

Advice to Grow By
... Ask Us!

UCCE Master Gardeners
San Mateo & San Francisco Counties



Growing Beautiful Roses Soil, Fertilizer and Nutrition

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Peninsula Rose Society

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University of California
Agriculture and Natural Resources

UCCE Master Gardener Program
San Mateo and San Francisco Counties

Learning Objectives

- Nutrients
- Availability of nutrients and timing
- Fertilizers and Amendments
- Soil structure and simple tests
- Cover your soil and manage water



Nutrients

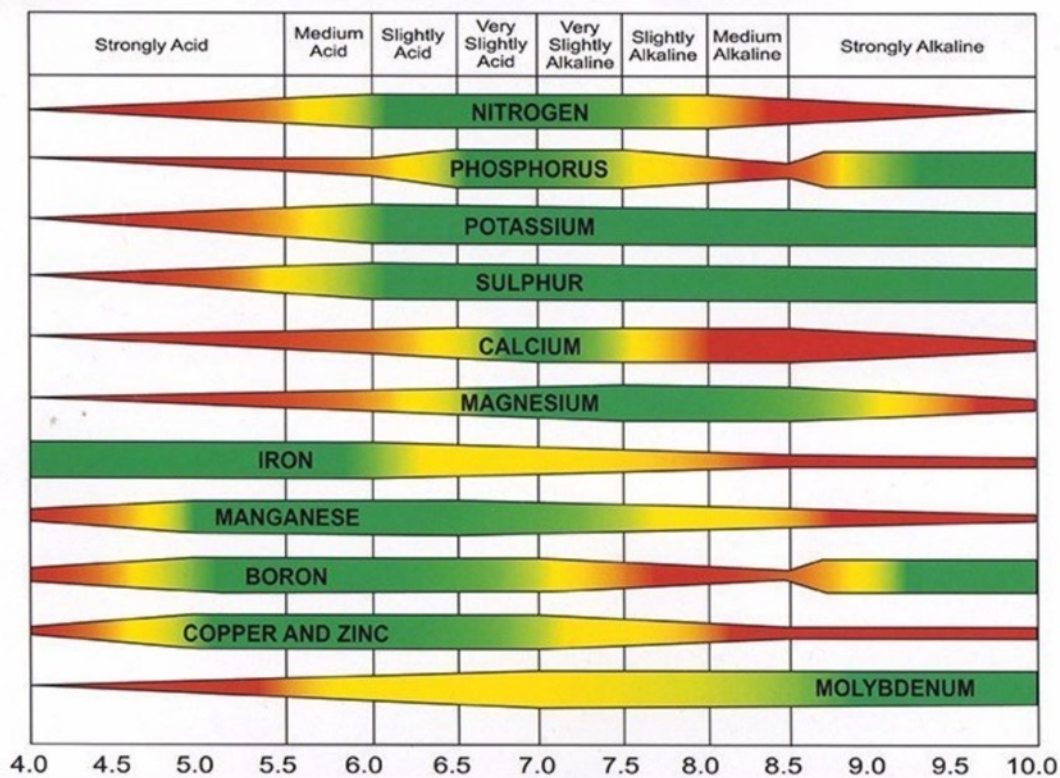
- Nutrients – from sun, air and water and...
- The Big Three nutrients Nitrogen, Phosphorous, Potassium (NPK)
- Lesser nutrients and micronutrients
- Can be provided by chemical or organic materials. Soils and conditions help make nutrients available



pH Impacts Nutrient Uptake

- pH 6-7 is a good range for Roses to use available nutrients
- 6.5 is ideal
- Both “chemical” and Organic fertilizers and blends can provide nutrients
- Roses do best in slightly acidic soil

How soil pH affects availability of plant nutrients.



SOURCE: <https://www.emporiumhydroponics.com/what-is-ph-1-to-14>



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Fertilize Periodically or Slow Release

- Synthetic / chemical fertilizers are often applied monthly
March - September
- Organic fertilizers release slowly as bacteria in soil and temperature frees the nutrients
 - Alfalfa pellets – cheap at feed stores, have growth stimulant tricontanol
- Good compost adds nutrients and micronutrients, improves soil health



Organics

Example Amendments
Photo taken at Lyngso

- Organic fertilizers break down slowly, don't tend to burn, have micronutrients
- The USDA definition allows OMRI certification
- Most organics break down with bacterial action
- Many examples: Alfalfa, fish meal, bone meal, bat guano, rock phosphate, seaweed/kelp, feather meal, cottonseed meal, etc.



