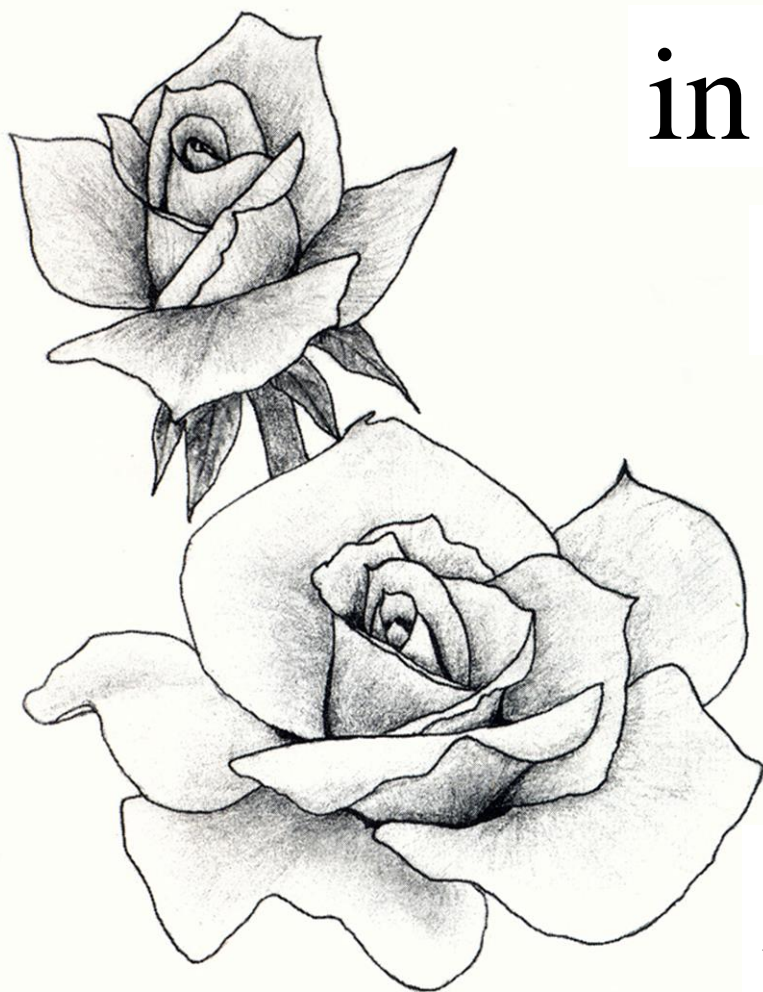


Growing
Roses



in the

Northern

Midwest

By
David C. Zlesak

WELCOME TO ROSE GROWING

The climate issues that gardeners in our part of the country have to deal with can be overcome with the right knowledge and some persistence. Many rose classes offer gardeners unique growth habits, interesting flower forms, and varying requirements of care. They range from very hardy cultivars which can thrive in the landscape to tender hybrid teas. First decide what you expect from and are able to give to your plants, and then choose cultivars accordingly. Following are some general guidelines which will help you in their care.

SELECTING A SITE FOR ROSES

Investing the little bit of time in preparing a good planting site will pay off for many years to come.

Light: Provide at least five hours or preferably more of direct sunlight per day.

Competition: Avoid planting near an established tree or large shrub which will absorb much of the nutrients and water meant for your roses.

Air Circulation: Choose locations without stagnant air pockets to help wet foliage dry faster and discourage disease. Also avoid excessively open and windy areas where plants can be easily dehydrated and physically broken.

Soil: Having a professional soil test done through the county extension service will take the guess work out of knowing the status of one's soil. Information on the suggested amendments and quantities needed will be given with the test results.

- pH 6.0-7.0 (proper pH makes essential nutrients in soil available to plants).
- Good drainage (avoid adding sand to try to improve heavy, soggy soils - add composted organic matter and/or create raised beds).
- Add composted organic matter (leaves, peat, manure, etc.) to improve soil structure, moisture relations, and nutrient holding capacity. For the average sized garden rose, mix organic matter over an area at least 24-30" wide and 18" deep. The goal is a large uniform soil volume.

