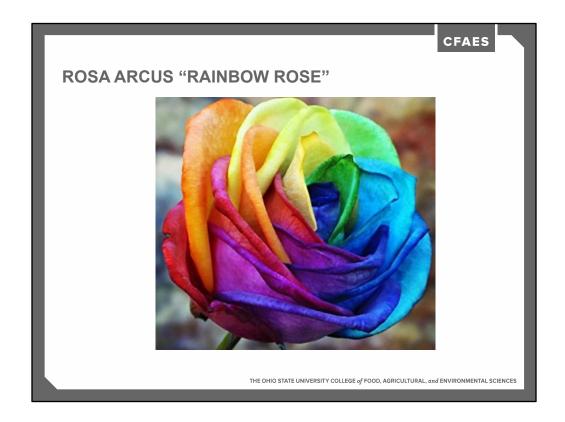


Hello, I am Amanda Bennett, Agriculture and Natural Resource Educator with Ohio State University Extension. You are probably here today because you'd like to learn a little more about roses. Maybe they seem a little intimidating, or the choices are overwhelming or the thought of pruning them has you paralyzed. I hope you'll get from this session today some confidence in care and maintenance, be able to chose the right variety for your growing situation and goals and come away more confident than before on how to grow quality roses with ease.



Rosa arcus (latin for rainbow).

There are so many different varieties of roses according to their shapes, colors, growing habit, etc that to undertake the task of classifying them is quite the ordeal. With over 6,500 species of roses and more being introduced each year, they arguably are the Queen of Flowers. So, while we don't yet have this Rosa arcus (which is the Latin for Rainbow rose), I wouldn't be surprised if someone is trying it ©

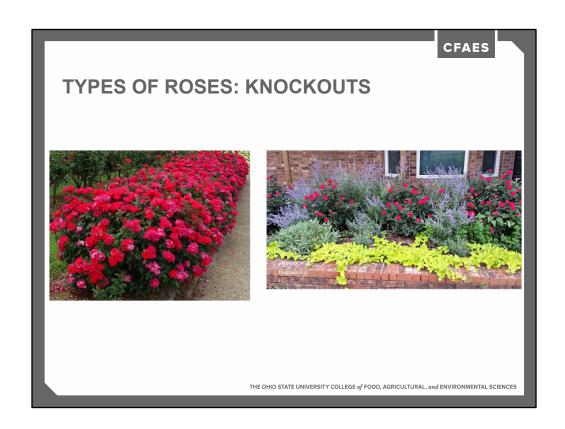
We'll take a look at some of the different classifications, how to buy them, tips on planting and maintaining roses. And then we'll talk about protecting them from the winter, roses for our part of the world, and what is next in the rose world.



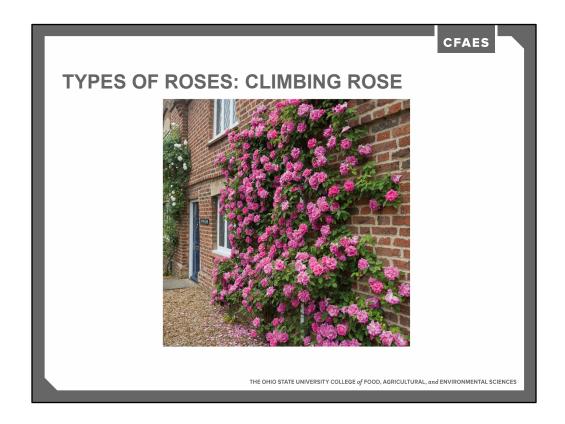
Roses have a rich and very deep history. The Ancient Greek poetess Sappho who lived about 6 centuries before Christ called the rose the "Queen of Flowers." Nero, Emperor of Rome in 54-68 AD — was said to be fond of staging rose feasts. It is reported that he spent the equivalent of \$150,000 to provide roses on a single banquet.

In the early 19th Century, Empress Josephine, wife of Napoleon of France, requested that a plant of every specimen in Europe be represented in her garden. So, French rose growers were greatly inspired and soon began growing new varieties.

We are going to take a look at some of the more common (and some uncommon) types of roses, examples of each and how their care might differ from each other.



Most people who are even vaguely interested in roses have most likely heard of "knockouts." Introduced in 2000, they were the lazy gardener's dream. No disease, no watering, no fertilizing, etc. Blooms from spring until frost, cold hardy. Well, not all of that is exactly true but they are pretty good.

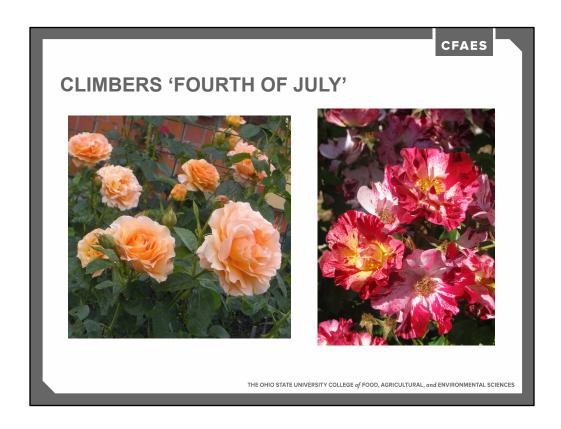


Climbing rose is a general term for roses that produce long, vigorous canes that cannot support their own weight unlike other plants that climb which have tendrils. These can be used as ground cover if there is no supporting structure. They are not as vigorous as rambling roses, which we'll cover in a bit. Climbing roses, grow from 6-12 feet long and spread 3-4 feet wide. They are well adapted to small gardens and can produce an abundance of large, single or clustered often fragrant flowers. They repeat flower throughout summer and fall – two or more times a season first on old canes, then on new growth. Some cultivars bloom continuously throughout the season. Because of interbreeding there are a number of ever-blooming climbers that produce from early summer until the first frost.