Organic Mixes Vary

- Organic fertilizers can include the big 3 (NPK)
- Not just nutrients but “probiotics” Biological enhancements
- Alfalfa Pellets- cheap and have triconanol (natural growth stimulant) – don’t get molasses added version



Coir and Amendment Blends

- Coir is Coconut husk fiber, a sustainable replacement for peat
- I use this blend for cuttings and as an amendment



Dry Granular “Chemical”

- Don't apply unless plant is growing actively, Mid-February in our area
- Don't apply after Oct 1.
 - Too early, wasted, leaches out
 - Too late, stimulates late growth when plant shouldn't be deadheaded and slows down before pruning
 - Work in or “drill” in (Soil Auger) under mulch in drip zone



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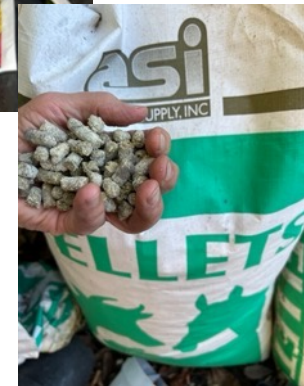


6-12-6



Time Release

- Apply as plants start growing
 - Makes it simple, does not burn
 - Augment after bloom cycle with Alfalfa, kelp and fish emulsion as desired
- I “drill” it in around the drip zone – 3” soil auger – easy!



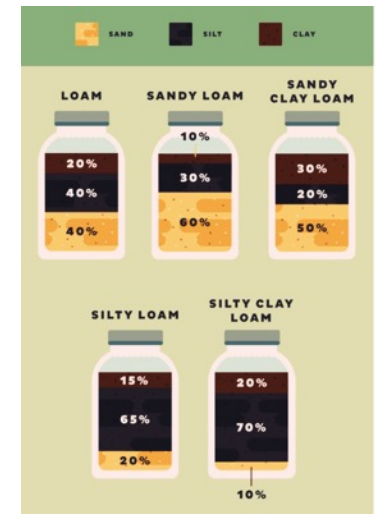
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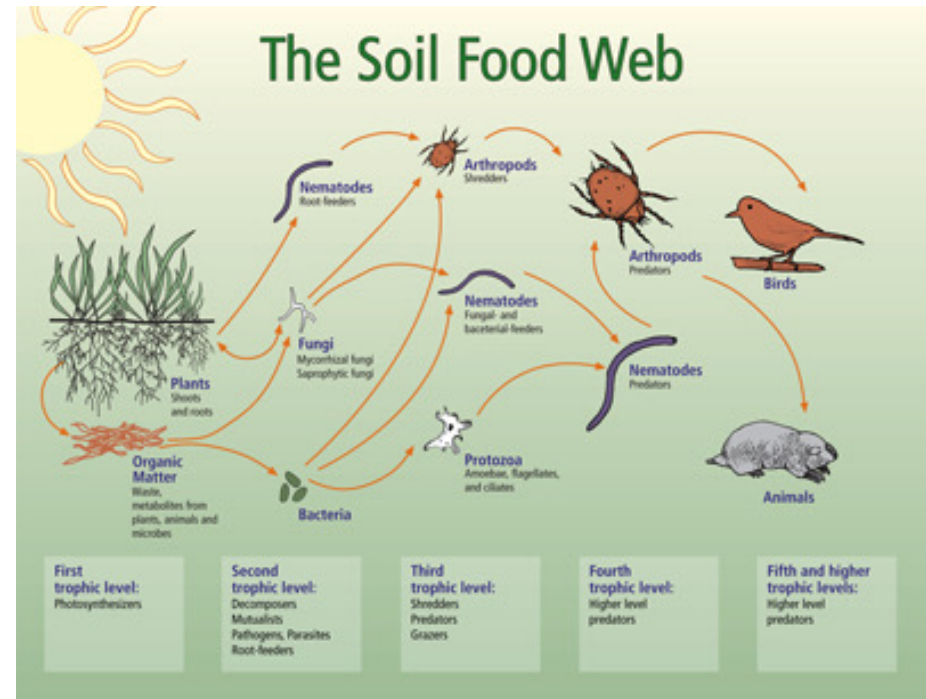
Soil Information

- Simple tests - may not need lab tests sent away
 - pH, using simple nursery kits
 - Jar Test (e.g, mason jar + water shake and settle),
 - Squeeze test and inspection, digging down and sampling
 - Take a handful of moist soil. Make a soil cigar. If it is like modeling clay and holds together and sticky, it is likely clay, if you can't make a long piece and it breaks easily it may be silty, if it crumbles it may be sand
- It should not smell, and the best soil is living soil worms, beneficial insects, beneficial fungi and bacteria to make nutrients available



