

ALL ABOUT ROSES

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AND ENVIRONMENTAL SCIENCES

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ROSA ARCUS "RAINBOW ROSE"




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ROSE HISTORY



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TYPES OF ROSES

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TYPES OF ROSES: KNOCKOUTS



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TYPES OF ROSES: CLIMBING ROSE



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CLIMBING MINI 'CANDY CANE' AND 'RAINBOW'S END'



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CLIMBERS 'FOURTH OF JULY'




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TYPE OF ROSES: EVERBLOOMING CLIMBERS




- ✓ Less vigorous
- ✓ Slower grower
- ✓ Heavy spring flowers
- ✓ MIGHT bloom in fall
- ✓ Winter hardy, disease resistant

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TYPES OF ROSES: RAMBLERS




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TYPES OF ROSES: RAMBLERS



Rosa 'Open Arms'



Rosa 'Phyllis Bide'




'Ghislaine de Feligonde'

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COMBINATIONS: WITH CLEMATIS




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TYPES OF ROSES: HYBRID TEAS

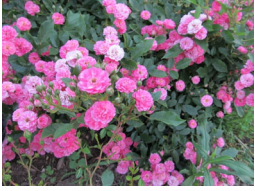



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TYPES OF ROSES: POLYANTHA



'Lovely Fairy®'

'Grumpy Rose'

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FLORIBUNDA – 'ANGEL FACE' AND 'ICEBERG'



'Angel Face'

'Iceberg'

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FLORIBUNDA



'Hot Cocoa'

'Mardi Gras'

'Tenacious'

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GRANDIFLORA

'Queen Elizabeth'




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GRANDIFLORA




'Lagerfeld' 'FAME!'

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CLASSIFICATION OF FLOWERS



Single
4-8 petals

Double
17-25 petals

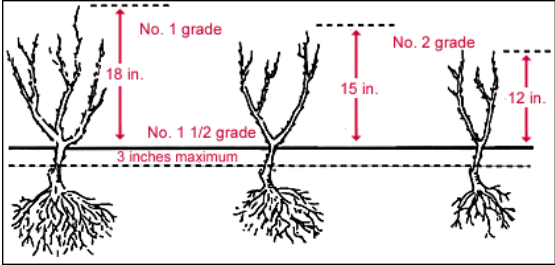
Semi-double
9-16 petals

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GRADES



No. 1 grade
18 in.

No. 1 1/2 grade
15 in.

No. 2 grade
12 in.

3 inches maximum

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PURCHASING




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GRAFTED VS OWN-ROOT ROSES



graft joint

no graft joint

Grafted bare root rose

Own Root bare root rose

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GRAFTED ROSES



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GROWING CONDITIONS



6<
morning

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PLANTING NOTES

1. Dig hole to allow full spread of roots. Separate topsoil from subsoil.
2. Form a cone-shaped mound of prepared topsoil in center of hole. Firm slightly.
3. Spread roots over cone-shaped mound. (a). Position plant so bud union (b) is slightly below soil level (c).
4. Water, then fill hole with soil, mounding it up around the base of each plant.

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TRANSPLANTING ROSES

- During dormancy (Dec-Mar)
- Cut 1/3 canopy back
- Move as much of root ball as possible

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WATERING

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FERTILIZING

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PEST CONTROL BEGINS WITH YOU!



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This slide features four images related to pest control: a watering can pouring water, a garden trowel in soil, a broom on a path, and a close-up of a plant stem.

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DISEASE: BLACK SPOT



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This slide shows three examples of black spot disease on leaves: a large yellowed leaf with prominent black spots, a cluster of leaves with small dark spots, and a close-up of leaves with dark spots.

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DISEASE: CERCOSPORA LEAF SPOT & RUST



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This slide displays two types of Cercospora diseases: a leaf with dark, irregular spots (leaf spot) and a leaf with orange, powdery spots (rust).