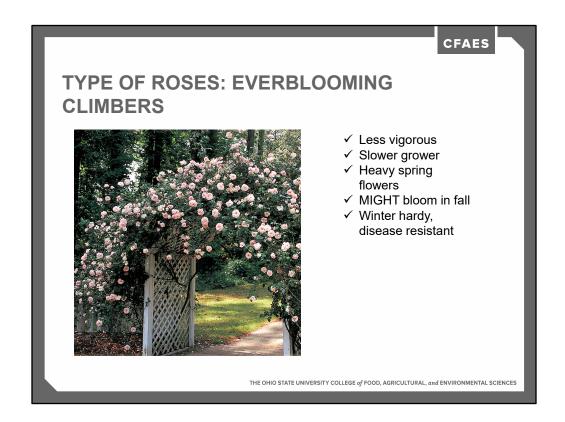
These type of roses need annual pruning and training.



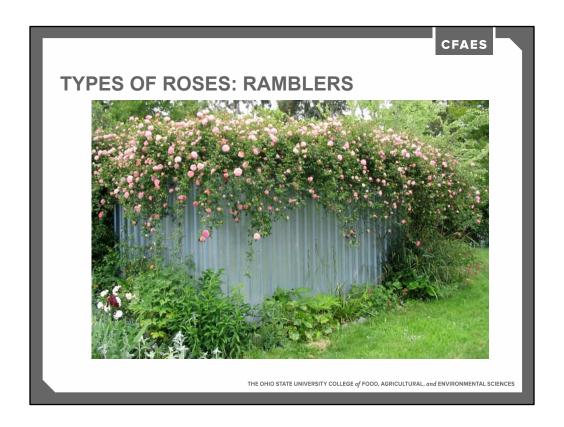
Some notable examples of climbing roses are: 'candy cane' and 'rainbow's end'



Other examples include: 'Polka' which is an apricot blend and 'Fourthof July', which is a red blend

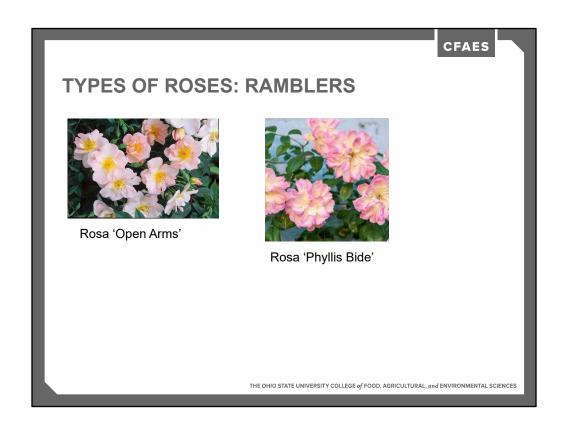


Everblooming climbers are much less vigorous than ramblers and slower growing so they are good for small garden. Everbloomers are heavy spring flowers that *MIGHT* bloom in the fall again if the conditions are right. They are quite winter hardy and more disease resistant than others. Some bloom more freely if they are trained horizontally rather than vertically.

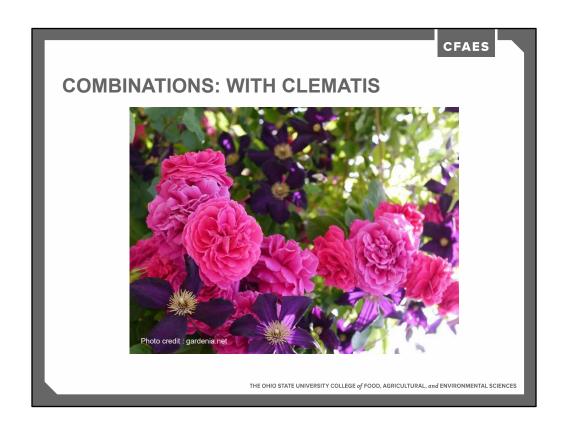


Ramblers are type of old-fashioned climber. They can grow up to 20 feet in a growing season. Typically, they produce small flowers in large, dense clusters sometimes up to 20 blooms per stem. They only bloom in the spring or early summer for several weeks.

Plants are usually hardy more so than climbers but are susceptible to mildew, a foliage disease.

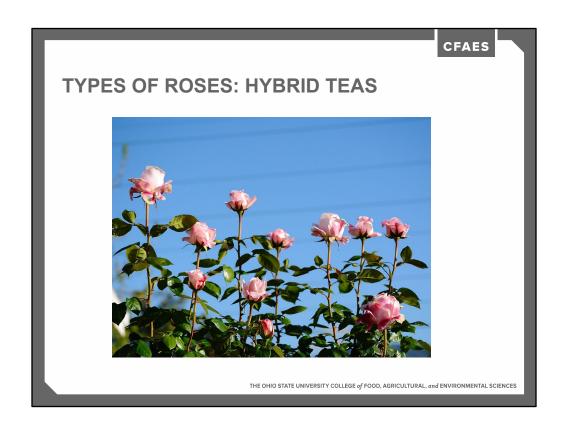


Because of interbreeding efforts, there are some new repeat-flowering rambler varieties. But, just be cautious as most are listed for plant hardiness zones 6-9 – and we are on the edge of that meaning they might not overwinter.

