

# Fertilizer Recommendations by Crops, Categorized

(Crop codes in parentheses)

## I Field Crops

1. (701) Canola Spring Type
2. (702) Canola Winter Type
3. (001) Corn (for Grain) Dryland
4. (002) Corn (for Grain) Irrigated
5. (003) Corn Silage
6. (500) Cotton - 750 lbs yield goal
7. (501) Cotton - 1000 lbs yield goal
8. (502) Cotton - 1250 lbs yield goal
9. (503) Cotton - 1500 lbs yield goal
10. (006) Grain Sorghum
27. (KEN) Kenaf
11. (010) Peanuts
12. (013) Small Grain - Barley
13. (012) Small Grain - Oats
14. (014) Small Grain - Rye for Seed Production or Cover Crop
15. (011) Small Grain - Wheat
16. (711) Small Grain Silage
17. (004) Sorghum Silage
18. (017) Soybeans
19. (008) Sugar Cane
20. (009) Sunflower
21. (007) Sweet Sorghum
22. (019) Tobacco (Average Pebble Soil)
23. (018) Tobacco (Low Moisture and Sandy Soils)
24. (020) Tobacco Plant Bed
28. (TRU) Truffles
25. (015) Wheat - Grain Sorghum Rotation
26. (016) Wheat - Soybean Rotation

## II Pastures, Hay Crops

1. (025) Alfalfa-Establishment
2. (026) Alfalfa-Maintenance
4. (032) Annual Lespedeza
30. (027) Arrowleaf Clover (Apache, Yuchi, Amclo, Mechee)
5. (046) Bahia Grass Pasture
6. (042) Brown Top Millet
7. (035) Coastal Bermuda Pasture
8. (037) Coastal Bermuda-Hay
9. (045) Common Bermuda Pasture
10. (030) Crimson Clover
11. (047) Dallis Grass Pasture
12. (740) Fescue Hay
13. (040) Fescue Pasture
14. (039) Fescue-Clover Associations
15. (742) Forage Chicory
16. (036) Hybrid Bermudas - Pasture

## II Pastures, Hay Crops (cont.)

17. (038) Hybrid Bermudas-Hay
18. (043) Hybrid Millets
19. (033) Lupine
21. (041) Orchard Grass Pasture
22. (051) Perennial Peanuts
23. (048) Sericea
24. (044) Sorghum Sudan Hybrids
25. (031) Subterranean Clover
26. (049) Summer Perennials Overseeded in Fall
31. (SGB) Switchgrass and other native grasses-Biomass and forage
32. (SGW) Switchgrass and other native grasses-Wildlife
27. (050) Temporary Winter Grazing
28. (034) Vetch
29. (741) White Clover

## III Pine Trees, Field Nursery Stock, and Christmas Trees

1. (078) Christmas Trees - Cedar
2. (077) Christmas Trees - Pine and Leyland Cypress
3. (075) Field Nursery - Broadleaf Evergreen (production)
4. (074) Field Nursery - Deciduous Trees & Shrubs (production)
5. (071) Field Nursery - Deciduous Trees (pre-plant)
6. (073) Field Nursery - Evergreens (pre-plant)
7. (076) Field Nursery - Narrow Leaf Evergreen (production)
8. (072) Field Nursery - Shrubs (pre-plant)
9. (069) Pine Plantation - Establishment
10. (070) Pine Plantation - Maintenance
11. (068) Pine Seedling Nursery

## IV Fruits and Pecans

1. (115) Apples (bearing)
2. (117) Apples (non-bearing)
3. (131) Blackberries (commercial)
4. (126) Blueberries-Rabbiteye (commercial)
5. (134) Blueberries-Southern Highbush in Pinebark Beds
6. (133) Blueberries-Southern Highbush in Soil or Amended Soil
7. (129) Figs (commercial)
8. (127) Grapes (bunch, hybrid)
9. (128) Grapes (muscadine)

#### IV Fruits and Pecans (cont.)

10. (119) Nectarines (bearing)
11. (122) Nectarines (non-bearing)
12. (120) Peaches (bearing)
13. (123) Peaches (non-bearing)
14. (116) Pears (bearing)
15. (118) Pears (non-bearing)
16. (125) Pecans
17. (121) Plums (bearing)
18. (124) Plums (non-bearing)
19. (132) Raspberries (commercial)
20. (130) Strawberries-Plasticulture

#### V Vegetables

1. (140) Asparagus
2. (165) Basil (and other herbs not listed)
3. (144) Beets
4. (146) Broccoli, fresh market
5. (147) Cabbage, fresh market
6. (160) Cantaloupes
7. (145) Carrots
8. (148) Cauliflower, fresh market
9. (185) Chives
10. (184) Cilantro
11. (149) Collards, fresh market
12. (159) Cucumbers
13. (164) Eggplant
14. (183) Endive
15. (173) English Peas
16. (180) Greenhouse Tomatoes
17. (177) Irish Potatoes
18. (150) Kale, fresh market
19. (154) Lettuce, fresh market
20. (142) Lima Beans
21. (151) Mustard, fresh market
22. (170) Okra
23. (171) Onions (green bunching)
24. (172) Onions (mature and dry)
25. (169) Onions (plantbed)
26. (166) Parsley
27. (175) Pepper (Bell and Pimento)
28. (176) Pepper Transplants
29. (143) Pole Beans
30. (162) Pumpkin
31. (167) Radishes
32. (168) Rhubarb
33. (141) Snap Beans
34. (174) Southern Peas
35. (152) Spinach, fresh market
36. (161) Squash

#### V Vegetables (cont.)

37. (181) Staked Tomatoes
38. (158) Sweet Corn
39. (178) Sweet Potatoes
40. (182) Tomato Transplants
41. (153) Turnips, fresh market
42. (163) Watermelon

#### VI Sod Production

1. (769) Sod Production Centipede
2. (768) Sod Production Hybrid Bermudas
3. (771) Sod Production St. Augustine
4. (772) Sod Production Tall Fescue
5. (770) Sod Production Zoysia

#### VII Ornamentals and Flowers (nursery field production)

1. (887) Annual Flowers (commercial)
2. (880) Azaleas (commercial)
3. (882) Camellias (commercial)
4. (883) General Ornamental Shrubs (commercial)
5. (884) Ground Cover (commercial)
6. (885) Ornamental Trees (commercial)
7. (888) Perennial Flowers (commercial)
8. (881) Rhododendrons (commercial)
9. (890) Roses (commercial)
10. (886) Shade Trees (commercial)
11. (891) Spring Flowering Bulbs (commercial)
12. (889) Summer Bulbs (commercial)

#### VIII Home Lawns

1. (CLE) Centipede Lawn - Establishment
2. (CLM) Centipede Lawn - Maintenance
3. (052) Common Bermuda Lawn
4. (059) Cool Season Grass Mixtures
5. (053) Hybrid Bermuda Lawn
6. (057) Kentucky Bluegrass
7. (060) Ryegrass for Overseeding Lawns
8. (SSP) Seashore Paspalum
9. (055) St. Augustine Lawn
10. (058) Tall Fescue Lawn
11. (056) Zoysia Lawn

#### IX Golf Courses

1. (061) Bentgrass Golf Greens
2. (062) Bermuda Golf Greens (Overseeded)
3. (063) Golf Fairways
4. (064) Golf Tees