CLASSES OF ROSES

Roses are grouped into horticultural classes based on shared traits or genetic background. Even though a rose may fall into one of these classes, there can be a lot of variation between it and another cultivar in the same class.

Species: These roses are found growing natively throughout the Northern hemisphere. There are about 130 species, many of which have never yet been used by rose breeders. Some offer very interesting characteristics and are well worth learning about and growing. In the background of most modern roses (hybrid teas, floribundas, etc.), only about 7-9 species are found. Most species roses have one strong bloom period that lasts a few weeks in late spring.

Hybrid Teas: This is a popular class of rose and is the class used for typical florist roses and what the general public typically thinks of when they think of roses. Usually, one relatively large flower is borne per medium-long cutting length stem.

Floribundas: These roses are shorter and more compact than hybrid teas and have flowers borne in clusters. Floribundas provide a strong display of color in the garden and in mass landscape plantings.

Grandifloras: This class is between the hybrid teas and floribundas in that they produce blooms in clusters, yet each bloom usually is borne on a medium to short cutting length stem. Plant size of some can be rather large.

Shrubs: This class can better be called a miscellaneous class. Roses with characteristics that do not fit well into other classes are often put here. Some cultivars are very winter hardy, while others are more tender. Many have dense growth. The Canadian-bred Explorer, Parkland (Morden), and now 49th Parallel series contain many winter-hardy, reliable, and disease resistant cultivars well-suited for the landscape here in the northern Midwest.

Miniatures and Mini Floras: These roses are just dwarfed in size. Miniatures have the smallest bloom size, while the mini-floras are the size between the miniatures and the floribunda or hybrid teas. They often produce far more blooms per season than the larger roses. There is a wide range within what rosarians call “minis”. Most resemble dwarfed hybrid teas, but others resemble miniatures of the other classes: floribundas, shrubs, and even antiques and climbers. A border or bed of minis produce a lot of color and blooms and are well worth a try. They also do very well in pots and containers. They range in winter hardiness as do the shrubs and can be winter protected in place or by burying. Their smaller size and the fact that they are own-root (not grafted) makes them easier to handle and protect in winter.

Climbers and Ramblers: These roses produce large plants with long canes that can be trained on a supportive structure such as a trellis. Some are once blooming while some are everblooming. Most will require winter protection, however some of the long cane Canadian and old garden rose varieties are fully cane hardy to zone 4.

Rugosas: *Rosa rugosa* is a species from Northern Asia that is very tolerant of cold (zone 2), disease, and salt (it is native to sea sides). Many cultivars have been bred combining it with characteristics of other rose classes. These hybrids and the species itself are a major source for carefree roses that can be incorporated in the landscape. Most are also repeat blooming, producing multiple cycles of bloom throughout the growing season. Not all hybrids are as carefree as the species.

Old Garden Roses: This is a loose name given to roses belonging to classes that were in existence before 1867, the year hybrid teas were introduced. Many of the old garden roses are fully hardy in the northern Midwest climates – some to zone 3. Many of these varieties only bloom once over a 3-to-6-week period in May, June and/or July. However, the floral presentation is often spectacular with the sheer number of blooms exceeding the total number that repeat blooming varieties produce over an entire season. The classes of old garden roses that are typically hardy to Zone 4 include: *Albas*, *Gallicas*, *Mosses*, and *Damasks*. Some of the cultivars from the *Portlands* and *Hybrid Perpetuals* are also hardy and have the added benefit of some repeat bloom.

BUYING PLANTS

Dormant Bareroot Plants VS

Potted Growing Plants

Advantages

- Often greater cultivar selection
- Available through mail order in addition to quality wider range garden centers
- Usually more affordable

- Can see cultivar in bloom before purchase
- Can get a head start on the growing season with a greenhouse forced plant

Dormant Bareroot Plants VS

Potted Growing Plants

Look For:

