

Roses



February 4, 2014

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Rose - History



- 1985 – Rose became “National Floral Emblem of the US”
- Oct 7, 1986 – Rose became official flower of the US –signed by President Reagan in White House Rose Garden ceremony



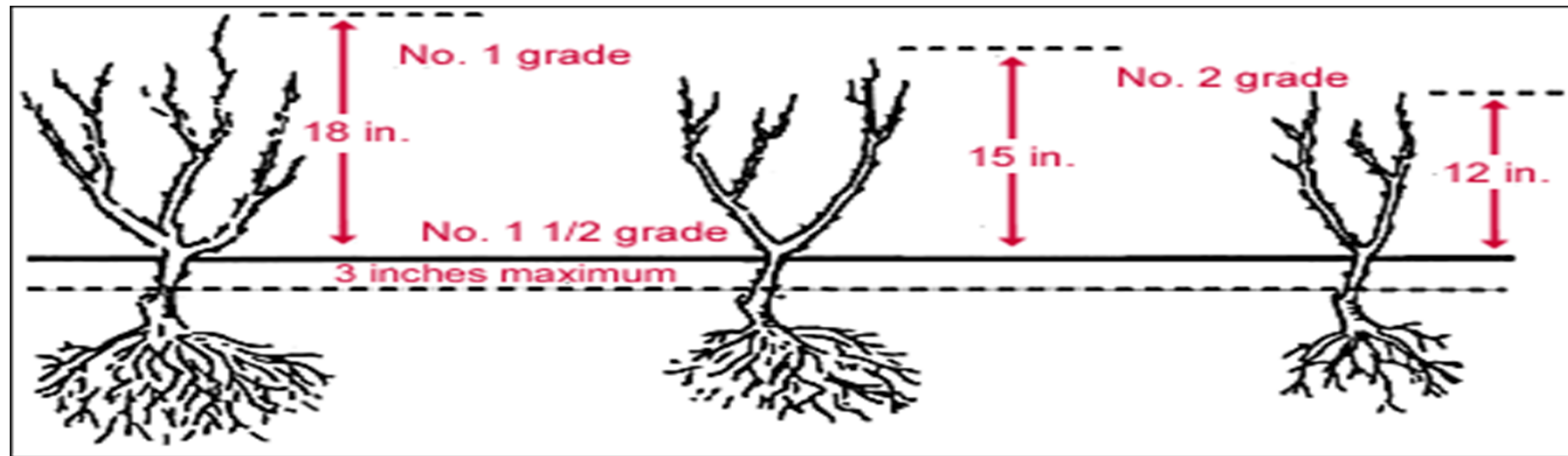
What We Will Cover

- Grades of Roses
- Selection
- Planting
- Fertilizers
- Troubleshooting Rose Problems
- Nutritional Deficiencies
- Pruning Roses



Bare Root Grades

American Nursery Standard Rose Grades



Grade 1: 3 or more canes, abt $\frac{3}{4}$ " diameter & no more than 3-4" between graft union & top of roots; large, well developed roots; must be 2 yrs old when harvested from field

Grade 1 1/2: 2 strong canes & w/care will catch up to Grade 1

Grade 2: Bargain –often with small canes, substandard



Rose Selection



- Select a plant that will fit the space size wise and if climbing, has support
- Select plants that are adapted to your climate (heat resistance in AZ more important than cold tolerance)
- Select plants that are resistant to diseases and insects



Bare root



Packaged



Containerized



Types of Roses



- **Hybrid Teas**

Most popular; long stem w/ single flower

- **Floribundas & polyanthas**

Many blooms per stem, shrub rose



Polyantha



Floribunda



Grandifloras - *Cross between hybrid tea and floribunda;
masses of large flowers*