#### X Industrial/Business Lawns

1. (790) Industrial/Business Lawns - Bermuda

## X Industrial/Business Lawns (cont.)

2. (BCE) Industrial/Business Lawns - Centipede Establishment
3. (BCM) Industrial/Business Lawns - Centipede Maintenance
4. (792) Industrial/Business Lawns - St. Augustine
5. (794) Industrial/Business Lawns - Tall Fescue
6. (793) Industrial/Business Lawns - Zoysia

## XI Other Turf

1. (065) Athletic Field
2. (066) Roadside Turf - Establishment
3. (067) Roadside Turf - Maintenance

## XII Home Landscape Plants

1. (087) Annual Flowers
2. (080) Azaleas
3. (082) Camellias
4. (083) General Ornamental Shrubs
5. (092) Goldenseal
6. (084) Ground Cover
7. (085) Ornamental Trees
8. (088) Perennial Flowers
9. (081) Rhododendrons
10. (090) Roses
11. (086) Shade Trees
12. (091) Spring Flowering Bulbs
13. (089) Summer Bulbs

## XIII Home Garden

1. (095) Apples - Home Garden
2. (096) Blackberries - Home Garden
3. (098) Blueberries-Home Garden
4. (099) Bunch Grapes - Home Garden
5. (100) Citrus - Home Garden
6. (101) Figs - Home Garden
7. (114) Herbs (homeowner)
8. (112) Home Vegetable Garden
9. (102) Kiwifruit - Home Garden
10. (103) Muscadine - Home Garden
11. (104) Nectarines - Home Garden
12. (105) Peaches - Home Garden
13. (107) Pears - Home Garden
14. (109) Pecans (bearing) - Home Garden
15. (108) Pecans (young trees) - Home Garden
16. (106) Plums - Home Garden
17. (097) Raspberries - Home Garden
18. (110) Strawberries - Home Garden

## XIV Wildlife Plots (cont.)

2. (w12) Dove Fields - Corn or Grain Sorghum
3. (w11) Dove Fields - Peredovic Sunflower
4. (w09) Fall Deer - Alfalfa
5. (w08) Fall Deer - Forage Chicory
6. (w05) Fall Deer Mix - Brassicas
7. (w04) Fall Deer Mix - Cool season annual grasses
8. (w06) Fall Deer Mix - Cool Season Grasses with Clover
9. (w07) Fall Deer Mix - Legumes
10. (w02) Summer Deer Mix (Grass only)
11. (w01) Summer Deer Mix (Legume only)
12. (w03) Summer Deer Mix (Legumes and Grass)
13. (191) Wildlife Plots - Chufa
14. (190) Wildlife Plots - Temporary Winter Grazing

## XIV Wildlife Plots

1. (w10) Dove Fields - Brown Top Millet, Proso, Sesame, and Buckwheat

## Fertilizer Recommendations by Crops, Alphabetized

(Crop codes in parentheses)

- II-1. (025) Alfalfa-Establishment
- II-2. (026) Alfalfa-Maintenance
- XII-1. (087) Annual Flowers
- VII-1. (887) Annual Flowers (commercial)
- II-4. (032) Annual Lespedeza
- XIII-1. (095) Apples - Home Garden
- IV-1. (115) Apples (bearing)
- IV-2. (117) Apples (non-bearing)
- II-30. (027) Arrowleaf Clover (Apache, Yuchi, Amclo, Mechee)
- V-1. (140) Asparagus
- XI-1. (065) Athletic Field
- XII-2. (080) Azaleas
- VII-2. (880) Azaleas (commercial)
- II-5. (046) Bahia Grass Pasture
- V-2. (165) Basil (and other herbs not listed)
- V-3. (144) Beets
- IX-1. (061) Bentgrass Golf Greens
- IX-2. (062) Bermuda Golf Greens (Overseeded)
- XIII-2. (096) Blackberries - Home Garden
- IV-3. (131) Blackberries (commercial)
- XIII-3. (098) Blueberries-Home Garden
- IV-4. (126) Blueberries-Rabbiteye (commercial)
- IV-5. (134) Blueberries-Southern Highbush in Pinebark Beds
- IV-6. (133) Blueberries-Southern Highbush in Soil or Amended Soil
- V-4. (146) Broccoli, fresh market
- II-6. (042) Brown Top Millet
- XIII-4. (099) Bunch Grapes - Home Garden
- V-5. (147) Cabbage, fresh market
- XII-3. (082) Camellias
- VII-3. (882) Camellias (commercial)
- I-1. (701) Canola Spring Type
- I-2. (702) Canola Winter Type
- V-6. (160) Cantaloupes
- V-7. (145) Carrots
- V-8. (148) Cauliflower, fresh market
- VIII-1. (CLB) Centipede Lawn - Establishment
- VIII-2. (CLM) Centipede Lawn - Maintenance
- V-9. (185) Chives
- III-1. (078) Christmas Trees - Cedar
- III-2. (077) Christmas Trees - Pine and Leyland Cypress
- V-10. (184) Cilantro
- XIII-5. (100) Citrus - Home Garden
- II-7. (035) Coastal Bermuda Pasture
- II-8. (037) Coastal Bermuda-Hay
- V-11. (149) Collards, fresh market
- VIII-3. (052) Common Bermuda Lawn
- II-9. (045) Common Bermuda Pasture
- VIII-4. (059) Cool Season Grass Mixtures
- I-3. (001) Corn (for Grain) Dryland
- I-4. (002) Corn (for Grain) Irrigated
- I-5. (003) Corn Silage
- I-6. (500) Cotton - 750 lbs yield goal
- I-7. (501) Cotton - 1000 lbs yield goal
- I-8. (502) Cotton - 1250 lbs yield goal
- I-9. (503) Cotton - 1500 lbs yield goal
- II-10. (030) Crimson Clover
- V-12. (159) Cucumbers
- II-11. (047) Dallis Grass Pasture
- XIV-1. (w10) Dove Fields - Brown Top Millet, Proso, Sesame, and Buckwheat
- XIV-2. (w12) Dove Fields - Corn or Grain Sorghum
- XIV-3. (w11) Dove Fields - Peredovic Sunflower
- V-13. (164) Eggplant
- V-14. (183) Endive
- V-15. (173) English Peas
- XIV-4. (w09) Fall Deer - Alfalfa
- XIV-5. (w08) Fall Deer - Forage Chicory
- XIV-6. (w05) Fall Deer Mix - Brassicas
- XIV-7. (w04) Fall Deer Mix - Cool season annual grasses
- XIV-8. (w06) Fall Deer Mix - Cool Season Grasses with Clover
- XIV-9. (w07) Fall Deer Mix - Legumes
- II-12. (740) Fescue Hay
- II-13. (040) Fescue Pasture
- II-14. (039) Fescue-Clover Associations
- III-3. (075) Field Nursery - Broadleaf Evergreen (production)
- III-4. (074) Field Nursery - Deciduous Trees & Shrubs (production)
- III-5. (071) Field Nursery - Deciduous Trees (pre-plant)
- III-6. (073) Field Nursery - Evergreens (pre-plant)
- III-7. (076) Field Nursery - Narrow Leaf Evergreen (production)
- III-8. (072) Field Nursery - Shrubs (pre-plant)
- XIII-6. (101) Figs - Home Garden
- IV-7. (129) Figs (commercial)
- II-15. (742) Forage Chicory
- XII-4. (083) General Ornamental Shrubs
- VII-4. (883) General Ornamental Shrubs (commercial)
- XII-5. (092) Goldenseal
- IX-3. (063) Golf Fairways
- IX-4. (064) Golf Tees
- I-10. (006) Grain Sorghum
- IV-8. (127) Grapes (bunch, hybrid)