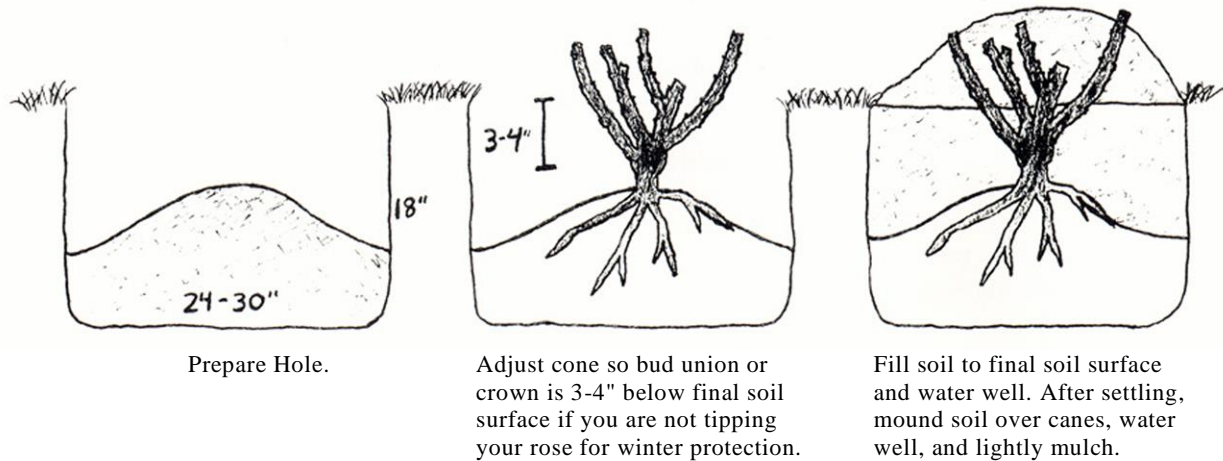
- #1 grade plants
- Strong plants without broken or damaged canes and having as many of the original roots as possible
- Avoid packaged plants displayed for extended periods in warm dry stores or direct sunlight

- Symmetrical and healthy plants with no signs of disease or water stress

PLANTING ROSES

Bareroot Rose Plants

- Plant as soon as soil is workable and plants are available. Root growth can begin well before temperatures warm enough to stimulate shoot growth.
- Prune canes 6-8" in length from bud union or crown and 1/4" above an outward facing up. Remove cracked, weak, or broken sections of canes and roots.
- Soak plants in water, or water with a plant starter, for a few hours to up to a day before planting. Do not allow plants to dry out.
- Loosen soil approximately 18" in depth and 24-30" in width for most garden roses (smaller roses at maturity can have a proportionately smaller hole).
- Remove enough soil from the hole to create a cone allowing roots to be symmetrically spread. Planting depth depends on both the variety and your method of winter protection. If you are not tipping or burying your rose in winter, then plant the bud union below the soil level. The cone needs to be deep enough to allow the bud union or crown to be 3-4" below final soil surface. The added planting depth will give extra protection to help survive our harsh winters. If you are tipping or burying your roses, then set the bud union at or above the final soil level.
- Spread plant's roots evenly over mound and fill soil in to about ground level. Water well, allow soil to settle, and then add more soil or mulch mounding it over the canes. Water again and lightly mulch. The mound helps to keep canes from drying out as the root system establishes itself. Alternatively, you can regularly mist the bare canes to prevent drying.
- When new growth emerges, carefully wash mounded material to final soil level, create a shallow basin around the base to help collect water, and mulch.



Planting Potted Roses

- Loosen soil approximately 18" in depth and 24-30" in width for most garden roses (smaller roses at maturity can have a proportionately smaller hole).
- Remove plant from pot and gently separate roots if heavily pot bound.
- Plant with crown or bud union as realistically possible to the 3-4" below final soil level. Avoid burying leaves to accomplish this since they will rot. You may strip off some lower leaves to be able to plant a little deeper.
- Water well, form a shallow basin around plant to help collect water, and mulch.

GROWING ROSES IN CONTAINERS

Raising roses in containers allows one to have plants on a deck or patio where they may be more easily admired and also be moved around during the growing season. Some tips when growing average sized roses outdoors in containers are to plant in containers at least 5-15 gallons in size and to raise containers off the ground with bricks or wheels to ensure good drainage. Miniatures can be grown well in smaller pots. Plant in a well-draining soil mixture and check plants for water regularly. During winter extra protection must be given. Remove the whole plant and bury as described for tender roses. Plants can then be replanted in the container or garden in spring. Some rosarians bury the plant still in the pot. Another option is to store the plant and container in all in a root cellar or similar place where the plant will stay right above or a little below freezing. Check stored containers periodically for water so soil does not totally dry out.