Shrub Roses

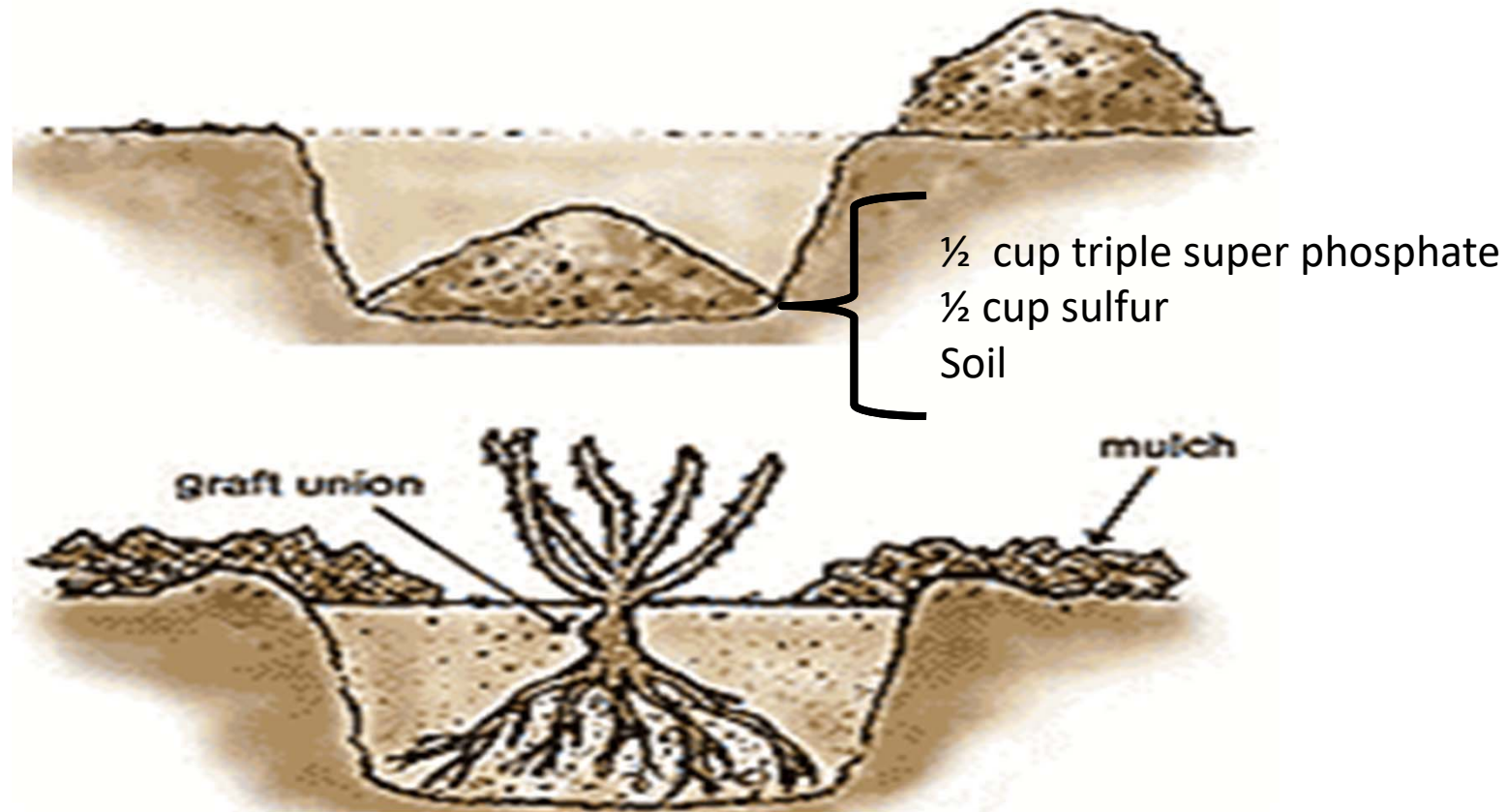


Climbing Roses



Miniature Roses

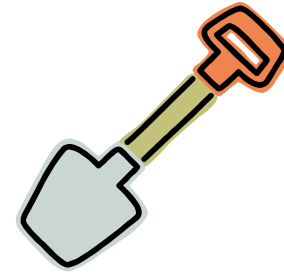
Planting Bare-Root Roses



Soil = 50% organic matter &
50% native soil (e.g. clay)



Digging the Hole



- Dig holes at least 3 ft apart in location with at least 6 hrs of sunlight/day
- Dig hole at least 18" to 24" deep and as wide
- Put soil and amendments in the hole in the shape of a cone



Planting Bare-root

- Soak entire bush in water – 8 to 24 hrs prior to planting
- Trim canes back to 8 to 10 inches to outward facing bud eye
- Cut off damaged roots
- Spread roots over cone when planting
- Keep bud union just above soil level
- Cover roots with compost/soil mixture
- Water slowly and deeply to remove air pockets & to keep roots from drying out
- Firm up soil around bush, but don't compact it
- Can top-dress with mulch



Planting Container-grown

- Same size hole as bare-root
- No need for cone, but can still add triple super phosphate and sulfur
- Carefully remove from container, try not to disturb root ball
- Carefully straighten coiled roots