- IV-9. (128) Grapes (muscadine)
- V-16. (180) Greenhouse Tomatoes
- XII-6. (084) Ground Cover
- VII-5. (884) Ground Cover (commercial)
- XIII-7. (114) Herbs (homeowner)
- XIII-8. (112) Home Vegetable Garden
- VIII-5. (053) Hybrid Bermuda Lawn
- II-16. (036) Hybrid Bermudas - Pasture
- II-17. (038) Hybrid Bermudas-Hay
- II-18. (043) Hybrid Millets
- X-1. (790) Industrial/Business Lawns - Bermuda
- X-2. (BCE) Industrial/Business Lawns - Centipede Establishment
- X-3. (BCM) Industrial/Business Lawns - Centipede Maintenance
- X-4. (792) Industrial/Business Lawns - St. Augustine
- X-5. (794) Industrial/Business Lawns - Tall Fescue
- X-6. (793) Industrial/Business Lawns - Zoysia
- V-17. (177) Irish Potatoes
- V-18. (150) Kale, fresh market
- I-27. (KEN) Kenaf
- VIII-6. (057) Kentucky Bluegrass
- XIII-9. (102) Kiwifruit - Home Garden
- V-19. (154) Lettuce, fresh market
- V-20. (142) Lima Beans
- II-19. (033) Lupine
- XIII-10. (103) Muscadine - Home Garden
- V-21. (151) Mustard, fresh market
- XIII-11. (104) Nectarines - Home Garden
- IV-10. (119) Nectarines (bearing)
- IV-11. (122) Nectarines (non-bearing)
- V-22. (170) Okra
- V-23. (171) Onions (green bunching)
- V-24. (172) Onions (mature and dry)
- V-25. (169) Onions (plantbed)
- II-21. (041) Orchard Grass Pasture
- XII-7. (085) Ornamental Trees
- VII-6. (885) Ornamental Trees (commercial)
- V-26. (166) Parsley
- XIII-12. (105) Peaches - Home Garden
- IV-12. (120) Peaches (bearing)
- IV-13. (123) Peaches (non-bearing)
- I-11. (010) Peanuts
- XIII-13. (107) Pears - Home Garden
- IV-14. (116) Pears (bearing)
- IV-15. (118) Pears (non-bearing)
- IV-16. (125) Pecans
- XIII-14. (109) Pecans (bearing) - Home Garden
- XIII-15. (108) Pecans (young trees) - Home Garden
- V-27. (175) Pepper (Bell and Pimento)
- V-28. (176) Pepper Transplants
- XII-8. (088) Perennial Flowers
- VII-7. (888) Perennial Flowers (commercial)
- II-22. (051) Perennial Peanuts
- III-9. (069) Pine Plantation - Establishment
- III-10. (070) Pine Plantation - Maintenance
- III-11. (068) Pine Seedling Nursery
- XIII-16. (106) Plums - Home Garden
- IV-17. (121) Plums (bearing)
- IV-18. (124) Plums (non-bearing)
- V-29. (143) Pole Beans
- V-30. (162) Pumpkin
- V-31. (167) Radishes
- XIII-17. (097) Raspberries - Home Garden
- IV-19. (132) Raspberries (commercial)
- XII-9. (081) Rhododendrons
- VII-8. (881) Rhododendrons (commercial)
- V-32. (168) Rhubarb
- XI-2. (066) Roadside Turf - Establishment
- XI-3. (067) Roadside Turf - Maintenance
- XII-10. (090) Roses
- VII-9. (890) Roses (commercial)
- VIII-7. (060) Ryegrass for Overseeding Lawns
- VIII-8. (SSP) Seashore Paspalum
- II-23. (048) Sericea
- XII-11. (086) Shade Trees
- VII-10. (886) Shade Trees (commercial)
- I-12. (013) Small Grain - Barley
- I-13. (012) Small Grain - Oats
- I-14. (014) Small Grain - Rye for Seed Production or Cover Crop
- I-15. (011) Small Grain - Wheat
- I-16. (711) Small Grain Silage
- V-33. (141) Snap Beans
- VI-1. (769) Sod Production Centipede
- VI-2. (768) Sod Production Hybrid Bermudas
- VI-3. (771) Sod Production St. Augustine
- VI-4. (772) Sod Production Tall Fescue
- VI-5. (770) Sod Production Zoysia
- I-17. (004) Sorghum Silage
- II-24. (044) Sorghum Sudan Hybrids
- V-34. (174) Southern Peas
- I-18. (017) Soybeans
- V-35. (152) Spinach, fresh market
- XII-12. (091) Spring Flowering Bulbs
- VII-11. (891) Spring Flowering Bulbs (commercial)
- V-36. (161) Squash
- VIII-9. (055) St. Augustine Lawn
- V-37. (181) Staked Tomatoes
- XIII-18. (110) Strawberries - Home Garden
- IV-20. (130) Strawberries-Plasticulture
- II-25. (031) Subterranean Clover

- I-19. (008) Sugar Cane
- XII-13. (089) Summer Bulbs
- VII-12. (889) Summer Bulbs (commercial)
- XIV-10. (w02) Summer Deer Mix (Grass only)
- XIV-11. (w01) Summer Deer Mix (Legume only)
- XIV-12. (w03) Summer Deer Mix (Legumes and Grass)
- II-26. (049) Summer Perennials Overseeded in Fall
- I-20. (009) Sunflower
- V-38. (158) Sweet Corn
- V-39. (178) Sweet Potatoes
- I-21. (007) Sweet Sorghum
- II-31. (sGB) Switchgrass and other native  
grasses-Biomass and forage
- II-32. (sGW) Switchgrass and other native  
grasses-Wildlife
- VIII-10. (058) Tall Fescue Lawn
- II-27. (050) Temporary Winter Grazing
- I-22. (019) Tobacco (Average Pebble Soil)
- I-23. (018) Tobacco (Low Moisture and Sandy Soils)
- I-24. (020) Tobacco Plant Bed
- V-40. (182) Tomato Transplants
- I-28. (TRU) Truffles
- V-41. (153) Turnips, fresh market
- II-28. (034) Vetch
- V-42. (163) Watermelon
- I-25. (015) Wheat - Grain Sorghum Rotation
- I-26. (016) Wheat - Soybean Rotation
- II-29. (741) White Clover
- XIV-13. (191) Wildlife Plots - Chufa
- XIV-14. (190) Wildlife Plots - Temporary Winter  
Grazing
- VIII-11. (056) Zoysia Lawn

## Truffles (Code #TRU)

Soil Test Rating	Potassium			
	Low K	Medium K	High K	Very High K
	Coast: 0-30 lbs/A Pied: 0-50 lbs/A	Coast: 31-60 lbs/A Pied: 51-100 lbs/A	Coast: 61-150 lbs/A Pied: 101-200 lbs/A	Coast: 150+ lbs/A Pied: 200+ lbs/A
Phosphorus	<i>Recommended Pounds N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O per Acre</i>			
<b>Low P</b> Coast: 0-10 lbs/A Pied: 0-10 lbs/A	*-80-80	*-80-50	*-80-0	*-80-0
<b>Medium, High, Very High P</b> >10 lbs/A	*-0-80	*-0-50	*-0-0	*-0-0

