	(NT)	L	M	H	V	L	M	H	V		
1. Establishment	120	240	120	60	0	240	120	60	0		

*NT = Not Tested L = Low M = Medium H = High V = Very High

Notes: Lime recommendations from Lime Chart 8.

Computer Codes

1. SPOT

POTATOES

(SWEET)

Soil Test Recommendations for N, P₂O₅ and K₂O (Pounds Per Acre)

Practice	Nitrogen	Phosphate (P ₂ O ₅)				Potash (K ₂ O)				Notes	
	Soil Test Levels*										
	(NT)	L	M	H	V	L	M	H	V		
1. Establishment	45-60	150	100	50	0	150	100	50	0	1	

*NT = Not Tested L = Low M = Medium H = High V = Very High

Notes: Lime recommendations from Lime Chart 3

1. Broadcast recommended fertilizer before ridging.

Computer Codes

1. SWC

SWEET CORN

Soil Test Recommendations for N, P₂O₅ and K₂O (Pounds Per Acre)

Practice	Nitrogen	Phosphate (P ₂ O ₅)				Potash (K ₂ O)				Notes	
	Soil Test Levels*										
	(NT)	L	M	H	V	L	M	H	V		
1. Establishment	90	100	50	25	0	100	50	25	0	1	

*NT = Not Tested L = Low M = Medium H = High V = Very High

Notes: Lime recommendations from Lime Chart 2. Use notes 2 and 3 only as indicated.

1. Apply an additional 30 pounds of nitrogen per acre as a sidedressing when plants are 12-18 inches tall.

Use notes 2 and 3 only as indicated in the note.

2. Apply five pounds of zinc (approximately 15 pounds zinc sulfate) per acre just prior to planting. [Note 2 is used only when the zinc test indicates a need for zinc].
3. If zinc was not tested, apply five pounds of zinc (approximately 15 pounds zinc sulfate) per acre when soil pH is 6.1 or above and phosphorus is high or anytime lime is applied or anywhere zinc deficiencies were observed the previous year. [Note 3 is used for the following counties when the zinc test is not requested: Bedford, Cannon, Coffee, Cumberland, Davidson, DeKalb, Fentress, Franklin, Giles, Grundy, Jackson, Lincoln, Macon, Maury, Moore, Morgan, Overton, Pickett, Putnam, Robertson, Smith, Sumner, Trousdale, Warren, Williamson and Wilson].

Computer Codes

1. TOM

TOMATOES

Soil Test Recommendations for N, P₂O₅ and K₂O (Pounds Per Acre)

Practice	Nitrogen	Phosphate (P ₂ O ₅)				Potash (K ₂ O)				Notes	
	Soil Test Levels*										
	(NT)	L	M	H	V	L	M	H	V		
1. Establishment	60	240	120	60	0	240	120	60	0	1,2	

*NT = Not Tested L = Low M = Medium H = High V = Very High

Notes: Lime recommendations from Lime Chart 2. Use notes 3 and 4 only as indicated.

1. Apply an additional 30 pounds of nitrogen per acre as a sidedressing when first fruits are one inch in diameter and continue at 4-week intervals during picking.
2. If tomatoes are being grown on plastic with fertigation, apply all of the recommended phosphate and 1/2 of the recommended nitrogen and potash prior to installing the plastic. Apply the remaining recommended levels of nitrogen and potash in weekly intervals over the remainder of the growing season (8-12 weeks).

Use Notes 3 and 4 only as indicated in the note.

3. [Note 3 is used only when the calcium test indicates a need for calcium]. Apply 500 pounds calcium sulfate (gypsum) per acre when the water pH is 6.1 or above. If the water pH is less than 6.1 apply lime as recommended and omit the calcium sulfate.
4. [Note 4 is used only when the magnesium test indicates a need for magnesium]. Apply 20 pounds of magnesium per acre using magnesium sulfate or potassium magnesium sulfate. If lime is needed, dolomitic limestone is recommended as the magnesium source since it can be used to correct both low magnesium and soil acidity.