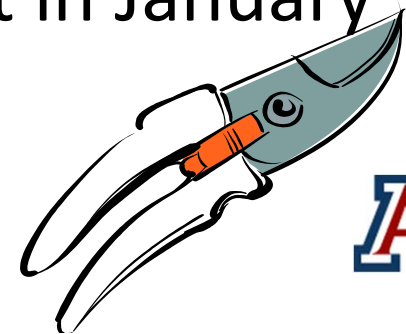
When to Plant & Prune – *Yavapai County*

Prescott, Prescott Valley, Chino Valley

- Plant bare root – February / March
- Plant container grown – Start in February
- Prune – Start March

Sedona, Cottonwood, Verde Valley

- Plant bare root – February / March
- Plant container grown – Start in January
- Prune – Start February



Fertilizers



- Ideal pH for roses is 6.0 to 6.5 –
6.5 to 7.0 OK for Yavapai County
- Fertilize newly planted roses **AFTER** first bloom
- Epsom salt for plant tissue and roots; helps stimulates cane growth
- Systemic fertilizer OK if don't need show roses
- Roses love nitrogen (e.g. fish emulsion)
- Organic or chemical fertilizers OK (organic need warm soil and work more slowly than chemical)



Fertilizing Established Roses

March – after pruning

- Triple Super Phosphate for blooms
- Organic material (e.g. bone meal, compost)
- Non-organic (systemic rose food)



Mid-April through September

- ½ cup Epsom salt in mid-April & twice again this year
- Systemic rose food (follow directions – some every 6 weeks)
- Fish emulsion monthly

Don't fertilize after September



Enjoying Cut Roses

New plants

Cut $\frac{1}{4}$ above outward facing five-leaflet; leave as many leaves as possible on the plant



Established plants

Leave 2 five-leaflet leaves on shoot



Cut Flower Preservative

2 Tbsp fresh lemon juice

1 Tbsp sugar

½ tsp bleach

1 quart warm water



Deters bacteria & mold growth, provides sucrose to feed flowers, & acidifies water to help stems take up more water



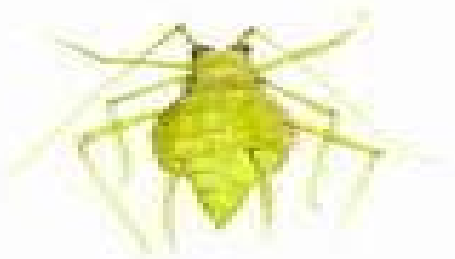
Problems

- Aphids
- Thrips
- Cane Borers
- Spider Mites
- Leaf Cutter Bees
- Powdery Mildew
- Crown Gall
- Rose Mosaic Virus
- Nutrient Deficiencies



Aphids

Aphid colors could be green, yellow, brown, red, or black



Potential damage: curled, yellow, & distorted leaves, stunted shoots, honeydew which turns black w/ growth of sooty mold fungus. Ants are attracted to honeydew.



Thrips



Damage



Aphid and Thrips Controls

- Monitor for beneficials (lady bugs, lacewings, etc.)
- Destroy infected buds & blooms
- High pressure hose
- Home remedy (1 TBSP dish washing liquid or baby shampoo, 2 drops vegetable oil, 1 gallon water)
- Yellow sticky tape (thrips)
- Insecticidal soap
- Neem



Cane Borers



- Tunnels into canes soon after winter pruning
- If hole present, cut back until cane is healthy
- Use wood glue to seal wound if desired



Spider Mites

- Small, on leaves
- Sometimes webbing
- Hot, dry weather
- Often increase in numbers if a broad spectrum pesticide killed beneficials
- Damage to buds cosmetic



Control with strong stream of (soapy) water



Leaf Cutter Bees

- Circular leaf cuts
- Damage only cosmetic



Powdery Mildew

- Cool damp nights, warm days, spread by wind; poor air circulation
- Mostly on leaves as small blisters followed by white or gray powdery spots
- Manage with good gardening practices, cleanup old leaves & pruned material, hard spray of water; **spray with fungicide when first noticed**



Preventative: 1 Tbsp baking soda, ½ tsp liquid soap, 1 tsp horticulture oil, 1 gal water



Crown Gall

- Caused by *Agrobacterium tumefaciens*
- Infects through wounds
- Plant gradually declines as gall develops at base of plant
- Remove and destroy infected plants
- Don't replant roses in this soil



Mosaic Virus

- Spreads only through infected stock
- Not transmitted through pruners or shovels
- Weakens plant over many years
- No cure