Coast = Coastal Plain    Pied = Piedmont, Mountain, and Limestone Valley

### Recommendations:

Recommended pH:	7.5 - 8.0								
Nitrogen:	30-50 pounds nitrogen (N) per acre to the host tree								
Magnesium:	If soil test Mg level is low and lime is recommended, use dolomitic limestone; if soil test Mg is low and lime is not recommended, apply 25 pounds of Mg/Acre. <table border="1" style="margin-left: 40px;"> <tr> <td>Coastal Plain</td> <td>Low: 0 - 30 lbs/acre</td> <td>Medium: 31 - 60 lbs/acre</td> <td>High: &gt;60 lbs/acre</td> </tr> <tr> <td>Piedmont</td> <td>Low: 0 - 60 lbs/acre</td> <td>Medium: 61 - 120 lbs/acre</td> <td>High: &gt;120 lbs/acre</td> </tr> </table>	Coastal Plain	Low: 0 - 30 lbs/acre	Medium: 31 - 60 lbs/acre	High: >60 lbs/acre	Piedmont	Low: 0 - 60 lbs/acre	Medium: 61 - 120 lbs/acre	High: >120 lbs/acre
Coastal Plain	Low: 0 - 30 lbs/acre	Medium: 31 - 60 lbs/acre	High: >60 lbs/acre						
Piedmont	Low: 0 - 60 lbs/acre	Medium: 61 - 120 lbs/acre	High: >120 lbs/acre						

### Fact Sheet:

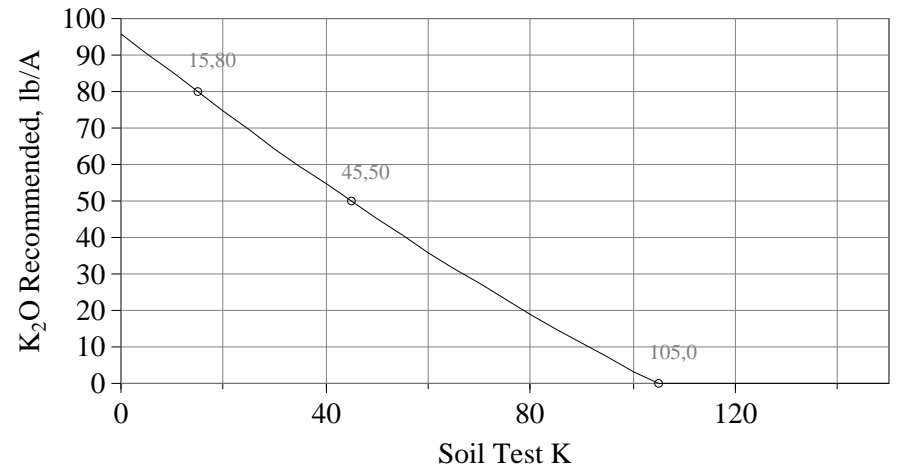
The recommended pH for truffles is 7.5 to 8.0. The soil should contain an excess of lime to maintain this pH level. Dolomitic lime is recommended to maintain an adequate magnesium level in the soil. Soil test phosphorus should be less than 10 pounds available P per acre for truffle production. Truffle production is a symbiotic relationship between the fungus and the tree. The more that soil test P exceeds 10 pounds per acre, the less chance there is for success in truffle production. Potassium fertilizer applications should be those needed by the host trees. Apply 30 to 50 pounds N per acre to the host tree after new leaves appear in the spring.

### Truffles (Code TRU)

At phosphorus soil test values in the traditional medium, high, and very high ranges, production of truffles may not be successful.

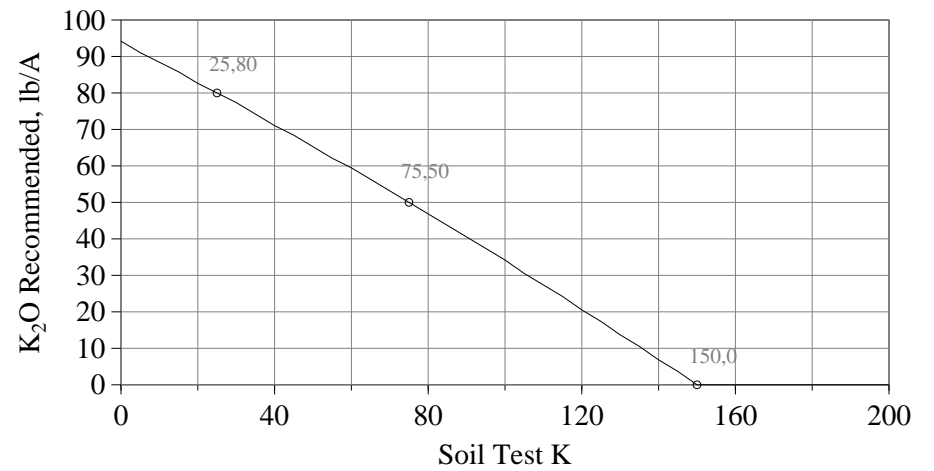
#### K Recommendations, Coastal Plain

$$K_2O = 96 - 1.111K + 0.00185K^2$$



#### K Recommendations, Piedmont

$$K_2O = 94 - 0.547K - 0.00053K^2$$





**Blueberries-Rabbiteye (commercial) (Code #126)**

Soil Test Rating	Potassium			
	Low K	Medium K	High K	Very High K
	Coast: 0-70 lbs/A Pied: 0-70 lbs/A	Coast: 71-120 lbs/A Pied: 71-150 lbs/A	Coast: 121-275 lbs/A Pied: 151-275 lbs/A	Coast: 275+ lbs/A Pied: 275+ lbs/A
Phosphorus	<i>Recommended Pounds N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O per Acre</i>			
<b>Low P</b> Coast: 0-30 lbs/A Pied: 0-20 lbs/A	*-75-75	*-75-40	*-75-0	*-75-0
<b>Medium P</b> Coast: 31-60 lbs/A Pied: 21-40 lbs/A	*-40-75	*-40-40	*-40-0	*-40-0
<b>High P</b> Coast: 61-100 lbs/A Pied: 41-75 lbs/A	*-0-75	*-0-40	*-0-0	*-0-0
<b>Very High P</b> Coast: 100+ lbs/A Pied: 75+ lbs/A	*-0-75	*-0-40	*-0-0	*-0-0

Coast = Coastal Plain    Pied = Piedmont, Mountain, and Limestone Valley

**Recommendations:**

Recommended pH:	Coastal Plain: 4.0 to 5.0 Piedmont: 4.2 to 5.2								
Magnesium:	If soil test Mg level is low and lime is recommended, use dolomitic limestone; if soil test Mg is low and lime is not recommended, apply 125 pounds magnesium sulfate (Epsom salts) per acre. <table border="1" style="margin-left: 40px;"> <tr> <td>Coastal Plain</td> <td>Low: 0 - 60 lbs/acre</td> <td>Medium: 61 - 120 lbs/acre</td> <td>High: &gt;120 lbs/acre</td> </tr> <tr> <td>Piedmont</td> <td>Low: 0 - 120 lbs/acre</td> <td>Medium: 121 - 240 lbs/acre</td> <td>High: &gt;240 lbs/acre</td> </tr> </table>	Coastal Plain	Low: 0 - 60 lbs/acre	Medium: 61 - 120 lbs/acre	High: >120 lbs/acre	Piedmont	Low: 0 - 120 lbs/acre	Medium: 121 - 240 lbs/acre	High: >240 lbs/acre
Coastal Plain	Low: 0 - 60 lbs/acre	Medium: 61 - 120 lbs/acre	High: >120 lbs/acre						
Piedmont	Low: 0 - 120 lbs/acre	Medium: 121 - 240 lbs/acre	High: >240 lbs/acre						
Sulfur:	If soil pH is greater than 5.3, sulfur will be recommended to decrease soil pH to the sufficient range. If sulfur is applied prior to planting, apply the recommended amount at least six months before planting and mix it into the soil thoroughly to a depth of 6 to 8 inches. If sulfur is recommended for an established crop, apply broadcast no more than 300 pounds of sulfur per acre. Do not apply sulfur when the foliage is wet.								
<b>Important:</b>	Read comments on Fact Sheet when preparing fertilizer recommendations.								

