

Getting the most out of your roses

Tim Phillips, Tall Fescue Breeding

Department of Plant and Soil Sciences

University of Kentucky

July 10, 2024



Knock Out AARS in 1999

‘Raised
the bar’
for new
roses.

Knock Out roses: New York Botanical Garden, 2003



U.K. Arboretum rose gardens contained ~2000 varieties.



Rose basics: you get more from roses if you give them more: .

SUN
WATER
FERTILIZER
ATTENTION



U.K. Arboretum rose trial beds, 2011-2013





Dwarf version of
Double Knock Out

Many older rose varieties are as good as Knock Out



Chuckles, Floribunda from 1956

Albertine, once-flowering climber



Rose maintenance:

- Suggested tasks, not requirements.
- Different roses require different inputs.
- What we expect from roses vary.
- Lower maintenance roses can be beautiful.

Rose Care

Buy only healthy plants of good varieties.

- Grade # 1 bushes are better than # 1.5
 - In person is great when possible (local nurseries)
- “Cheap” roses are often mislabeled and/or infected with rose mosaic virus
- High-quality local or mail-order plants are better than ‘big box’ sources with much greater selection in varieties.



International
Rose Test Garden





Rose Care

Grafted vs. own-root plants

- Grafted plants used to be the only choice for some varieties, but things have changed.
- Own-root plants are more winter-hardy.
- Rooting cuttings is easy.

Rose Care: More sun = more rose flowers

Where to plant new rose bushes

- Sunnier is better than shadier locations.
- Avoid crowding by other plants (shrubs, trees, grass, etc.).
- Avoid dead air spaces (corners of fenced areas, against a house).
- Minimum of 4 hours sun to get decent flowering.
 - 8 hours will give 2X as many flowers.
 - 12 hours- even more, but they won't last as long.

Rose Care

Enriching soil for roses

- Roses grow best in fertile soil with excellent drainage.
- Organic matter helps with fertility, water-holding capacity, and aeration. More is better!
- Add sand to improve drainage and aeration, or raise the bed.
- Have soil tested for pH, nutrients.

Rose Care

Planting new rose bushes

- Soak bare-root plants in water overnight.
- Dig a large hole.
- Use soil, sand, and organic matter in equal parts to fill in the hole.
- Plant the bud union at or 1-2" below soil level.
- Water the soil when hole is half-full of soil.
- Add mulch or soil to cover the crown until growth starts.