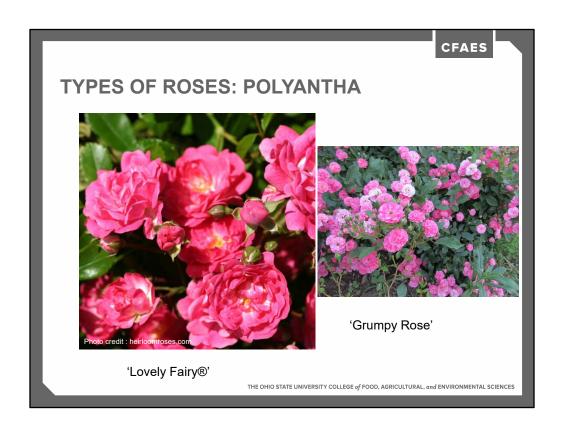


Climbers and Ramblers pair well with clematis. Clematis can share the same arch, trellis, pergola, doorway, etc. They have same natural needs and same growing conditions (rich, moist, well-drained soils) and benefit from the same fertilizer. They are similar in size so one doesn't swallow the other. Clematis foliage can hide the roses bare legs and roses add their lovely fragrance. Also consider selecting roses and clematis with different flowering periods for extending color.

Considerations: stick to the small-flowered clematis over the large flowered which doesn't have a fragrance and suffers from a wilt.



Another type of rose that has been around since 1867 is the hybrid teas. In most cases, the flowers are borne singly. Usually, the buds are long and pointed. The stems tend to be pretty long and are often great for flower arrangements. They don't produce as many flowers as other rose types and do not form a strong bush, but many canes rise from the plant base. They vary in hardiness and frequently need winter protection. Most have some fragrance. Hardiness is usually zones 5-9. large flowers.



The polyantha rose bush's creation dates back to 1875 – France (bred in 1873 – France), a polyantha rose bush named Paquerette, which has beautiful clusters of white blooms. The polyantha rose bushes were born from the crossing of wild roses. They are a small plant which produce mass amounts of cluster petals that rest upon sturdy stems. They can be grown in small containers, next to walkways or in the front of garden beds. These lowgrowing, compact and continually blooming roses offer delicate colors of creams, pinks and golds. Some varieties are very winter hardy.

One series of polyantha rose bushes features the names of the Seven Dwarfs and were introduced in the mid1950s (Grumpy, Bashful, Doc, Sneezy, Sleepy, Dopey, and Happy)



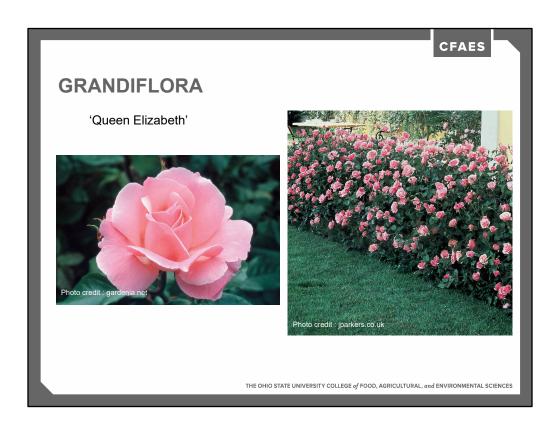
Most popular class of roses world-wide because of their profuse blooming is the floribundas. They are large flowers borne in clusters. Their stems are shorter than hybrid teas, so not very suitable for arrangements. They are also bushier than hybrid teas and look good in groups of three or more. Hardiness is usually zones 2-9 so more widespread than hybrids. They are a cross between hybrids and polyantha roses and have been around since the 1940s.

Iceberg is particularly interesting as it is nearly thornless, some say shade tolerant. Comes in a climbing form as well. Dark green, glossy foliage with clean white blooms. Very light to no fragrance. Long bloomer. Usually 3-4' in height. Good for mass plantings.

Angel face. Deep lavender bloom with wavy petals that are very fragrant.



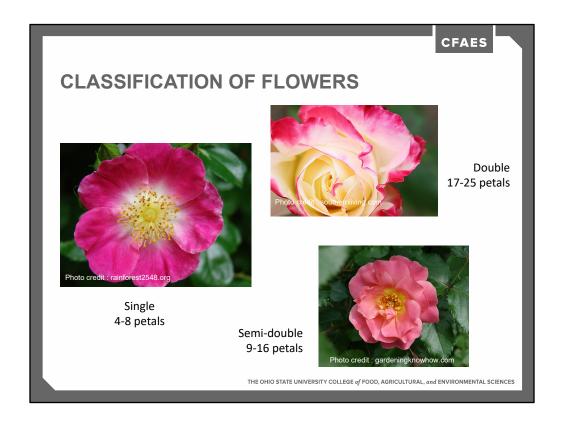
Additional floribundas: Hot Cocoa – russet color; Mardi Gras – blended yellow orange pink; Tenacious – yellow with red stripe



First member of this class of grandifloras. Bred in 1954 a cross of hybrid tea and floribunda. Very tall bush type. They are vigorous, have the clustering characteristics of floribundas and perfect form of the hybrid teas. Their flowers are larger than floribundas, but not quite as large as hybrid teas. Have individual stems that are good for flower arrangements. They are considered a continuously flowerer.