**Fact Sheet:**

If pH is less than 4, then 100 pound of lime per acre should be broadcast for every 0.1 pH increase that is desired to a maximum of 700 pounds per acre.

If the soil test calcium (Ca) level exceeds 900 pounds per acre or if the soil test phosphorus level is greater than 200 pounds per acre the site is not well suited for blueberries without special care.

If soil organic matter is less than 2%, use liberal quantities of peat moss or milled or ground (fine) pine bark mixed with the soil when planting. Following planting mulch heavily with pine bark, rotted pine sawdust, or pine straw if practical.

If soil test phosphorus (P) is less than 20 pounds per acre, apply 300 pounds of 0-46-0 per acre preplant and incorporate in the top 6 to 8 inches of soil to raise available P to a level needed by rabbiteye blueberries.

**First Year After Planting**

Apply 1 ounce of 10-10-10 per plant in March, May, July, and September (skip September in north Georgia). Spread the fertilizer evenly in a circle 18 inches in diameter with the plant in the center. **Do not pile the fertilizer around the base of the bush.** At a plant spacing of 5 by 12 feet (726 plant per acre) this will require 45 pounds of fertilizer per acre. A minimum of 4 inches of rain or overhead irrigation should be received between fertilizer applications.

**Succeeding Years-Standard hand applied rabbiteye fertilizer program with two to four applications per year**

If you are obtaining good growth (a foot or more per year) increase your fertilizer amount in accordance with Table 1. However, base your application on plant size, not age. It is very important not to over fertilize small plants. On second year plants fertilize at bud break, May, July, and September (skip Sept. in North Georgia). On bushes three years and four years old which are in production, fertilize at bud break, May (optional) and after harvest in August. On bushes five years old and older, fertilize at bud break and after harvest in August. Diameter of the area fertilized should be approximately equal to the height of the bush. By the fifth year, the fertilizer may be applied in the row (banded application).

When the plants are six years old, or six feet high, they are considered to be mature and you should be at your peak fertilization rate. Note: Fertilizers low in phosphorus (12-4-8, 16-4-8, or 21-0-0 (ammonium sulfate)) should be used only on fields with high and very high phosphorus levels.

**Table 1. Rabbiteye blueberry hand applied fertilization with 10-10-10, 12-4-8, 16-4-8, 14-28-14, or ammonium sulfate. Years two through five.**

Age of Plant	Plant Height	Plant Diameter	Amount of fertilizer per plant per application-use soil test to determine which material to use					Applications Per Year
1st year	1 foot		(See previous recommendations)					
			10-10-10	12-4-8	16-4-8	14-28-14	Ammonium sulfate (summer application if no P and K needed)	
2nd year	2 feet	24"	1.5 oz.	1.2 oz.	0.93 oz.	1.1 oz.	0.71 oz.	3 or 4
3rd year	3 feet	30"	3.0 oz.	2.5 oz.	1.9 oz.	2.1 oz.	1.4 oz.	2 or 3
4th year	4 feet	36"	4.5 oz.	3.7 oz.	2.8 oz.	3.2 oz.	2.1 oz.	2 or 3
5th year	5 feet	42"	6 oz.	5 oz.	3.75 oz.	4.3 oz.	2.9 oz.	2
6th year+	6 feet	48"	8 oz.	6.7 oz.	5.0 oz.	5.7 oz.	3.8 oz.	2

**Fertilizing rabbiteye blueberries years five and older with banded applications based on row spacing and plant density**

Based on soil samples select the common type of fertilizer that best suits your plant needs or have a custom blend prepared. If you want to fertilize without a soil test, the suggested analysis is 10-10-10.

Multiply the ounces per plant in Table 1 with the number of plants per acre. (If the field is planted 5 by 12 = 726 plants per acre, if the field is planted 6 by 12 = 608 plants per acre). Divide by 16 ounces per pound to obtain pounds of fertilizer per acre. For example 6 ounces times 726 plants per acre = 4356 divided by 16 = 272 pounds of fertilizer per acre. Spread the fertilizer in a band four feet in diameter centered on the plant row. Banded applications can also be use in years two and three but double the amount of fertilizer recommended for hand applications since much of the fertilizer will be lost. Banded applications in year four should be 50% more than hand applications (multiply by 1.5).

**\*Nitrogen recommendation:**

For mature bushes, as a general recommendation, 60 pounds of nitrogen should be applied per acre, half at bud break and half immediately after harvest. Organic or slow-release nitrogen sources such as is found in certain lawn fertilizer formulations are excellent nitrogen sources for blueberries. Part of the nitrogen is readily available while part is available in small amounts over a longer period. However, since such sources of nitrogen are quite expensive, it is suggested that these nitrogen sources be applied individually to bushes.

Soils vary in their natural ability to supply the plant available forms of nitrogen (N). The N fertilizer recommendations given here are based on soils with 1 to 2% organic matter (OM). Soils with higher OM (4 to 6% OM) generally supply more N; therefore, less N fertilizer is needed on high OM soils. Likewise, be aware of conditions that may increase the need for additional N. On new plantings to which pine bark has been added (especially pine bark with white wood), additional N fertilizer may be needed to overcome N tie-up by bacteria. Sufficient nitrogen should be applied to grow good lateral fruit wood 5 to 8 inches in length. However, do not add too much nitrogen because it may lead to growth of highly succulent shoots that are susceptible to *Botryosphaeria* stem blight. In general, N should not be applied after early September in South Georgia or mid-August in North Georgia. Nitrogen fertilizer is used more efficiently if added through drip irrigation systems; therefore, recommended N rates may be reduced by about 20%. Because of these many complex factors, we recommend plant tissue analysis and grower observations as the most reliable guide for adjusting the rate of N fertilizer to apply. For more information on plant analysis, go to <http://aesl.ces.uga.edu/publications/plant/>.

## Blueberries-Southern Highbush in Pinebark Beds (Code #134)

Because finely ground pine bark has properties different from soil, we do not use the routine soil test for determining the fertilizer requirements of blueberries grown in pine bark beds. Instead, the testing procedure for "Greenhouse and Nursery Soils" (pH, P, K, Ca, Mg, nitrate, ammonium, and soluble salts) is used, primarily as a troubleshooting test to determine if soluble salts and pH may be outside the desirable range. Suggested EC levels (soluble salts) for pine bark substrate are 0.50 to 0.75 mhos/cm. The pH should be in the desirable range of 4 to 5. In addition, the following table gives values for nutrient concentrations considered insufficient, sufficient, and excessive for woody ornamentals, and which may be used as a partial guide for the production of blueberries grown in pine bark beds. The nutrient ranges, while highly useful for controlled environments such as the greenhouse, may not be as reliable in the field because nutrient levels can sometimes change quickly due to heavy leaching rains. Do not rely heavily on the nutrient ranges in the table because nutrient levels can change quickly with heavy leaching rains. An "insufficient" level does not mean the plants are nutrient deficient.