FERTILIZATION

There are 16 identified elements that plants need to grow. They are categorized into three groups depending on the relative quantity that is needed.

Macro nutrients-Nitrogen (N), Phosphorous(P), Potassium(K), Carbon(C), Hydrogen(H), and Oxygen(O)

Secondary nutrients-Calcium(Ca), Sulfur(S), and Magnesium(Mg)

Micro nutrients-Iron(Fe), Manganese(Mn), Molybdenum(Mo), Chlorine(Cl), Boron(B), Copper(Cu), and Zinc(Zn)

These essential elements are available to plants as either cations (ions having a positive electrical charge) or anions (ions having a negative electrical charge). The exceptions are carbon, hydrogen, and oxygen which a plant receives primarily as water and carbon dioxide. Most soils have a naturally negative charge allowing cations to be held more easily within the soil. Since plants absorb nutrients (except C, H, and O) as primarily electrically charged ions dissolved in water, fertility goes hand in hand with good watering practices.

There are a few ways to apply inorganic fertilizers with each having a different ease of application and effectiveness. Begin fertilizing in early to mid-May after new growth is evident.

Spikes: This method is the least labor intensive and also the least effective. Fertilizer is heavily concentrated around the spike creating localized “hot” spots and nonuniform nutrient availability throughout the root zone. Usually, two applications are made per season.

Granular: This method takes only a couple to few applications per season (depending on formulation) and is more uniform than spikes when applied evenly over the soil surface. The idea is that the nutrients are slowly released as the solid granule dissolves. The rate of dissolving and nutrient release is determined primarily by temperature and moisture.

Liquid (or water soluble): Since plants take up nutrients as ions dissolved in water, this method is the most immediate and effective way to make nutrients available to plants. This method of fertilization is recommended at 2-week intervals and can also be used as a foliar feed directly sprayed over the plant if temperatures are below 90 degrees F. Application time can be saved through using siphons or siphons in conjunction with drip irrigation. If one is interested in growing the best roses or garden possible, this is the method to choose. Many of the liquid soluble fertilizers have not only NPK, but also secondary and micronutrients as well. Miracle Grow and Rapid Grow are examples.

Organic sources of nitrogen and other nutrients include such things as blood meal and composted manure. The forms that the nitrogen ions and other ions are absorbed by the plant does not necessarily differ between inorganic and organic sources. A challenge with organic fertilizers is that a lot is needed since they are bulky and have a relatively low nitrogen level. Using a combination of both sources each year is a common choice. Side dressing organic matter is beneficial to the soil beyond a fertilizer source, and the ease and certainty of nutrient levels in inorganic fertilizers can still be utilized.

IRRIGATION

Water is vital to plants. It is used for such things as photosynthesis and other biochemical reactions, nutrient uptake, turgor pressure, and transpiration (water evaporating off the plant to cool it down). During the growing season, roses need about 1" of water per week and even more in hot weather. The 1" or so of water includes what comes as rain and from watering. When any plant is experiencing water stress, growth will be dramatically reduced.

When watering, it is important to water deeply and less frequently compared to shallowly and more often. Watering shallowly encourages roots to concentrate near the surface and be more susceptible to drought.

Water Application

Overhead Irrigation: Sprinkling water over a plant's foliage can encourage disease. If this method is chosen, water early in the day so foliage can dry relatively quickly. If watering by hand with a hose, try to aim water directly to the soil without hitting leaves more than necessary. The use of a water wand can reduce splashing.

Drip Irrigation: This method wastes less water than overhead irrigation since water is directed to the root zone and less is lost through evaporation. Surprisingly, a significant amount of sprinkler applied water can be lost on a hot dry day as it is shot through the air. Drip irrigation avoids wetting foliage and in the long run can save time and money on water.