Beneficial Insects



Hoverfly

Lacewing



Larva eats aphids





Ladybug Stages



Mantid



Egg casing



Iron / Nitrogen Deficiency

Iron Deficiency –
affects newer leaves
– apply chelated iron

Nitrogen Deficiency
– affects oldest
leaves – apply
nitrogen

Chlorosis

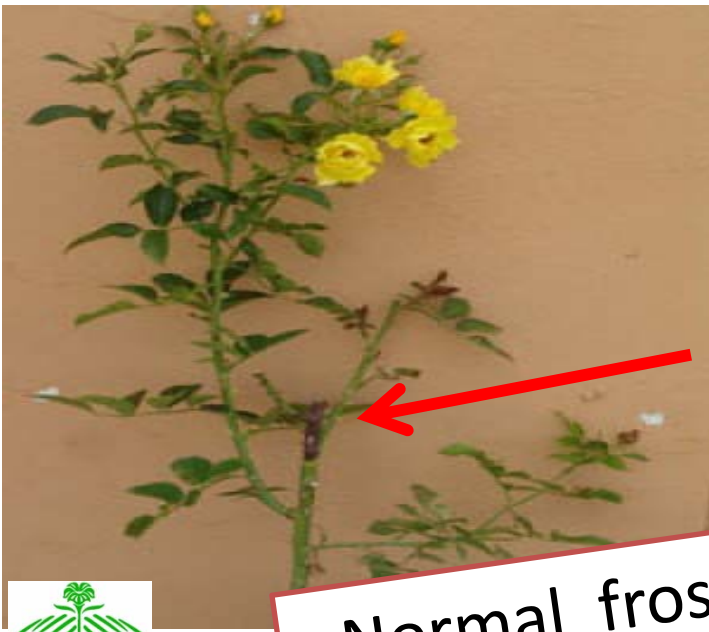
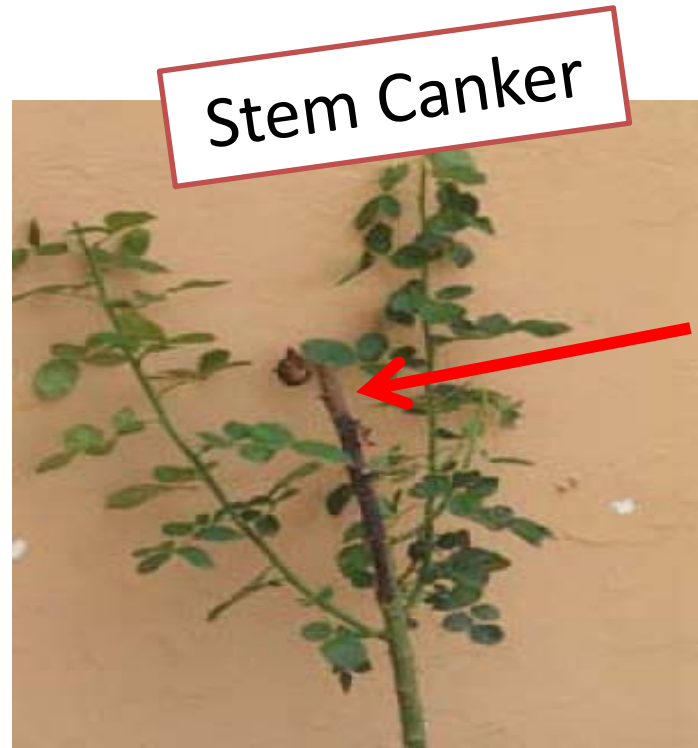


Magnesium Deficiency

Edges of old leaves turn yellow,
apply magnesium sulfate (epsom
salt) to rose bushes



Similar Cane Symptoms

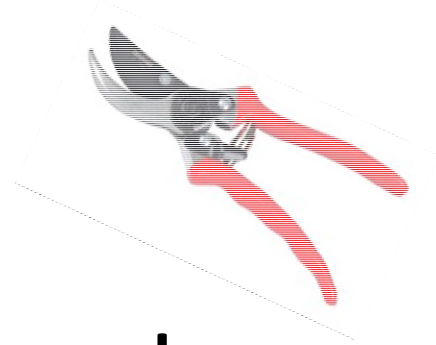




Pruning



Why Prune



- Winter pruning (when dormant) - to stimulate new growth
- Dead-heading (through growing season)– to stimulate more flowers



Late Winter Pruning

Remove:

- crossing branches
- dead canes
- diseased canes
- suckers below graft union
- stems less than pencil size
- all leaves