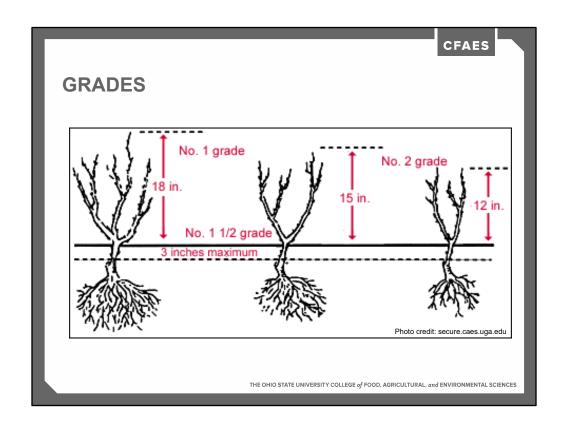


Here are some examples of some really striking grandifloras: 'Lagerfield' and 'FAME!'



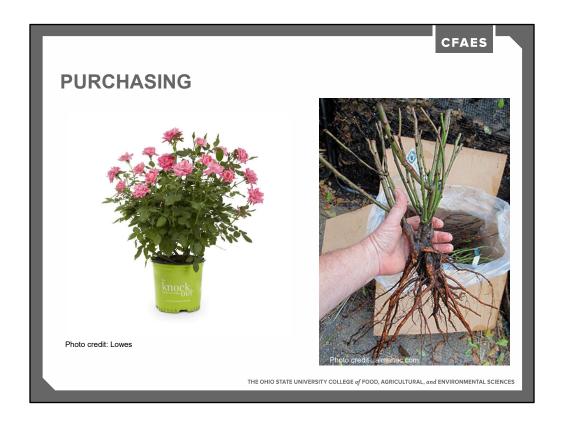
Roses can be classified by the number of petals on their blooms and are broken down like this:

- Single which have between 4 and 8 petals
- Double which have between 17 and 25 petals
- Semi-Double which have around 9-16 petals.



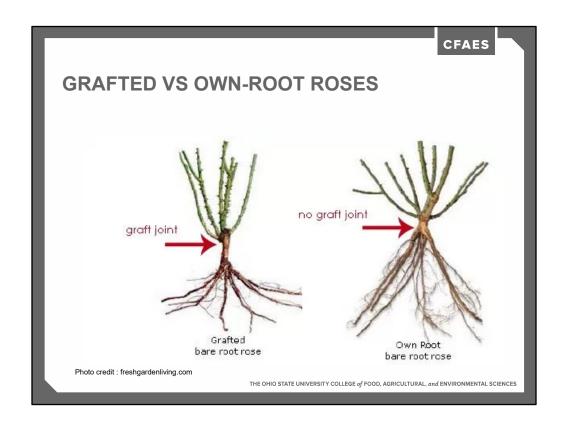
Roses are sold by grades. Grades are assigned based on height and age. Typically, roses are old as 2-year-old field grown plants that are graded according to their vigor and size.

1, 1.5, and 2. Number 1 is the largest. Most nurseries only handle 1 and 1-1/2 grades. Bargain roses are often culls and are below grading standards. Keep in mind, you get what you pay for.

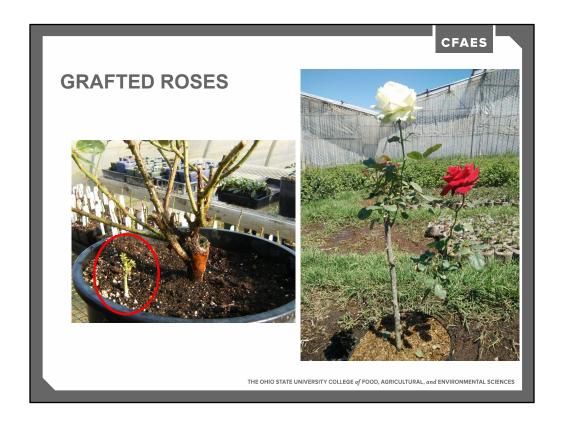


Roses can be purchased in a couple of different ways. First, they come in containers, which can be planted any time of the growing season. Its recommended to buy #1s in 2 gallon pots and #1.5-2 in 1 gallon pots. Often field grown roses that are potted up have too many roots removed to develop vigorous after planting.

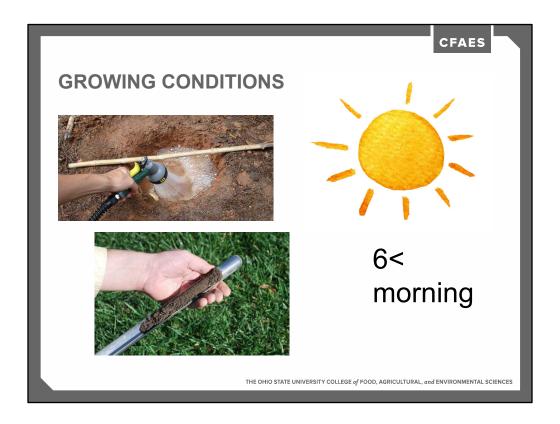
You can also buy bare root roses. Often these are mailed to you, but when selecting in person, make sure they have plump, green smooth bark. Make sure roots are well balanced and appear fresh. It should feel slightly heavy vs dried-out and brittle.



Many roses available to gardeners are grafted. This horticultural process involves taking a bud of a desirable rose cultivar and placing it onto the roots of species roses, such as Rosa canna or Rosa laxa. Species roses tend to have more vigorous root systems than the more desirable cultivated varieties (cultivars), resulting in stronger and more vigorous plants. The location on the stem where the bud is placed is called the bud union (or graft). This will be a swollen area near the base of the plant (Figure 1). Growth (canes, foliage, and blooms) that occurs above the union will be the desired cultivar. Grafted tend to be cheaper as they grow more quickly.



When a rose plant seemingly changes flower colors, such as when a pink hybrid tea rose begins to have red flowers, it means the graft union has failed and the foliage and flowers can be attributed to the rootstock.