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DISEASE: POWDERY MILDEW



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This slide shows two examples of powdery mildew: a leaf with white, powdery spots and a rose bud with white, powdery spots.

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OTHERS...

Rose mosaic virus



Botrytis blight



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ROSE ROSETTE






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PESKY INSECTS

Aphids



Japanese beetles




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PESKY INSECTS

Cane borer



Leaf cutter bee




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OTHERS...

Rose midge




© Robin Rosetta, Oregon State University


Sawfly larvae



Thrip



Spider mite




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BENEFICIALS


Adult




Egg




Larva




Pupa




Adult




Larva



Eggs



Pupa



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MAINTENANCE

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WHAT'S THE DIFFERENCE BETWEEN PRUNING AND DEADHEADING?


- One is a trim, and one is a major cut


Before



After







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HOW DO I PROPERLY DEADHEAD?

- ✓ GOOD – Do nothing. Modern roses are bred to rebloom.
- ✓ BETTER – Pop off old blooms or snip off the tops with pruners.
- ✓ BEST – Ideally, cut at a 45-degree angle ¼ -inch above a five-leaflet leaf.

Don't be afraid. You're NOT going to hurt your roses.




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WHEN AND HOW SHOULD I PRUNE MY ROSES?

- ✓ Always prune roses in spring.
- ✓ Good rule of thumb - wait until forsythia has started to bloom.
- ✓ Do not prune in the fall. In very windy areas, just lightly prune the plant to about two feet to prevent wind damage during the winter.
- ✓ Don't worry about pruning perfectly. Use your hedge clippers!




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WHEN AND HOW SHOULD I PRUNE MY ROSES?

- ✓ Remove 1/2 to 2/3 of the plant
- ✓ Remove dead wood
- ✓ Take out any weak or crossing branches
- ✓ Cut off any root suckers
- ✓ Prune to an outside eye



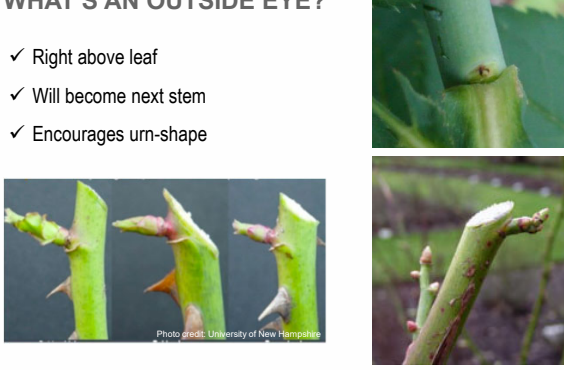
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WHAT'S AN OUTSIDE EYE?

- ✓ Right above leaf
- ✓ Will become next stem
- ✓ Encourages urn-shape



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WHEN AND HOW SHOULD I PRUNE MY ROSES?

For hybrid teas, grandifloras, floribundas, and minis:

- Prune hard in early spring (1/2 – 2/3 of plant height)
 - Remove all dead canes, small weak canes
 - Leave 3-5 healthy stout canes spaced evenly
 - Cut those back to 3-5 outward facing buds

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WHEN AND HOW SHOULD I PRUNE MY ROSES?

For repeat-flowering shrub roses:

- Leave for 2-3 years
- Prune by 1/3 method
 - In spring remove 1/3 of oldest canes
 - Identify about 1/3 of newest canes to keep
 - Remove the remaining canes



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WHEN AND HOW SHOULD I PRUNE MY ROSES?

Old Garden Roses

- Once bloomers – AFTER flowering
- Repeat flowerers – Before flowering

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WHEN AND HOW SHOULD I PRUNE MY ROSES?

Climbers – Early spring

Ramblers – AFTER flowering




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HOW DO I PROTECT MY ROSES IN THE WINTER? Option 1: Mounding Soil



1.