MULCHING

Having a couple inches of mulch over the soil surface is essential to help retain water. Mulch also has other great benefits such as keeping the soil temperature even, reducing weeds, and helping to prevent disease. Uniform mulches can be quite visually pleasing. The lighter mulches such as cocoa bean hulls or shredded leaves have the added bonus of being easily worked into the soil at the end of the growing season to improve the organic content and texture.

Common mulches include shredded bark, wood chips, pine needles, shredded leaves and cocoa bean hulls. Wood chips and shredded bark may require additional application of nitrogen fertilizer due to the increased microbial action needed for their breakdown. One type of mulch to be careful of is rocks. They can absorb too much heat from the sun and become a nuisance as they appear in the lawn and become mingled with rotting leaves and debris. Also avoid hay (it may contain weed seeds), lawn clippings having had an herbicide application, and wood mulch from trees like black walnut that contain growth inhibitors.

PRUNING

Spring

For hybrid teas, grandifloras, minis, and some shrub roses:

- Remove dead, spindly, and weak wood.
- Open up center of plant by removing crossing and crowded canes.
- Prune so the topmost bud is facing outward to direct growth symmetrically.
- The more severely a plant is pruned the fewer blooms there will be, but the blooms will be larger and on stronger stems. If a lot of color is wanted, prune less severely, but if high quality cut flowers are desired, prune more severely.

For climbers and many of the antique and shrub roses:

- The first three principles apply from above.
- Do not prune healthy canes back severely since most of these rose cultivars bloom predominantly from side buds from the previous season's canes. The goal for these roses is to be able to over winter and keep as much healthy wood as possible.

Rejuvenation Pruning: Each spring after a plant is established, prune out about 1/4 to 1/3 of the oldest canes at their base to encourage new strong canes to replace them.

The plant will benefit from increased vigor and health.

Summer

Do a minimal amount of aggressive summer pruning. Remove spent blooms down to a strong outward facing bud if rose hips aren't desired, and also prune to remove broken canes and to keep the plant out of unwanted areas and looking symmetrical.

Fall

For tender roses prune rose canes back to the point where you plan to protect as these canes will not survive the winter. If you are burying the rose, prune back to a manageable size. For the hardier climbers, antique and shrub roses just shorten the cane length and/or secure so the canes do not whip around in the winter wind. Prune in the spring as described above.

DISEASES AND INSECTS

Fungal Diseases

The best preventative is to select cultivars having a high resistance to these diseases. Ways to learn of these rose cultivars are to ask what fellow rose growers in your area suggest, or to visit area parks and arboretums late in the season looking for cultivars showing little or no signs of disease. Choosing a site with good air circulation, mulching, and keeping plants healthy will also benefit against disease. If you select resistant cultivars and provide an environment that deters disease, you may not experience a disease problem at all.

Blackspot: This is the most prevalent disease for roses in the Midwest. Dark circular lesions develop usually on the lowest leaves first and then spread throughout the rest of the plant. The dark spots grow in size until the whole leaflet turns yellow and falls.

Prevent/Minimize by:

- Keeping foliage dry when possible.
- Reducing rain splash from soil to lowest leaves by mulching.
- Providing good air circulation.
- Removing diseased tissue to reduce spore inoculum.

Powdery Mildew: This disease affects usually only the newest growth. Tips of new growth become covered with a white haze of fungal mycelium and become curled and distorted. Sometimes a purple hue develops on infected tissue. There are many truly mildew resistant cultivars available and our climate tends to be less conducive to the disease than other areas of the United States.

Prevent/Minimize by:

- Providing good air circulation and mulch.
- Removing and destroying badly infected tissue.

Another option to aid in the prevention and control of these and other fungal diseases is to use a chemical fungicide and to rotate chemicals periodically between spraying. Always read labels carefully and take indicated precautions.

Insects

It is often sufficient to control destructive insects when encountering them instead of spraying to prevent them. The most common destructive insects in our area are usually aphids and various caterpillars. They can be controlled by physical removal, spraying with a strong jet of water and/or spraying with insecticides. By removing destructive insects by hand, beneficial insects won't be harmed. Using a water wand on the undersides of leaves seems to wash many caterpillars onto the ground where they may die and even be eaten by birds. Some rose growers find that the use of systemic granular insecticides is an easy method for insect control. They typically are effective for a little over a month and many rose growers will apply them once or twice a season during times of greater insect pest activity. In hot dry weather it can be beneficial to wet the undersides of the foliage while watering to help prevent or remove spider mites (technically arachnids and not insects). Insects are usually not a continual problem. The key to insect control is to periodically inspect roses and respond if insect damage is becoming more than you can tolerate.

