

Importance of Soil Health/Management For Blueberry Production



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Rationale of Presentation

1. Importance of Soil Health
2. Basic Soil Factors Influencing Blueberry Production
3. Management Strategies

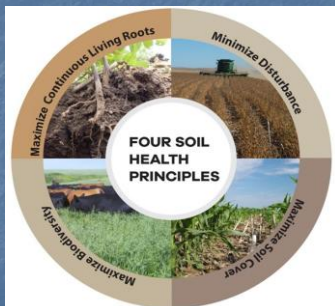
What is Soil Health?

The continued capacity of a soil.....
to function as a vital living ecosystem
that sustains plants, animals and humans.

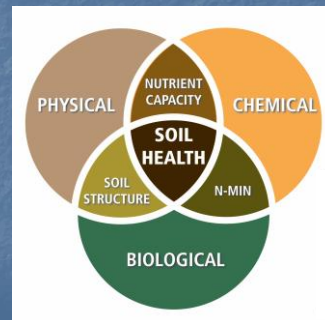
Viewing and managing soils as a
wholistic
physical, chemical and biologic system



Principles of Soil Health



Soil Health Balance



Limiting Factor of Local Soils

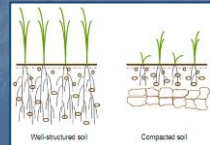
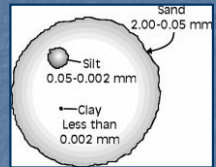


- Improper Drainage
- Clay Content
- Compaction
- Low Organic Matter

Soil Texture

Blueberry plants need:

- Well-drained soil
- Particle Size
- Root Growth



Management Strategy for Soil Texture

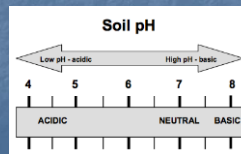
1. Contoured Berms, Raised Beds
2. Soil Amendments
3. Mulching



Soil Chemistry

Blueberry plants need:

1. Acidic soils
4.5-5.5
Iron, Ammonium, Macro & Micro Nutrient Availability



Management Strategy for Soil Chemistry

1. Soil Amendments
pH levels
Sustained Fertilization



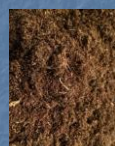
Commercial Acidifiers



Elemental Sulfur



Ammonium Sulfate

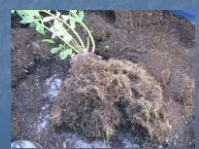
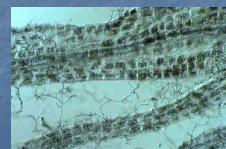


Peat Moss

Soil Biology

Blueberry plants need:

1. Bacteria, Fungi and Nematodes
5:1 Ratio of Fungi to Bacteria
Ericoid Endomycorrhizae
Root Development, Nutrient Uptake/ Micronutrient Transfer



Management Strategy for Soil Biology

1. Soil Amendments
2. Compost
3. Mulching



Home Gardening



Home Gardening



Summary

1. Prepare soil bed before planting
2. Take regular annual or bi-annual tests
3. Think of soil as a long-term investment
4. You are the expert.

Prepare Your Planting Area for Blueberries

Step 1: Dig a hole 12-18 inches deep and 12-18 inches wide. The hole should be 2-3 times wider than the root system of the plant.

Step 2: Add 2-3 inches of soil amendments. Mix 1/2 part peat moss, 1/2 part compost, and 1/4 part perlite or vermiculite. This mixture will improve drainage and provide nutrients for the plant.

Step 3: Plant the blueberry. Place the plant in the hole, ensuring the root system is spread out. Fill the hole with the soil mixture and water thoroughly.

Example of Soil Test Report from NCS Soil Testing Lab for Lawns and Garden Fertilizer Use:

Client Name	Soil Test Request	DATE	TIME
XXXXXXXXXX	Soil Test for Garden	10/20/11	10:00 AM
XXXXXXXXXX	Soil Test for Garden	10/20/11	10:00 AM

Report No: 1001-1001-11 Test Report No: 1001-1001-11

Client Name: XXXXXXXXXXXX Address: XXXXXXXXXXXX

Soil Test Request: Soil Test for Garden Location: XXXXXXXXXXXX

Soil Test Date: 10/20/11 Test Report Date: 10/20/11

Soil Test Results:

Parameter	Value	Units	Scale	Notes
pH	6.5		1-14	
EC	150	µS/cm	0-1000	
NO3-N	10	ppm	0-100	
NO2-N	0	ppm	0-10	
NH4-N	0	ppm	0-10	
Total N	10	ppm	0-100	
Total P	10	ppm	0-100	
Total K	10	ppm	0-100	
Total Ca	10	ppm	0-100	
Total Mg	10	ppm	0-100	
Total S	10	ppm	0-100	
Total Fe	10	ppm	0-100	
Total Zn	10	ppm	0-100	
Total Cu	10	ppm	0-100	
Total Mn	10	ppm	0-100	
Total B	10	ppm	0-100	
Total I	10	ppm	0-100	
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