

SOIL TEST INFORMATION SHEET NO. F-520

Prepared by Extension Fruit and Nut Specialist Dr. Michael Polozola

Blueberries

1. Blueberry plants grow best in soils with a pH between 4.5 and 5.5.
2. Soil and Site Considerations:
 - Blueberries require acidic, well-drained, sandy soils high in organic matter.
 - Avoid poorly drained or heavy clay soils. If drainage is poor or soil pH is too high, consider: raised beds or mounds, or container production using acidic substrates like pine bark or peat.
 - When growing in containers use soilless media only. Use soilless media testing, not standard soil tests.
3. Adjusting pH:
 - At pH above 5.5, nutrient availability—especially iron—declines, often causing chlorosis (yellowing leaves). If pH is too high (>5.5):
 - Avoid planting directly in native soil.
 - Use container production with acidic media as an alternative.
 - At pH below 4.0, root damage and nutrient imbalances can occur. If pH is too low (<4.0):
 - Apply dolomitic lime to raise pH and supply magnesium.
 - Use ¼ pound per plant to raise pH by ~1 unit.
 - Apply lime under mulch, directly over the root zone.
4. Nitrogen Source and pH:
 - Blueberries have a low nitrogen requirement, but N is still the most important nutrient for growth. Use only ammonium-based nitrogen sources (e.g., ammonium sulfate or urea), not nitrate forms.
 - Use ammonium sulfate to help acidify soil over time—ideal when pH is slightly high.
 - Use urea when pH is already low to slow further acidification.
5. Nitrogen (N) Fertilization for Homeowners (Split Application):
 - Apply 1 tablespoon ammonium sulfate per plant in March
 - Repeat with ½ tablespoon in mid-April and again in mid-May
 - If using 10-10-10, apply:
 - ½ cup per plant in March
 - ¼ cup in April and May
 - Do not fertilize after early July.
 - Water after application; avoid placing fertilizer at the base of the plant.

6. Nitrogen (N) Fertilization for Homeowners (Simple Once-Per-Season):
- Apply ½ cup of 10-10-10 or 15-5-10 per plant in early spring (March)
 - Water thoroughly after application
 - Works best for established plants in well-prepared, acidic soil
 - If growth is poor (<12 inches new shoot growth), apply ¼ cup in May

7. Nitrogen (N) Fertilization for Commercial or Large-Scale Plantings:
- Use the following schedule per plant with ammonium sulfate or 15-5-10:

Plant Age	March	April	May	Sept
Year 1	1 oz	1 oz	1 oz	1 oz
Year 2	2 oz	1 oz	1 oz	1 oz
Year 3	3 oz	1 oz	1 oz	1 oz
Year 4	4 oz	2 oz	2 oz	2 oz
Year 5+	5 oz	2 oz	2 oz	2 oz

- Use urea instead of ammonium sulfate if soil pH is below 5.0.
- Avoid applying fertilizer unless the soil is moist or rain is expected.

8. Application Methods:

- Broadcasting: Spread fertilizer evenly in a circle around the plant, just beyond the drip line.
- Dribbling: Place fertilizer in shallow holes (~6 inches deep) around the drip line to reduce nutrient loss and improve uptake.
- Avoid placing fertilizer directly at the base of the plant.

9. Phosphorus (P) and Potassium (K)

- Only apply P or K if soil test levels are medium, low or very low.
- Use 0-46-0 (superphosphate) for phosphorus and 0-0-60 (potassium chloride) for potassium.
- Follow soil test recommendations for rates. Avoid routine phosphorus applications, as excess can tie up iron.

10. Magnesium (Mg)

- Apply dolomitic lime if magnesium is low and pH is below 4.0.
- If pH is above 4.0, apply Epsom salts or potassium-magnesium sulfate in spring: 1 oz per young plant, 2 oz per mature plant.

11. Organic Matter and Mulch

- Maintain a 2–4 inch mulch layer of pine bark, pine straw, or sawdust.
- Mulch helps conserve moisture, suppress weeds, and buffer soil pH.
- Organic matter is especially important in sandy soils or those with high manganese.

12. Contact your county agent for additional information and help in your fertilization program. The agent also receives a copy of this report for the parish office files.