GARDEN ROSES AS CUT FLOWERS

When to cut: Cut stems when they are turgid (e.g., typically morning or late in the day).

What stage to cut: Cut no sooner than when the bud is showing color and outermost petals are becoming loose.

Extending vase life:

- Recut stems underwater at a 45-degree angle.
- Keep in a cool place.
- Do not allow leaves to be underwater since they will decompose.
- Use a floral preservative. A floral preservative:
 - reduces pH of the water to more closely match the pH inside the rose.
 - provides a carbohydrate like sucrose or dextrose as an energy source.
 - has an anti-microbial ingredient to prevent stems from becoming clogged with microorganisms.

A simple home floral preservative is to add to one quart of water: 2 tablespoons of lemon juice (reduces pH), 1 tablespoon sugar (carbohydrate source), and 1/2 teaspoon of bleach (suppresses microorganisms).

Try exhibiting roses at fairs and area rose shows. It can develop into an enjoyable hobby.

WINTER PROTECTION

Unfortunately, many people in our climate are fearful of growing roses due to past plant loss over winter. Thankfully, there are many winter hardy roses being made available to us today for our climate. In the past the upper Midwest was ignored for the most part by those that market roses. Large rose growers in Arizona, California, Oregon, and Texas grew mostly modern winter-tender hybrid teas, grandifloras, and floribundas and sold the same cultivars from Florida to Minnesota. Because of the recent demand for roses to use in landscaping and for generally more winter hardy roses for the Northern climate, these growers are raising some of the hardier cultivars.

Many of these hardier roses have been around for over a century. Recent hardy introductions are also available from breeding work done mostly in Canada. There is a trend for own-root roses. This means that the rose was propagated from a rooted cutting rather than grafting onto another rose which provides the root system (rootstock). Own-root roses are typically more amenable to cold climates. If the top of the plant dies back severely, new shoots coming from the root system will still be the same cultivar. If it was a grafted plant, the graft may be lost and the root system, which is another rose, may sprout and you no longer have your desired rose variety. When growing grafted roses, try to buy roses on *R. multiflora* or *R. canina* rootstock since they are generally more winter hardy and longer lived in our climate than roses grafted on the common rootstock 'Dr. Huey', an old red-flowered climbing rose.

How a plant tolerates cold

When water freezes on our window panes, we often see interesting patterns as the ice crystals branch and grow in size. If allowed to form in plant cells, these ice crystals mean death. The cell walls and organelles within the cells rupture beyond repair. This is the cause of the dieback we see in the spring, and this is especially true on stem tips that were actively growing and succulent entering winter. Hardy plants combat this phenomenon by increasing their sugar and soluble salt concentrations, moving water from within cells to between cells, and by taking advantage of a process called supercooling.

When sugar and soluble salts are dissolved in water, it will not freeze at 32 degrees Fahrenheit, but at a lower temperature (this is why we put salt on our sidewalks). These solutes at most can prevent cellular water from freezing at about the mid-20s F. Beyond this point, moving water from within cells to freeze more safely between cells and supercooling are what plants use to survive. Water in very thin films resists freezing, and the removal of water from within cells to freeze safely between cells protects cells from damage. Supercooling is what allows roses to survive the coldest temperatures in our Northern winters. Supercooling is when the temperature of a liquid is cold enough to freeze, but does not freeze because of a lack of nucleating particles for ice crystals to start. Roses which are better at removing nucleating substances from within cells can survive colder temperatures. At most supercooling is effective down to about -40C (is also -40F), the temperature at which water can form ice crystals even without nucleating particles.

In addition to providing insulation for our more tender roses, our goal as rose growers is to help provide conditions that encourage plants to go into natural dormancy in the fall and allow them to take advantage of the above processes in order to survive cold temperatures.