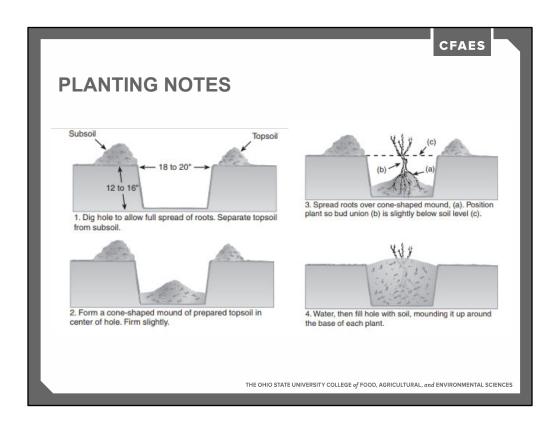


Roses prefer morning sun is where light conditions are not full sun. This helps dry leaves quickly to reduce disease problems whereas afternoon midsummer sun can fade and burn petals.

Well drained soils are essential. If not available consider a raised bed or installing subsurface tile drainage before planting.

If you are not sure about your drainage, you can test it. To test your soil's drainage, dig a about a foot wide by a foot deep with straight sides. Fill with water. Let sit overnight. Prepares the soil by saturating it for a more accurate reading. The next day refill it. Place a stick at the surface level and measure the level of water every hour until it is empty. Ideal soil drainage is around 2" per hour. If less than 1" – improve your drainage or pick a different plant. More than 4" – too fast. To improve soil structure, add organic matter and compost (helps heavy clay drain and also helps hold water for sandy soils. Win-win). Build raised beds is another option.

Soil test – needs pH 6-6.8



When planting, you can add bone meal or super phosphate to the soil as a phosphorus source which helps give them an extra boost for root growth. If you are planting a grafted plant, make sure the bud union will be one to two inches below the surface. This prevents undesirable suckering below the grafted portion.

Planting bare root bushes, soak in water for 8-24 hours prior to planting. And, bud union for bare roots should be 2 inches above soil line.

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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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It may be necessary to transplant your roses at some point. Do so during a period of dormancy (usually between December and March in Ohio). Prior to moving, cut 1/3 of the canopy back. When transplanting, remove as much of the root ball as possible to minimize the disturbance and root injury.



Use the finger test to determine if your soil has enough moisture for the roses. Push your finger in the soil to test for moisture. When the upper 1-2 inches are dry, it's time to water. Deep watering is best. Avoid overhead watering when you can. If you must, do it in the morning or early afternoon so there is plenty of time to dry and avoid unnecessary risk of disease.

Roses must have good drainage and perform best when they have abundant water. The soil around the roots should always be moist but never saturated. Apply water when the top 1 to 2 inches of soil is dry.

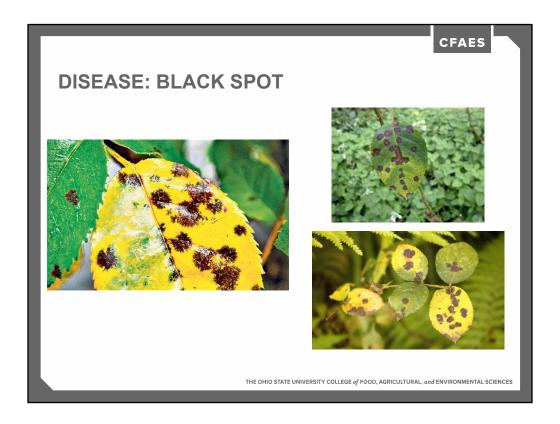
Thorough, deep watering is important. Never give light surface applications. Water should be applied slowly enough to prevent surface runoff and long enough to ensure deep soil penetration. At each watering, soil should be soaked to a depth of at least 1 foot.



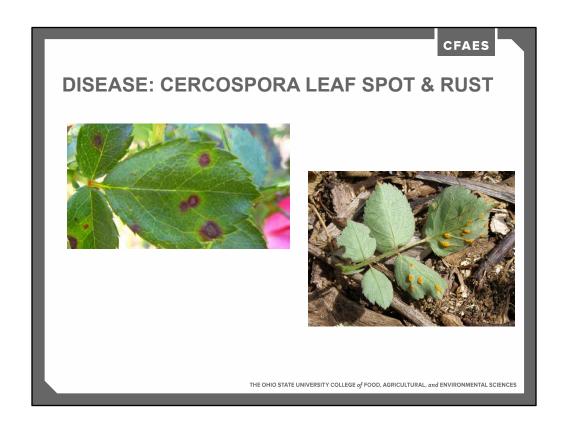
Many fertilizers are available, most with varying analysis. Regular garden fertilizers like 8-8-8, 10-10-10 or 12-12-12 may be used just as well. Avoid high nitrogen turf materials like 25-10-10. Fertilize in the spring after frost danger has past and pruning is completed. Then fertilize every 4-6 weeks until early August. Shrubs that only bloom once should only be fed once in mid-April. Don't fertilize after July; reducing fertility in the fall helps harden the plants for winter.