### Recommendations

**Range of nutrient concentration in saturation extraction method for soil-less media for optimal production of woody ornamentals during the growing season. Method used by UGA lab.**

Element	Parts per million (ppm)		
	Insufficient	Sufficient	Excessive
Nitrogen (nitrate)	<39	40-139	>140
Phosphorus	<3	4-13	>14
Potassium	<49	50-179	>180
Calcium	<69	70-219	>220
Magnesium	<29	30-99	>100

Recommended pH of the saturated extract: pH = 4.0 to 5.0.

Recommended EC of the saturated extract: 0.50 to 0.75.

### pH management

Pine bark should have a natural pH between 4.0 and 5.0, ideal for blueberries. High pH irrigation water can raise the pH too much, which may require action by the grower. If the pH increases above 5.0, use ammonium sulfate as a nitrogen source. Acidification of the irrigation water is another option. Many Georgia greenhouse growers and longleaf pine nursery growers normally use sulfuric acid for acidifying the irrigation water for their crops. Elemental sulfur can also be used to lower the pH, but apply a modest amount (300 pounds per treated acre) and wait several months to determine the extent of the pH change before applying more, if needed. At the 300 pound per acre rate, sulfur can be applied over the top on plants in the field. However, do not apply when the leaves are wet. Iron sulfate can also be used to lower the pH of the pine bark and supply iron. On plants already set in the field, use a maximum of one-half pound per cubic yard of pine bark substrate or one-half pound per 54 square feet. This is equivalent to 400 pounds per treated acre if the pine bark is six inches deep. If the pH of the pine bark is below 4.0 use urea as a nitrogen source. It is less acid forming than ammonium sulfate. Liming with dolomitic limestone can be conducted if necessary, but in our experience it has not been needed since most of the deep well irrigation water in the South Georgia blueberry belt is alkaline (pH above 7).

### EC management

If EC is consistently below the desirable range, this indicates that plant nutrients may be limiting to the growth of the blueberries. Fertilizer application according to the recommended levels below will raise EC into the desirable range.

### Fertilizer management

#### **First year of planting**

Young blueberry plants are easily burned by excess fertilizer salts. For this reason, extreme caution must be exercised if you are using a regular dry granular fertilizer on young blueberry plants, especially rooted cuttings. **Slow release or controlled release fertilizers are recommended for this phase of production. Follow manufacturers directions. Use the "low" or "medium" rate for salt sensitive plants.**

#### **Rooted cuttings with controlled release and slow release fertilizer**

If rooted cuttings or plug plants are set, typically about a one teaspoon to one tablespoon of fertilizer per plant is applied at each application with two to four applications per year depending on if controlled release or slow release fertilizer is used. This is based on manufacturers' recommendations for a one gallon container. Some growers are using several applications of controlled release fertilizer per year with regular fertilizer applied monthly. Scatter the fertilizer evenly over a circle about 12 inches in diameter with the plant in the center. Increase amount of fertilizer as plants grow.

**Regular fertilizer in year one**

If you plant rooted cuttings or plug plants and decide to use regular fertilizer, apply about one-half teaspoon of premium grade (contains micronutrients) 10-10-10 applied evenly in a circle 12 inches in diameter starting at bud break and continuing every two to three weeks during the early part of the summer. This is equivalent to 30 pounds of nitrogen per acre if broadcast. As the rooted cuttings grow to about a foot in height, if one gallon size plants are set, the rate can be increased to a teaspoon per application and the diameter of the circle increased to 18 inches. Apply every two to three weeks. This is equivalent to 27 pounds of nitrogen per acre if broadcast.

**Year one gallon size plants with controlled release and slow release fertilizer**

If gallon size plants are set, use the manufacturer's recommendations for production of plants in a three to five gallon container. A typical program might be 1.5 ounces of 13-6-6 slow release fertilizer applied four times per year or 2-2.5 ounces of controlled release "8-9 month" 18-6-12 applied once. Additional fertilizer from a regular, slow release or shorter term controlled release material may be needed to finish the season, since "8-9 month" controlled release fertilizer is based on an average 70 degree F temperature and normally only lasts about five months in Georgia. Apply evenly in a circle about 24 inches in diameter with the plant in the center.

**Fertilizing two year old bushes in pine bark beds**

Based on recent research from Florida, if you are using regular fertilizer, second year plants should receive about two teaspoons (10.5 grams) of premium grade 10-10-10 or 12-4-8 applied to a circle 24 inches in diameter. This is equivalent to 30 pounds of nitrogen at each application per acre if broadcast. Apply every two weeks during the period growth is desired.

If you are using slow release or controlled release fertilizer spread the fertilizer over an area about three feet in diameter with the plant in the center. The area of the circle in this case would be 7 square feet or 3.5 cubic feet (26 gallons) if the pine bark is six inches deep. **Follow manufacturers directions.** A typical program may be 4 ounces of a slow release material (such as 13-6-6) applied three times per year or 8 ounces of a 8-9 month controlled release material (such as 18-6-12) applied once a year. In late summer an additional application of regular fertilizer may be needed.

**Fertilizing bushes three years and older**

In most high density southern highbush plantings, bushes three years and older are considered mature and have filled their allotted space. Normally a severe rooftop hedging program is practiced, where the bushes are cut back to about three feet immediately after the harvest is finished (about June 1 in South Georgia). This creates a higher demand for fertilization than plants growing in soil where moderate winter pruning is often the only pruning conducted. Also, since pine bark does not hold phosphate well, there is a need to apply phosphorus throughout the growing season.

Research on fertilizing mature bushes in pine bark is very limited, but there is a large body of grower experience. One grower observation is the significant release of nitrogen from old pine bark beds. After the pine bark has been fertilized and aged for a number of years, plants may not require as much nitrogen as expected late in the season. Leaf nutrient levels and growth should be monitored.

Many growers in Georgia and Florida are using a premium grade (contains micronutrient and secondary nutrients) 10-10-10, 12-4-8, or 18-6-12. Micronutrients (boron, iron, manganese, zinc, etc.) and secondary nutrients (sulfur, magnesium, etc.) may be needed but some micronutrients such as boron and manganese may reach toxic levels in some situations. Leaf nutrient levels should be monitored and fertilizer blends adjusted as needed.

Typically about 100 to 220 pounds of actual nitrogen is applied per year, divided into six to eight applications. A typical program with **regular** fertilizer would be 150-200 pounds per acre of 10-10-10 or 120-135 pounds per acre of 18-6-12 applied in mid-February, mid-March and early April in South Georgia. Avoid application of nitrogen during harvest if the plants look healthy and have adequate nitrogen in the leaves based on leaf analysis. Make sure that plants have adequate potassium in the leaves at harvest. This is an important element for fruit quality. However, excessive application of potassium will induce magnesium deficiency. Starting at hedging June 1, another 150-200 pounds of 10-10-10 or 120-135 pounds per acre of 18-6-12 is applied every three to four weeks until early September in South Georgia.

Soils vary in their natural ability to supply the plant available forms of nitrogen (N). The N fertilizer recommendations given here for Southern Highbush are based on soils with 3 to 5% organic matter (OM). Soils with higher OM generally supply more N; therefore, less N fertilizer is needed on high OM soils. Likewise, be aware of conditions that may increase the need for additional N. On new plantings to which pine bark has been added (especially pine bark with white wood), additional N fertilizer may be needed to overcome N tie-up by bacteria. Sufficient nitrogen should be applied to grow good lateral fruit wood 5 to 8 inches in length. However, do not add too much nitrogen because it may lead to growth of highly succulent shoots that are susceptible to Botryosphaeria stem blight. In general, N should not be applied after early September in South Georgia or mid-August in North Georgia. Nitrogen fertilizer is used more efficiently if added through drip irrigation systems; therefore, recommended N rates may be reduced by about 20%. Because of these many complex factors, we recommend plant tissue analysis and grower observations as the most reliable guide for adjusting the rate of N fertilizer to apply. For more information on plant analysis, go to <http://aesl.ces.uga.edu/publications/plant/>.