**David Austin's nursery/display rose gardens in
Albrighton, Shropshire, England, August, 2007.**



Rose Care

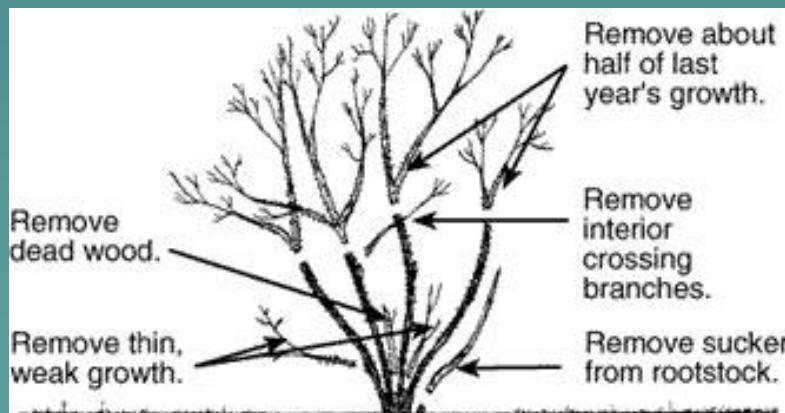
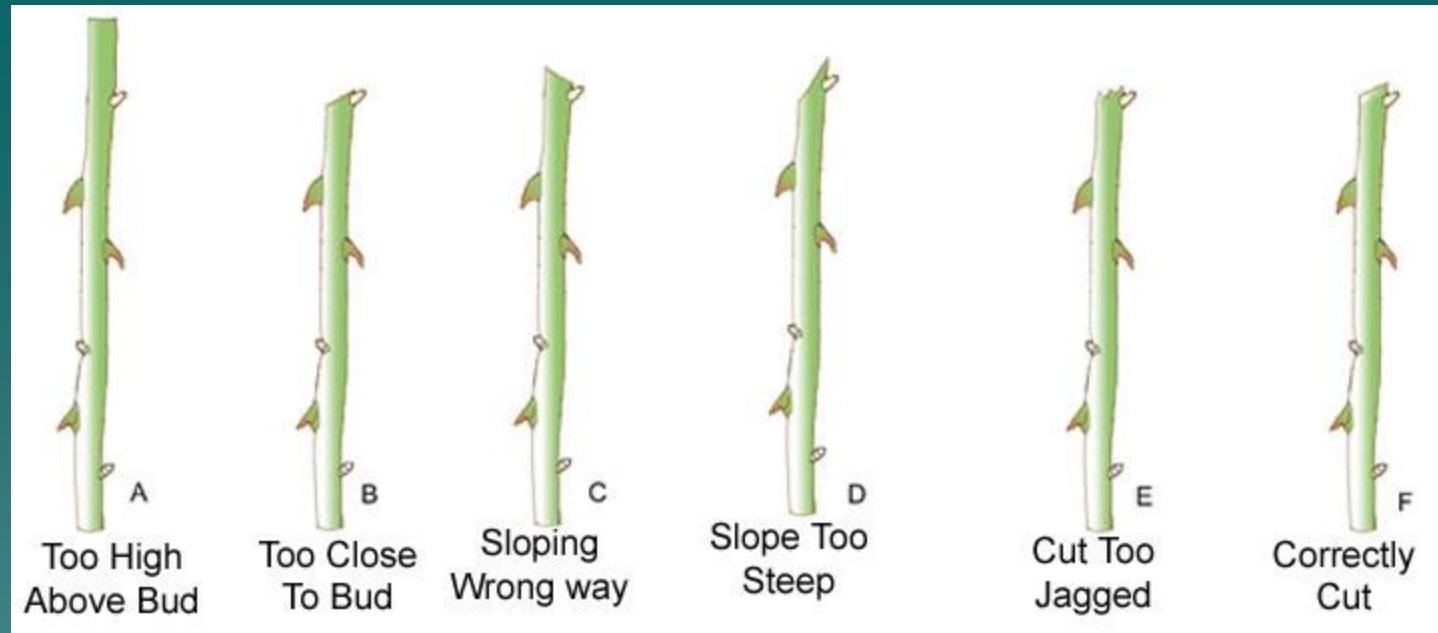
Pruning rose bushes

- New plants should be pruned (roots too).
- Weak plants should be pruned lightly.
- In spring, remove any winter-damaged canes -
Pith should be white, not brown.
- Floribundas and shrubs can have longer canes.
- Old garden roses and climbers should be
pruned after first flowering – later in June.

Rose Care

Pruning, continued

- Hybrid teas should have 3-6 canes left after pruning.
- Canes and buds should be pointing outward.
- Cut canes at a slight angle, 1/4" above buds.
- Avoid crossing canes.
- Remove blind growth and twiggy canes.
- Harder pruning is better than underpruning.



Rose Care

Watering rose bushes

Wilting is not good for roses.

- Water up to 3 times per week if it doesn't rain.
- General rule: 1 inch of rain, or 6-8 gallons per bush per week (ideal).
- Use 'gray water' during droughts.
- **Mulching** conserves water.
- More organic matter in the soil helps.
- Avoid wetting leaves in the evening.

Rose Care

Fertilization of rose bushes

- Roses can use lots of nutrients, but not all varieties require the same rates.
- Epsom salts help roses grow better ($MgSO_4$).
- Time-released fertilizer can be used in April or May (3-4 month activity for Osmocote).
- Organic fertilizers work well -manures, compost, alfalfa meal, bone meal, etc.
- Liquid fertilizer is good for steady growth.