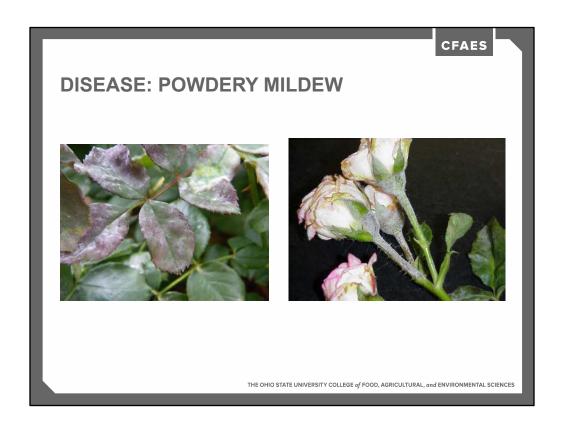
Good pest control begins with you. There are cultural habits that we can practice that go along way in reducing disease and pest problems. First, proper watering is essential as we've already discussed. Planting plants with adequate spacing between is important to promote air circulation as is proper pruning. Pruning to an outside bud is important to promote a more open center which is good for air circulation. Raking up fallen leaves and debris from around the roses can also help prevent spread of disease.



This is probably the worst enemy of every rose gardener. It is a fungus that causes dark circular spots on the leaves that eventually turn the leaf yellow and it drops off. It generally occurs beginning in mid-May until early August, so basically all of the growing season. Wet seasons and poor air circulation help the spread of this disease. Again, a wet leaf surface encourages development and spread – so back to that avoiding overhead watering when possible.



A disease that is often mistaken for black spot is Cercospora. Fortunately, many of the fungicides that are labeled for black spot are also labeled for cercospora Roses can also be susceptible to Rust but fungicides and cultural management can help reduce this.



Leaves, buds and even stems can get the mildew. Spring conditions, cool damp nights and daytimes of 70F+ coupled with poor air circulation. High humidity is ideal conditions for this fungus or roses located near ponds, streams, or other warm, damp situations. Cleanup old leaves, pruned material and stop overhead watering. Can use sulfur powder or wettable powder. The sulfur interrupts the cellular process of the fungi and provides an inhospitable environment for a variety of other fungal spores. Apply in early spring while still dormant. Needs reapplied after rains. Many fungicides available. For those wising to avoid fungicides, you might try baking soda and oil sprays but should be tested first to make sure they don't injure the plant.



Rose mosaic is most common virus on roses. Do not plant infected roses and discard infected plants. Spreads through infected stock only. Not transmitted on pruners or shovels. Weakens plant over many years. No cure.

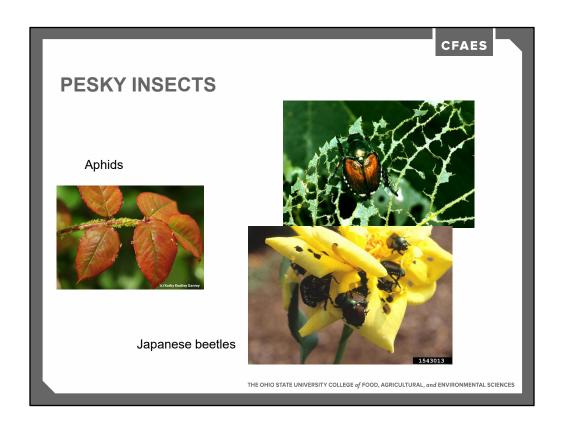
Stem cankers are wounded or improperly pruned canes that lead to infections. Prune out infections below the lowest point of infection. Make sure to disinfect your pruning tools with 10% bleach solution to avoid spreading fungus..

Botrytis blight – small, water soaked lesions form on petals. Stubs left on the cane become infected. It moves down the cane and girdles it. – good air circulation, removing fading flowers and apply a fungicide to protect healthy tissue.



Eriophyid mite spreads the disease. Symptoms: rapid elongation of new shoots, witches' brooms or clustering of small branches. Often die within 1-2 years. This mite is so tiny it can feed inside flower and leaf buds where pesticides can't reach. It transmits the disease by feeding on infected roses and then feeding on healthy plants.

Remove infected canes and destroy them away from garden. Keep watch it doesn't come back. If it's badly infected. Dig up the whole plant, roots and all and destroy them. Also, remove any multiflora rose growing near the garden.

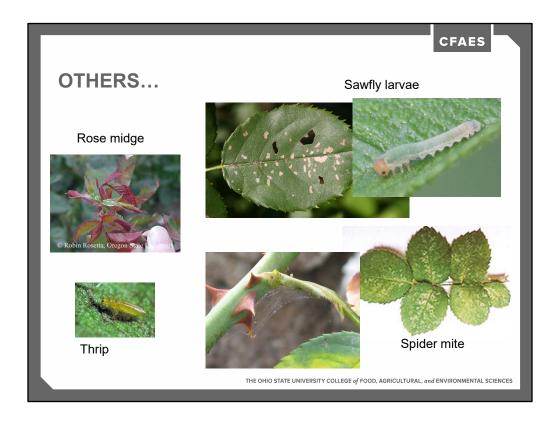


Aphids – particular problem when it is cool and wet. When it turns hot and dry they disappear. They are sap feedings, so they feed on growing tissues of shoots, stems or buds. Natural predators eat aphids, so watch those insecticides. Usually they don't harm the plant, although large numbers can lead to distortion of buds or reduced flower size. Overfertilizing can promote conditions favorable for buildup. You can spray them with forceful sprays of water.

Beetles – Japanese – skeletonize the petals and eat the entire floral petals. You can handpick them off in early July to keep them from attracting other Japanese Beetles. You can protect them with cheesecloth or fine netting during peak flight times. Do not use traps near the roses because it actually attracts more beetles. Some insecticides exist for control, but new individuals will arrive so it's a constant thing.