Crossing



Dead & diseased canes





Cut canes above a bud,
slanting away from bud

Right



Wrong



Wrong



To generate new growth on old wood -

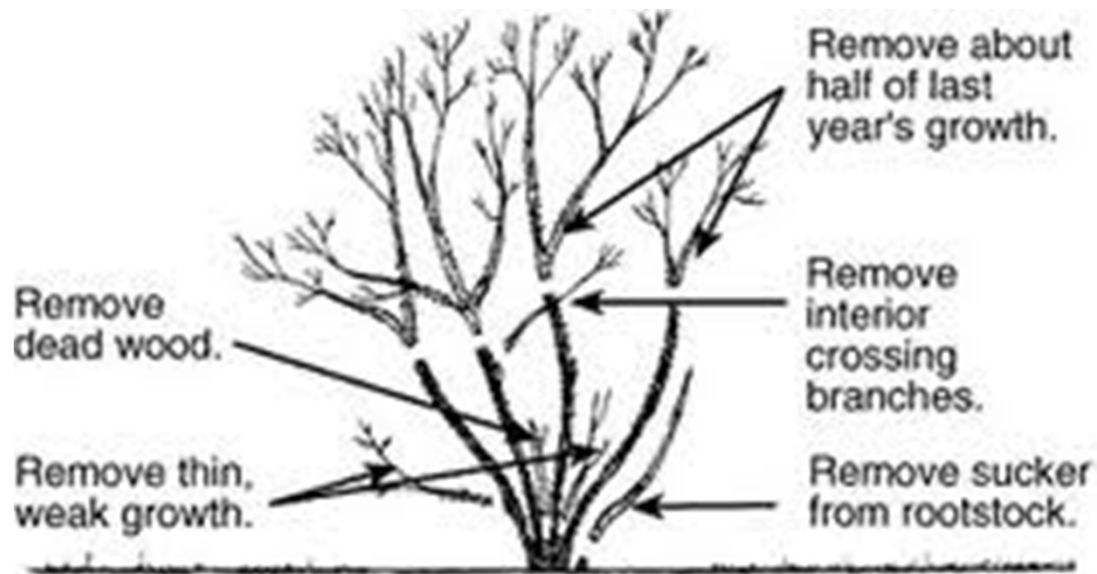
- Use wire brush to scrub old gray crusty wood
- Put 1 cup epsom salt on soil and water in



Hybrid Teas



- Leave 5 to 8 canes on vigorous bushes; can leave up to 12 canes if good spread
- Amount to prune varies w/ available space as plants grow older; general rule – cut back new cane growth about 1/3



Pruned Hybrid Tea



Grandiflora

- 4-8 ft tall
- Leave 3-5 canes
- Cut height back by $\frac{1}{3}$ to $\frac{1}{2}$



Floribunda



- Often need thinning in center
- Can leave more canes than Hybrid Tea and Grandiflora
- Take less than 1/3 off the top



Pruned Floribunda



Carpet Roses



Shear off or cut back so that it is about a foot tall or cut off the top two-thirds of the plant (can use hedge shears or a hedge trimmer)



Climbers

- Leave major canes to support desired shape
- Cut side branches off major canes to encourage more new growth (flowers)
- Remove all leaves
- Cut crossing, dead canes from base



Safety



- Wear sunblock to protect from UV rays
- Get tetanus shot every 10 yrs – working with soil
- Wear long sleeves, gloves, eye protection
- If spraying chemicals, wear mask and wash clothing separate from other laundry
- Wear closed shoes – no open toes when gardening
- Never spray chemicals if wind is blowing
- Best to spray in early morning (cool and air is still) – don't spray if over 80°
- Try to use organic sprays to protect the good bugs
- Be environmentally friendly!!!!



More than a symbol of love -

Color is definitely a personal preference. While the red rose may be the first to come to mind, a rainbow of colors exist. The chart on the next slide matches some of the most popular colors with sentiments they express.



| Color | Sentiment |
|----------------------|-------------------------|
| Red | Love, respect |
| Deep pink | Gratitude, appreciation |
| Light pink | Admiration, sympathy |
| White | Reverence, humility |
| Yellow | Joy, gladness |
| Orange | Enthusiasm, desire |
| Red and yellow blend | Gaiety, joviality |
| Pale blended tones | Sociability, friendship |



Resources

- American Rose Society

<http://www.ars.org/>

- Rose diseases & pests

<http://sactorose.org/rosebug/>

Created by Yavapai County Master Gardeners:
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Questions

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