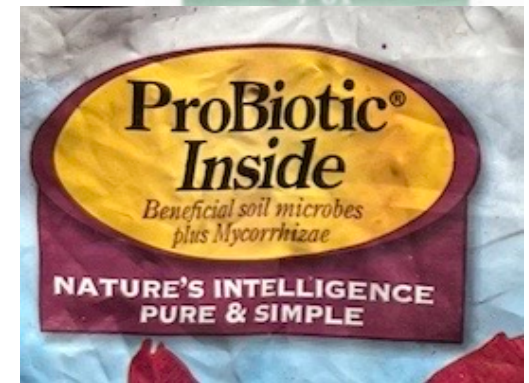
Soil Critters and Categories

- Mineral matter 45%, organic matter 5%, air 25%, and water 25%.
- A living soil helps material decompose, and makes nutrients available
- Living or once-living top layers plants, roots, fungi, microbes, animals (5%)
- Air, water and mineral matter (95%)



Add Life to the Soil

- Beneficial Fungi, bacteria can help roses some mixes contain these
 - Beneficial bacteria help break down organic matter to create usable nutrients
 - Worm castings add life
 - Mycorrhizal fungi are symbiotic fungus which brings water and nutrients to the plant and gets carbohydrates as food from the plant. Win/win! Many sources and some weird names (e.g., gnarly roots, Wildroot)



After Pruning, Compost - Later Mulch

- I like to add active live Compost after pruning, cleanup and dormant spray (turkey based is my favorite)
- See darker areas around plants
- Each large rose gets a ~ 5 Gallon bucket of compost at drip area
- Then I add arbor mulch - larger/ chipped wood mulch does not blow away



Water and Mulch

- When rapid growth starts and rains stop (~March) set timers to water deeply and infrequently
- 5 Gallon per week per large plant is usually enough in summer
- Mulch applied 3-5" deep around the bed with a clear space 6" from the plant crown reduces water use and weeds – improves tilth
- Add balanced organic fertilizers, compost under mulch, work into soil



Got Questions? Ask a Master Gardener!

Call our helpline at: (650) 276-7430

Email questions to: mgsmsf@ucanr.edu (please include your name, city, phone # (best time to call), question/description of problem, photos)

When our helpline offices reopen, visit us in three locations (closed on holidays). If bringing samples, please enclose in a sealed container.

| | | |
|---|--|--|
| Mondays 9am-4pm Elkus Ranch Conference Center 1500 Purisima Creek Road Half Moon Bay, CA 94019 | Wednesdays 10:30am-2pm San Francisco Botanical Garden (SFBG) Library (no samples please) 1199 9th Avenue San Francisco, CA 94122 | Thursdays 9am-4pm Veterans Memorial Senior Center 1455 Madison Avenue Redwood City, CA 94061 |
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Website: smsf-mastergardeners.ucanr.org

Follow us on social media for seasonal tips: @SFBayGardeners





- WWW.peninsularosesociety.org
- Meets third Tuesday, 7:30 PM (not July, Dec) Via Zoom
- During Pandemic, Zoom chats 2PM 1st 2nd Thursdays
- Normally, Veterans Center, 1455 Madison, Redwood City
- Send questions and issues or ask for a visit
consultingrosarians@peninsularosesociety.org
- YouTube videos search “ Peninsula Rose Society Youtube” for our Channel. Follow us on Facebook or Instagram
- Email studalton@gmail.com for questions on the presentation or www.peninsularosesociety.org “Resources”



Rose Videos on YouTube from Peninsula Rose Society

Rose Pruning Tools and Hedge trimmers

<https://youtu.be/kNS1dLkFZ-M>

Pruning Shrub Roses

https://youtu.be/G_Hy5_Ptz8o

Proper Cuts

<https://youtu.be/Vz6UX2fTM44>

Pruning Tree/ Standard Roses and Climbers

<https://youtu.be/vtE-zvpVmZ8>

Repotting Roses

<https://youtu.be/2fUs0xMfsEQ>



References

UCANR Roses: Cultural Practices and Weed Control Revised 7/19

<http://ipm.ucanr.edu/PMG/PESTNOTES/pn7465.html>

UCANR Roses: Diseases and Abiotic Disorders Revised 2/20

<http://ipm.ucanr.edu/PMG/PESTNOTES/pn7463.html>

UCANR **Roses**: Insect and Mite Pests and Beneficials Revised 10/19

<http://ipm.ucanr.edu/PMG/PESTNOTES/pn7466.html>

American Rose Society: Consulting Rosarian Handbook, July 2015, October 2019

<https://www.rose.org/>

American Rose Society: A Guide to Rose Diseases and their Management

<https://26d66698-46f2-4fb6-988d>

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