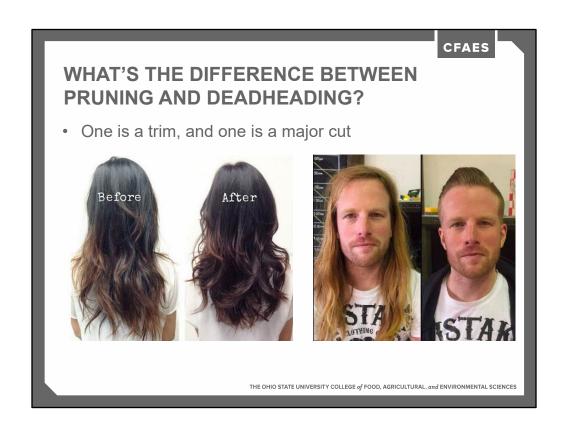


Tunnels into canes soon after winter pruning. If a hole is present, cut back until cane is healthy. Can use wood glue to seal wound if desired.

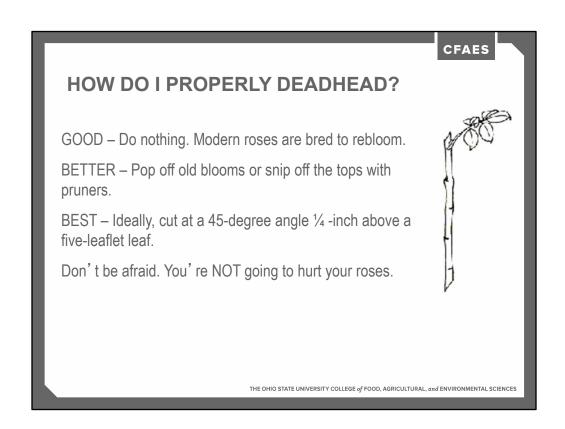


Rose midge – attack the blooms, so if you have a healthy looking bush with lots of growth, but no blooms, look for midges – soil granule insecticide worked and watered in can help. Sawfly larvae damage – insecticides work.

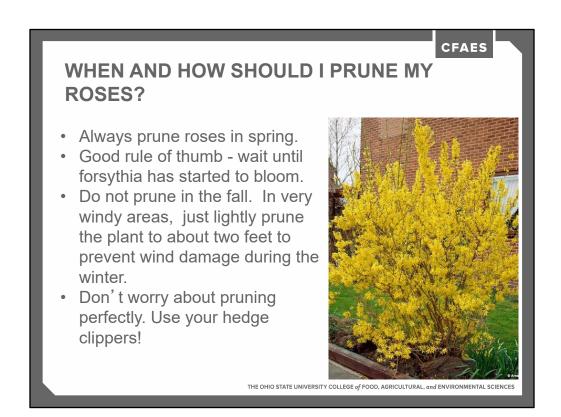
Spider mites – mottling appearance. Feed from the bottom of the leaf. Take some white paper and tap the leaves. If the little black spots are moving, you have spider mites. Very dry conditions promote them. Miniatures along sidewalks are especially prone. Might see webs on stems – tell tale sign. A good strong water hose to knock them off can work wonders, but again, do this in morning or early afternoon so leaves can dry before evening. Using a broad spectrum pesticide might increase their numbers as the beneficials are killed. Thrips – they hide in the blooms so insecticides often don't work. Windbreaks can help as they are carried in on the wind.. Their feeding damage causes little scars or brown streaks on petals. Removing spent blooms can help reduce problems.



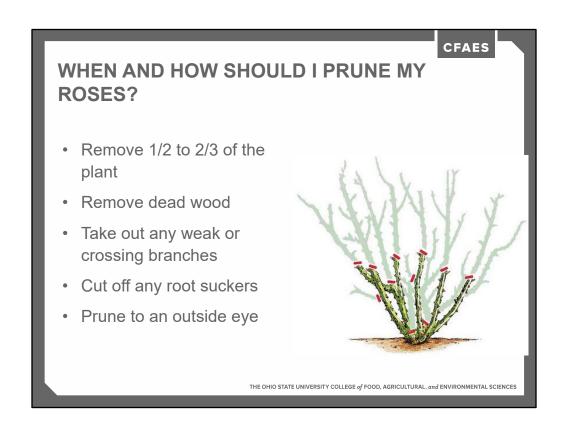
Dead-heading is the removal of faded flowers before they can develop seed. Dead-heading is a form of summer or day-to-day pruning. Flowers should not be cut after October 1 to allow the plant to begin hardening off for the winter. Dead-heading is also a good way to lessen the likelihood of diseases such a botrytis from becoming a problem



You don't HAVE to deadhead. Modern roses are bred to rebloom so technically, you don't have to deadhead. If you choose, you can pop off old blooms or snip the tips off with pruners. And, the best case scenario – you can cut at a 45 degree angle about a quarter of an inch above a five leaflet. The thing to keep in mind is that you will not hurt your roses by doing this properly.

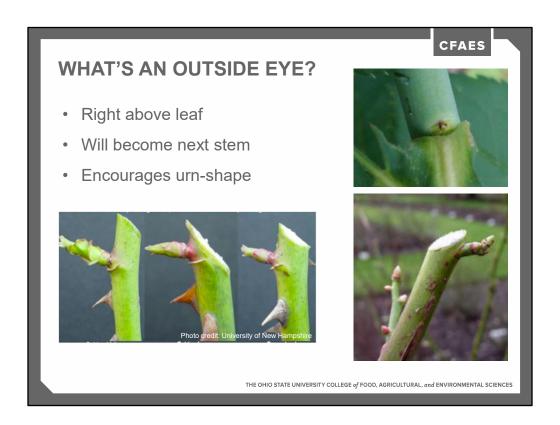


The goal of spring pruning is to produce an open centered plant. This allows air and light to penetrate easily. The best time to do this is after the forsythia has started to bloom. Do not prune roses in the fall. Don't worry about pruning them perfectly – you can even use your hedge clippers.