Practices to stimulate dormancy and enhance winter survival

Discourage succulent late-season growth by:

- Ending especially nitrogen fertilization in late-July.
- Not pruning heavily in late summer or fall.
- Discontinuing to deadhead spent blooms in September.

Encourage sugars to accumulate and healthy soluble salt levels by:

- Maintaining good watering practices throughout the fall.
- Preventing severe plant damage due to diseases and insects.

Insulating the more tender roses

The goal of protection is not to keep the frost out, but to keep it in and just below freezing and to prevent extreme temperature variations. One good insulator is soil. One can begin to mound up soil around the crowns of your tender bush roses in mid to late September. Gradually increase the mound to a foot or so for most average sized garden roses. Finally, after the soil is frozen, mulch well with materials such as leaves, boughs, hay, or straw to keep frost in. Since soil can be difficult to handle, mounding up strictly mulch is another alternative. In spring carefully wash soil and/or pull the mulch back and prune after new buds start to swell and you know what has survived. The only fall pruning gardeners should do is to remove some height on tall canes that are planned to be trimmed in spring anyway and may damage the crown by whipping in the wind. This is done after all growth has ceased to prevent canes from whipping in the wind through winter and cracking near the crown. Avoid rose cones in our climate because in early spring they accumulate too much heat and humidity on warm days and will facilitate molding.

The Minnesota Tip

Many rose gardeners use the “Minnesota Tip” method to protect their tender roses over winter. This method works well for larger bush roses and effectively overwinters more of the canes. Prune the canes to a workable length (this is entirely a personal choice and is often dictated by how much room you have in the garden to dig a trench). Apply a mixed lime-sulfur and horticultural oil dormant spray if desired. Tie all the canes tightly together with polyester or nylon twine, leaving a long piece at the top of the plant. Loosen the roots around especially the opposite side of the plant from where the trench will be dug and dig a trench making it wide enough and long enough to accommodate the canes. Continue to carefully loosen the roots until the whole plant can be tipped over into the trench. Cover with soil leaving the length of twine exposed so you can find it again in the spring. After the ground has frozen cover with additional leaves to provide insulation from temperature fluctuations, keeping the soil frozen. In the spring, reverse the process just after the ground has thawed. The canes will need protection from drying spring winds. This can be done by watering the whole bush frequently, shading, and/or applying an anti-transpirant spray.

Construction blankets

Construction blankets are convenient to overwinter tender roses and roses growing in containers. They are typically 6'x20' or 6'x25' and traditionally used to help retain heat to set freshly poured concrete in the fall. The blankets are less than 2" thick and are made of expanded foam inside of a woven tarp material (basically built like a quilt). They have a high insulation or R-value and are relatively light-weight and easy to move. They can be stretched over plants in late fall before the temperatures drop into the mid to low 20's F. They can be used over potted roses or roses growing directly in the ground. They save a lot of hassle bringing and taking out leaves or other organic material for insulation.

Potted roses can just be laid horizontally on the ground (digging the pots in somewhat isn't a bad idea for extra insulation, but typically isn't necessary). Rodent bait can be placed among the pots and then a less valuable tarp stretched over the roses (to take the brunt of the thorns). Next, the blankets are stretched. If it is a large area being covered and multiple blankets are needed, overlap them at least 6" and allow them to come completely over the pots and touch the ground. Finally, stretch a light covered tarp over everything and weigh down the edges (concrete blocks work nicely). The tarp prevents the wind from blowing the blankets apart and preserve the blankets better from sun damage (they can last for many years). The lighter colored tarp helps to reflect some of the sun and prevent temperatures from fluctuating as much.

Structures can be made over tender roses growing in the ground to stretch blankets and a tarp over as well. Support over the plants to put the blankets and tarps over (concrete blocks, wood, etc.) prevents the weight of snow from crushing and breaking canes. The crowns of the plants can be mounded with a bit of soil as an extra precaution and rodent bait placed around the roses to prevent the bark from being gnawed. Tall roses can be cut back to better fit under supportive structures. Come spring, it is easy to take the blankets and tarps off and reapply them in case of a cold snap.