Rose Care

Spraying rose bushes

- **Black spot** and powdery mildew are our main concern.
- Only spray insecticides when necessary;
-fungicides can be used preventatively.
- **ALWAYS** read the label and be **SAFE**.

Kew Gardens, near London, England



Rose Care

Fungicides that I have used on roses

- Funginex
- Daconil
- Immunox
- Lime-sulfur spray
- Banner Maxx
- Mancozeb
- Cleary's 3336





Some roses are resistant to blackspot ('Smooth Lady')

Rose Insect pests

Aphids- usually spring, fall problems

Rose Slugs- spring, ‘Swiss cheese leaves’

**Thrips- late spring, worse on white,
yellow, light pink roses.**

Japanese beetles- 3 weeks in mid-summer



Japanese beetles love roses, especially flower buds, petals, and tender new growth.

Sevin kills Japanese beetles, also beneficials

Hand-gathering, ‘soapy bath’ technique can work.



Rose Care

Insecticides and Miticides

- Orthene
- Imidacloprid
- Sevin (good control of Japanese beetles)
- Malathion
- Mavrik
- Avid
- Water

Rose Rosette Disease

Leaf-curl mites are the vector for rose rosette virus, a devastating ‘new’ problem.

Rose rosette disease results in death of most roses.

Control is difficult- eradication of infected plants is recommended.

Rose Rosette Disease is devastating Knock Out roses in central KY.





Rose Rosette Disease

Leaf-curl mites could be controlled, if
when knew when to spray.

Pruning out infected branches early in an
infection can be successful.

When basal canes are infected, dig up the
plant and dispose of it.

We lose ~50-100 roses per year to RRD at
the UK Arboretum rose gardens.

Rose Care

Fall care for roses

- Stop fertilizing by Labor Day.
- Slow or stop deadheading.
- Do keep watering and spraying until frost.

Rose Care

Winterizing roses

- After a few freezes, trim back plants to 2-4'.
- Mound mulch around crowns after ground has frozen.
- Spray with lime-sulfur and dormant oil.
- Spray with Wiltpruf to prevent drying out of canes.

Rose Care

Some roses are easier to grow

- Carefree Beauty, other Dr. Buck roses, bred in Iowa
- Knockout and relatives (children and grandchildren)
- Bonica, AARS in 1984, Royal Bonica
- New Dawn climbing rose, PP#1, 1930
- Rugosa roses
- Iceberg, Chuckles (floribunda)
- David Austin English roses, Bailey's roses

Rose Care

Annual Activities for Maintaining Roses

January: - Order new varieties from catalogs or online.

 - Mulch for winter protection (almost too late!).

February: - Spray with dormant oil and lime-sulfur fungicide.

 - Make new beds.

Rose Care

Annual Activities for Maintaining Roses

March:

- Begin pruning ~ March 17.
- Plant bare-root roses.

April :

- Fertilize when growth starts.
- Start spraying for pests.

Rose Care

Annual Activities for Maintaining Roses

May:

- Spray regularly.
- Fertilize.

June :

- Water when needed.
- Watch for insects.
- Keep spent flowers removed.

Rose Care

Annual Activities for Maintaining Roses

July:

- Fertilize.
- Water.
- Spray.

August :

- Fertilize one last time in late August (or later).
- Water.
- Spray.

Rose Care

Annual Activities for Maintaining Roses

September: - Stop cutting spent flowers.

- Spray.

- Water.

October : - Spray.

- Think about mulch source.

- Water.

Rose Care

Annual Activities for Maintaining Roses

November:

- After two hard freezes, cut back canes to 2-4'.
- Water.
- Get ready to mulch around bushes.

December :

- Mulch ~12 inches around crowns.
- Spray with antidesiccant.