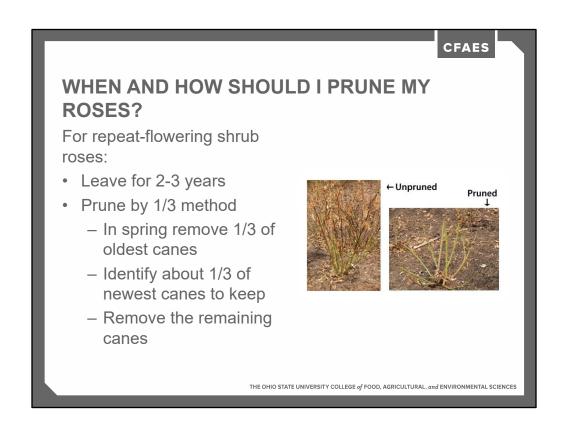


If roses are grafted and there is sucker growth, remove it. The best way is to dig down to the root where the sucker is originating and tear it off where it emerges. Cutting suckers off only encourages regrowth of several suckers where there once was one.

Roses like hybrid teas, grandifloras, floribundas, and miniatures produce the best flowers on new or current season's wood.



When pruning, prune to an outside eye this will encourage a urn type shape to open up the bush. This outside eye will eventually become the next stem.



Repeat-flowering shrub roses bear flowers on mature stems that are not old and woody. Severe pruning of these roses would result in reduced flower production

CFAES

WHEN AND HOW SHOULD I PRUNE MY ROSES?

Old Garden Roses

- Once bloomers AFTER flowering
- Repeat flowerers Before flowering

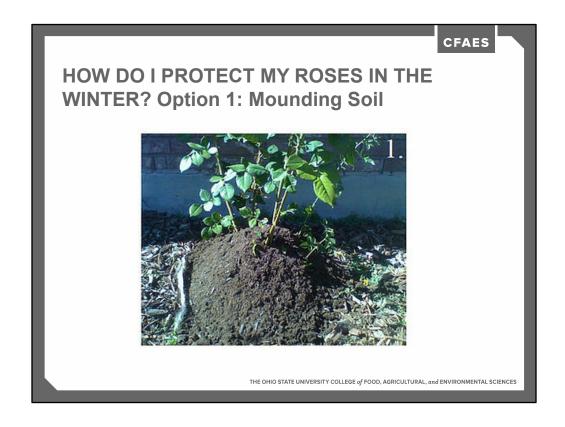
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Old once-blooming roses produce flowers on old wood, all pruning should be delayed until after flowering. Then, you do as little or as much pruning as is required to maintain the plant. Thinning and removing old wood is encouraged. These roses may not need annual pruning if there is no dead or damaged wood present.

Repeat-flowering old garden roses such asbloom on both new and old wood. These can be pruned before they flower and pruned harder without fear of losing blooms.



Climbers and ramblers may need a few seasons in the garden before pruning is necessary. In many cases, pruning is limited to removing winter-damaged wood. Pruning is similar for both classes. The difference is in the timing. Because ramblers are once-blooming, they are pruned right after flowering in early summer. Because climbers are repeat bloomers, they are pruned in early spring. Reducing the side shoots or laterals to 3-6 inches stimulates flower production, resulting in more blooms. Training canes to grow more horizontally encourages the growth of bloom producing side shoots.



Winter survival can be a concern for some but there are a few options to protect your roses.

After the first hard freeze (usually around Thanksgiving), put a foot of mulch over each rose bush.

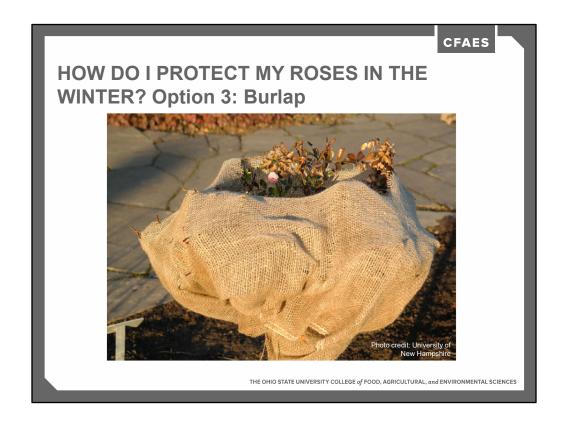
- ✓ If it has been a dry fall, give plants a good watering before mulching.
- ✓ Prune back canes
- ✓ Tie together with twine
- √10-12 inches deep of additional soil don't rake up from the base!

In extremely cold areas or open areas where winter damage is common, the best way to protect a climbing rose is to shield the entire plant with earth.

- After the first hard frost of the fall, detach the plant from its support and tie its canes together.
- Bend the canes to the ground arching them near the plant's base to avoid breaking.
- Pin the canes down with crossed stakes to heel in canes.
- Mound the soil over the entire plant and drive a stake into the ground at each corner of the mound to mark the spot.



Prune to size of collar
Fill collar with coarse mulching material (peat moss, pine bark, shredded leaves, straw,etc.)
Tie burlap on top
Mound soil around base of collar 10-12 inches



No pruning is necessary, other than to remove canes rubbing together and those growing inward toward the center of the bush.

- Tie the canes together with twine.
- Bind with evergreen boughs and burlap.
- Mound soil to a depth of 6"-8" around the base.

Spraying the plants with dormant oil and lime sulfur will give plants a head start for the following spring.