**Blueberries-Southern Highbush in Soil or Amended Soil (Code #133)**

Soil Test Rating	Potassium			
	Low K	Medium K	High K	Very High K
	Coast: 0-70 lbs/A Pied: 0-70 lbs/A	Coast: 71-120 lbs/A Pied: 71-150 lbs/A	Coast: 121-275 lbs/A Pied: 151-275 lbs/A	Coast: 275+ lbs/A Pied: 275+ lbs/A
<b>Phosphorus</b>	<i>Recommended Pounds N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O per Acre</i>			
<b>Low P</b> Coast: 0-30 lbs/A Pied: 0-20 lbs/A	*-75-75	*-75-40	*-75-0	*-75-0
<b>Medium P</b> Coast: 31-60 lbs/A Pied: 21-40 lbs/A	*-40-75	*-40-40	*-40-0	*-40-0
<b>High P</b> Coast: 61-100 lbs/A Pied: 41-75 lbs/A	*-0-75	*-0-40	*-0-0	*-0-0
<b>Very High P</b> Coast: 100+ lbs/A Pied: 75+ lbs/A	*-0-75	*-0-40	*-0-0	*-0-0

Coast = Coastal Plain    Pied = Piedmont, Mountain, and Limestone Valley

**Recommendations:**

Recommended pH:	Coastal Plain: 4.0 to 5.0 Piedmont: 4.2 to 5.2								
Magnesium:	If soil test Mg level is low and lime is recommended, use dolomitic limestone; if soil test Mg is low and lime is not recommended, apply 125 pounds magnesium sulfate (Epsom salts) per acre. <table border="1" style="margin-left: 40px;"> <tr> <td>Coastal Plain</td> <td>Low: 0 - 60 lbs/acre</td> <td>Medium: 61 - 120 lbs/acre</td> <td>High: &gt;120 lbs/acre</td> </tr> <tr> <td>Piedmont</td> <td>Low: 0 - 120 lbs/acre</td> <td>Medium: 121 - 240 lbs/acre</td> <td>High: &gt;240 lbs/acre</td> </tr> </table>	Coastal Plain	Low: 0 - 60 lbs/acre	Medium: 61 - 120 lbs/acre	High: >120 lbs/acre	Piedmont	Low: 0 - 120 lbs/acre	Medium: 121 - 240 lbs/acre	High: >240 lbs/acre
Coastal Plain	Low: 0 - 60 lbs/acre	Medium: 61 - 120 lbs/acre	High: >120 lbs/acre						
Piedmont	Low: 0 - 120 lbs/acre	Medium: 121 - 240 lbs/acre	High: >240 lbs/acre						
Sulfur:	If soil pH is greater than 5.3, sulfur will be recommended to decrease soil pH to the sufficient range. If sulfur is applied prior to planting, apply the recommended amount at least six months before planting and mix it into the soil thoroughly to a depth of 6 to 8 inches. If sulfur is recommended for an established crop, apply broadcast no more than 300 pounds of sulfur per acre. Do not apply sulfur when the foliage is wet.								
<b>Important:</b>	Read comments on Fact Sheet when preparing fertilizer recommendations.								

**Fact Sheet:**

If pH is less than 4, then 100 pound of lime per acre should be broadcast for every 0.1 pH increase that is desired to a maximum of 700 pounds per acre.

If the soil test calcium (Ca) level exceeds 900 pounds per acre or if the soil test phosphorus level is greater than 200 pounds per acre the site is not well suited for blueberries.

If soil organic matter is less than 3%, use liberal quantities of peat moss or milled or ground (fine) pine bark mixed with the soil when planting. Following planting, mulch heavily with pine bark, rotted pine sawdust, or pine straw if practical.

If soil test phosphorus (P) is less than 20 pounds per acre, apply 300 pounds of 0-46-0 per acre preplant and incorporate in the top 6 to 8 inches of soil to raise available P to a level needed by southern highbush blueberries.

**Rooted cuttings with controlled release and slow release fertilizer**

If rooted cuttings or plug plants are set, typically about a one teaspoon to one tablespoon of fertilizer per plant is applied at each application with two to four applications per year depending on if controlled release or slow release fertilizer is used. This is based on manufacturers' recommendations for a one gallon container. Some growers are using several applications of controlled release fertilizer per year with regular fertilizer applied monthly. Scatter the fertilizer evenly over a circle about 12 inches in diameter with the plant in the center. Increase amount of fertilizer as plants grow.

**First Year After Planting for One-gallon Plants at Bud Break**

Apply 1/2 ounce (1 tablespoon) of 10-10-10 per plant. Spread the fertilizer evenly in a circle 18 inches in diameter with the plant in the center. **Do not pile the fertilizer around the base of the bush because blueberries are sensitive and you can kill them.** Subsequent applications should be made every 4 to 6 weeks during the growing season when a total of at least four inches of rainfall or overhead irrigation has been received. Fertilize until September, and no later than six weeks before the normal first frost date in your area.

**Per-Plant Applications for Second and Third Year Plants**

If the plants have made **at least 18 inches of growth the first year**, increase the amount of fertilizer the second year to one tablespoon per application for rooted cuttings and 1 ounce (2 tablespoons) for the one gallon size plants at each application. Increase the area in which the fertilizer is applied to **at least a 24 inch circle with the plant in the center for rooted cuttings and 30 inches for one gallon plants**. Make the first application at bud break. Apply every 4 to 6 weeks during the growing season in which a total of at least four inches of rainfall or overhead irrigation has been received. Fertilize until September, but no later than six weeks before normal first frost date in your area. **Banded Applications** of fertilizer can also be used and are listed in Table 1. By year three, plants should be large enough for a banded application of fertilizer with minimum waste of fertilizer. Band the fertilizer in a strip four feet wide centered on the plant row.

**Table 1. Maximum growth program with banded fertilizer application on southern highbush and highbush (pounds per acre). Base fertilizer type on soil tests. Band width is four feet.**

<b>Year in field</b>	<b>Between row spacing (feet)</b>	<b>10-10-10</b>	<b>12-4-8</b>	<b>14-28-14</b>
<b>1</b>	10	90	75	64
	12	74	62	53
<b>2 and 3</b>	8	225	187	160
	10	180	150	128
	12	149	124	106

**Fertilizing southern highbush and highbush in soil, year four and after**

**Bearing southern highbush and highbush** growing in soil require about 76-113 pounds of nitrogen per acre per year split into at least four to five applications beginning at bud break and ending in August or September about six weeks before the normal first frost date in your area. Apply about 25 to 38 pounds of nitrogen pre-harvest in spring depending upon distance between the rows (Table 2). It is best to apply one-half the spring fertilizer at early bud break and the second half of the spring fertilizer four weeks later. Starting immediately after harvest, apply about 17 to 25 pounds of nitrogen per acre (depending upon row spacing) every six weeks if you have received at least four inches of rain or irrigation between applications of fertilizer (Table 2). Apply phosphorus and potassium based on soil samples and leaf analysis. Have the fertilizer custom blended or select a common blueberry fertilizer for your fertilizer needs. On soils very high in organic matter (6% or more-rare in Georgia), significant nitrogen is released from the decomposition of the organic matter. On these soils, it may be necessary to reduce the amount of nitrogen applied to 60-80 pounds per year to control excessive plant vigor.