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HOW DO I PROTECT MY ROSES IN THE WINTER? Option 2: Wire Mesh Collar



Photo credit: University of New Hampshire

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HOW DO I PROTECT MY ROSES IN THE WINTER? Option 3: Burlap



Photo credit: University of New Hampshire

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ALONG COMES KNOCK OUT

- Changed rose industry
- Black spot resistant
- Positioned as ever-blooming perennial
- Marketed to landscape industry
- Well-known, heavily promoted by media




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WHY BUY A PATENTED ROSE?

Aug. 14, 1985. U.S. PATENT OFFICE. Plant Pat. 1.
 ROSE OF SHIRAZ.
 Plant Pat. 1, 1985.



UNIVERSITY OF CALIFORNIA,
 DAVIS, CALIF. 95616.



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WHY BUY A PATENTED ROSE?

- Represents 100+ years' rose breeding experience
- Superior than non-patent counterparts
 - Better bloom form
 - Shorter bloom cycle
 - Much better disease resistance
 - Greater vigor and growth habit
 - New colors and fragrances

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The Blue Rose

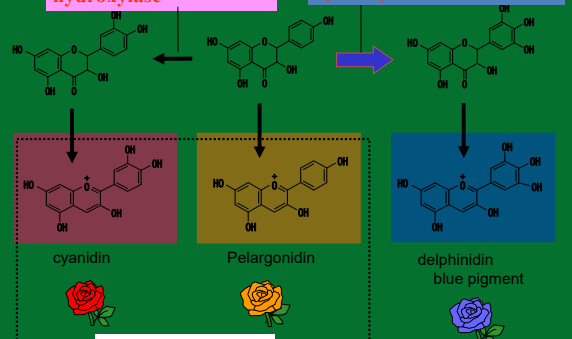
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Biosynthetic Pathway of Pigments

Flavonoid 3'-hydroxylase

Flavonoid 3', 5'-hydroxylase



The pathway of roses

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Roses Are Red, Violets Are Blue

Lavande Madam Violet

AOZORA (Blue Seiryu sky) (Blue Dragon)

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Roses for the Midwest

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BEST ROSES FOR THE MIDWEST

Disease Resistant Collections








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BEST ROSES FOR THE MIDWEST

EASY-TO-LOVE COLLECTION

 Cinco de Mayo Floribunda	 Easy Does It Floribunda	 Easy Going Floribunda	 Easy on the Eyes Shrub
 Easy Spirit Floribunda	 Easy to Please Floribunda	 Julia Child Floribunda	 Livin' Easy Floribunda

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New Roses

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WEEKS ROSES 2019



Celestial Night
Floribunda



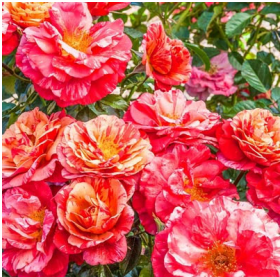
Life of the Party
Floribunda

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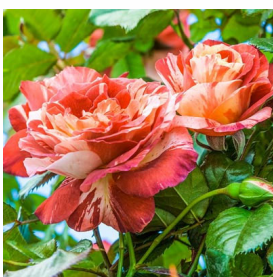
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WEEKS ROSES 2018



Frida Kahlo
Floribunda




Tropical Lightning
Climber

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WEEKS ROSES



Ketchup and Mustard
Floribunda




Ebb Tide
Floribunda

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2019/2020 New Roses



Oh Happy Day™ Eleganza®
Hybrid Tea Rose
Jackson Perkins




Gabriel Oak
David Austin English Rose

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Places to See Roses




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Roses in Ohio



Park of Roses (Whetstone Park)
Columbus



Kingwood Center
Mansfield

English Garden Farm
Jamestown

Lange Estate/Transfiguration
Center for Spiritual Growth
West Milton

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Roses in United States

- San Jose Municipal Rose Garden
- Longmont Memorial Rose Garden
- Elizabeth Park
- The Berkeley Rose Garden

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82