Protecting Tree Roses

Most tree roses need protection in our climate. The decorative cultivar we enjoy is grafted to the top of the tree with the trunk being a different rose. It is therefore important to make sure not only the top, but also the whole trunk over winters well. The best way to protect a tree rose is to dig the whole plant up as late as possible, but before the soil freezes. Next, strip off remaining leaves of the plant, prune back the top some to make it easier to handle, bury it sideways with soil in a trench, and mulch. The Minnesota tip method is also suitable if one has enough space to dig a long enough trench. After replanting in spring give protection from drying winds and late frosts.

A wonderful relatively hardy tree rose was developed by Bailey's Nursery. This cultivar known as Polar Joy™. It typically requires little special winter treatment beyond being sited in a location which receives some protection from winter winds.

Climbers, Old Garden and Shrub Roses

Since climbing roses and some antique and shrub roses bloom predominantly off of the previous year's canes, it is important to protect as much wood as possible of the more tender of these cultivars. One method of protection for these roses and the most tender bush roses is to carefully strip foliage, tie canes, gently bend the plant down to the ground, mound with soil, and mulch. Roots on one side of plant maybe loosened to aid in bending the plant over (Minnesota tip method). Another method for the slightly hardier cultivars is to mound as described above for bush roses and then create an upright enclosure with wire or some other structure to accumulate dry mulch around canes. When using a larger volume of mulch, use straw, wood chips, or chopped corn cobs that will not get as waterlogged as most leaves will. In the use of mulch to directly insulate canes, it can be helpful to use rodent bait so mice won't find a warm home and gnaw rose bark off for food. Read the instructions carefully and protect pets and non-targeted animals from harm. On the first warm days of spring, begin to slowly remove mounded mulch so heat doesn't build up and mold develop.

Cultivar selection is often your best key to success with winter protection – choose those cultivars that are truly cane hardy for your climate zone and do not need any extra winter protection. Most of the Canadian rose varieties do very well here in the upper Midwest, some long caned varieties double nicely as hardy climbers. The best information on specific names and sources can be obtained from other local rose growers in your area.

Happy Rose Growing!

SUGGESTED ADDITIONAL RESOURCES

Twin Cities Rose Club

Donald Bechtle, Membership Chair 2023
1232 Emerson Ct.
Burnsville, MN 55337
www.twincitiesrose.org

The American Rose Society

P.O. Box 30,000
Shreveport, LA 71130-0030
www.ars.org (has a list of useful links
under the Resources tab)

Growing Roses in Cold Climates, Jerry Olson and John Whitman, Contemporary Books, 1998, ISBN 0-8092-2941-2 (also a revised edition, Richard Hass, Jerry Olson and John Whitman, University of Minnesota Press, 2012, ISBN 978-0-8166-7593-7)

Hardy Roses, Robert Osborne, Garden Way Publishing, 1991, ISBN 0-88266-739-4

Roses for the North: Performance of Shrub and Old Garden Roses, University of Minnesota Extension publication, 1997, MR-6594-GO

Tender Roses in Tough Climates, Douglas Green, Kindle, 2012, ASIN B00719FORC

Books for enjoyment:

Mark Henning recommends: “anything by Peter Beales” (**Passion for Roses, Classic Roses & Twentieth-Century Roses** are available at the Hennepin County Library)

Chris Poppe recommends: **Otherwise Normal People** by Aurelia C. Scott, 2007 (also available at the Hennepin County Library)

Deb Keiser recommends: **Sissinghurst Portrait of a Garden** by Jane Brown, 1990

Diane Sommers recommends: **Papa Floribunda: A Biography of Eugene S. Boerner** by Robert W Wells, 1989

David Zlesak recommends: **The History of the Rose** by Roy E. Shepherd, 1954, reprinted 1978

About the author:

David Zlesak started growing roses in 1980 and has been breeding them for increased winter hardiness and disease resistance since 1984. Along with roses, David also enjoys breeding other ornamentals for greater adaptation to our Northern climate. He earned his Bachelor of Science degree in Horticulture from the University of Wisconsin and his Master and Ph.D. degrees in Plant Breeding and Genetics and Applied Plant Science, respectively, from the University of Minnesota. David is currently a Professor of Horticulture at the University of Wisconsin-River Falls working with undergraduate students and conducting applied research on roses and other ornamentals.

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