**Table 2: Banded fertilizer application of bearing highbush blueberries (pounds/acre). Band width is four feet.**

Row spacing	Fertilizer formulation			Time of application
	10-10-10	12-4-8	14-28-14	
8	375	311	268	<b>Pre-harvest</b> One-half at bud break and one-half four weeks later
10	300	250	214	
12	249	207	178	
8	250	208	179	<b>Post-harvest</b> Every six weeks until six weeks before normal first frost
10	200	167	143	
12	166	138	118	

Soils vary in their natural ability to supply the plant available forms of nitrogen (N). The N fertilizer recommendations given here for Southern Highbush are based on soils with 3 to 5% organic matter (OM). Soils with higher OM generally supply more N; therefore, less N fertilizer is needed on high OM soils. Likewise, be aware of conditions that may increase the need for additional N. On new plantings to which pine bark has been added (especially pine bark with white wood), additional N fertilizer may be needed to overcome N tie-up by bacteria. Sufficient nitrogen should be applied to grow good lateral fruit wood 5 to 8 inches in length. However, do not add too much nitrogen because it may lead to growth of highly succulent shoots that are susceptible to Botryosphaeria stem blight. In general, N should not be applied after early September in South Georgia or mid-August in North Georgia. Nitrogen fertilizer is used more efficiently if added through drip irrigation systems; therefore, recommended N rates may be reduced by about 20%. Because of these many complex factors, we recommend plant tissue analysis and grower observations as the most reliable guide for adjusting the rate of N fertilizer to apply. For more information on plant analysis, go to <http://aesl.ces.uga.edu/publications/plant/>.



**Blueberries-Home Garden (Code #098)**

Soil Test Rating	Potassium			
	Low K Coast: 0-70 lbs/A Pied: 0-70 lbs/A	Medium K Coast: 71-120 lbs/A Pied: 71-150 lbs/A	High K Coast: 121-275 lbs/A Pied: 151-275 lbs/A	Very High K Coast: 275+ lbs/A Pied: 275+ lbs/A
<b>Phosphorus</b>	<i>See Comments</i>			
<b>Low P</b> Coast: 0-30 lbs/A Pied: 0-20 lbs/A	212	212	212	212
<b>Medium P</b> Coast: 31-60 lbs/A Pied: 21-40 lbs/A	212	212	212	212
<b>High P</b> Coast: 61-100 lbs/A Pied: 41-75 lbs/A	212	212	212	212
<b>Very High P</b> Coast: 100+ lbs/A Pied: 75+ lbs/A	212	212	212	212

Coast = Coastal Plain    Pied = Piedmont, Mountain, and Limestone Valley

**Recommendations:**

Recommended pH:	Coastal Plain: 4.0 to 5.0 Piedmont: 4.2 to 5.2								
Magnesium:	If soil test Mg level is low and lime is recommended, use dolomitic limestone; if soil test Mg is low and lime is not recommended, apply 3 ounces magnesium sulfate (Epsom salts) per plant. <table border="1" style="margin-left: 40px;"> <tr> <td>Coastal Plain</td> <td>Low: 0 - 60 lbs/acre</td> <td>Medium: 61 - 120 lbs/acre</td> <td>High: &gt;120 lbs/acre</td> </tr> <tr> <td>Piedmont</td> <td>Low: 0 - 120 lbs/acre</td> <td>Medium: 121 - 240 lbs/acre</td> <td>High: &gt;240 lbs/acre</td> </tr> </table>	Coastal Plain	Low: 0 - 60 lbs/acre	Medium: 61 - 120 lbs/acre	High: >120 lbs/acre	Piedmont	Low: 0 - 120 lbs/acre	Medium: 121 - 240 lbs/acre	High: >240 lbs/acre
Coastal Plain	Low: 0 - 60 lbs/acre	Medium: 61 - 120 lbs/acre	High: >120 lbs/acre						
Piedmont	Low: 0 - 120 lbs/acre	Medium: 121 - 240 lbs/acre	High: >240 lbs/acre						
Sulfur:	If soil pH is greater than 5.3, sulfur will be recommended to decrease soil pH to the sufficient range. If sulfur is applied prior to planting, apply the recommended amount at least six months before planting and mix it into the soil thoroughly to a depth of 6 to 8 inches. If sulfur is recommended for an established crop, apply broadcast no more than 300 pounds of sulfur per acre. Do not apply sulfur when the foliage is wet.								
<b>Important:</b>	Read comments on Fact Sheet when preparing fertilizer recommendations.								

**Comments:**

212. These recommendations are for rabbiteye blueberries. For southern highbush and highbush, see Commercial Southern Highbush Recommendations (Code #133).

If the soil test calcium (Ca) level exceeds 900 pounds per acre or if the soil test phosphorus level is greater than 200 pounds per acre the site is not well suited for blueberries. Try to find a better site.

If soil organic matter is less than 2%, use liberal quantities of peat moss or pine bark mixed with the soil when planting. Following planting mulch heavily with pine bark, rotted sawdust, or pine straw if practical.

Plant the blueberry bush the same depth it grew in the nursery and spread the roots apart if pot bound.

After the plant has been settled by rain, apply 2 tablespoons (1 ounce) 10-10-10 or 12-4-8 or 4 level tablespoons (2 ounces) of azalea special fertilizer (4-8-8) evenly over a circle of 18-inch diameter centered on the plant. Refertilize at the same rate in May and July if rainfall or overhead irrigation has been adequate (at least 4 inches since the previous fertilization). **Blueberries are sensitive to excess fertilizer salts. Do not pile fertilizer at base of the plant.** In March and July of the second year apply 2 ounces 10-10-10 or 12-4-8 or 4 ounces 4-8-8 evenly over a circle of 2-foot diameter centered on the plant. In later years each bush should receive 1 ounce 10-10-10 or 12-4-8 or 2 ounces 4-8-8 per foot of bush height to a maximum of 6 ounces per application for 10-10-10 or 12-4-8 and 12 ounces per application for 4-8-8. Increase the area the fertilizer is broadcast over also. If both phosphorus (P) and potassium (K) soil test levels are high or very high, ammonium sulfate (21-0-0) can be used at 1/2 the rate of 10-10-10 or 46-0-0 at 1/4 the rate of 10-10-10. Avoid use of nitrate nitrogen (sodium nitrate, calcium nitrate, etc.) on blueberries.

Soils vary in their natural ability to supply the plant available forms of nitrogen (N). The N fertilizer recommendations given here are based on soils with 1 to 2% organic matter (OM). Soils with higher OM (4 to 6% OM) generally supply more N; therefore, less N fertilizer is needed on high OM soils. Likewise, be aware of conditions that may increase the need for additional N. On new plantings to which pine bark has been added (especially pine bark with white wood), additional N fertilizer may be needed to overcome N tie-up by bacteria. Sufficient nitrogen should be applied to grow good lateral fruit wood 5 to 8 inches in length. However, do not add too much nitrogen because it may lead to growth of highly succulent shoots that are susceptible to *Botryosphaeria* stem blight. In general, N should not be applied after early September in South Georgia or mid-August in North Georgia. Nitrogen fertilizer is used more efficiently if added through drip irrigation systems; therefore, recommended N rates may be reduced by about 20%. Because of these many complex factors, we recommend plant tissue analysis and grower observations as the most reliable guide for adjusting the rate of N fertilizer to apply. For more information on plant analysis, go to <http://aesl.ces.uga.edu/publications/plant/>.