

PLANTING CONTAINER-GROWN OWN-ROOT ROSES

Thank you for buying your roses at Harlequin's Gardens nursery! To get off to a good start for growing beautiful, healthy roses, please follow these planting instructions. **Please read them through before you begin.**

WHEN: Many of our roses have been over-wintered outdoors; these may be planted as soon as your soil can be properly dug and worked. Otherwise, in Colorado's Front Range region, plant roses after the average "last frost" date (in Boulder, May 15). Roses that have just arrived from greenhouse growers may need to be "hardened off" for 4 to 7 days prior to planting. Keep them outdoors in a place where they'll be somewhat protected from sun, wind and major temperature changes (you can bring them into a garage or shed temporarily to wait out a late frost or storm). You can plant roses all through the summer, as long as you can keep them watered. And we've had great success with fall planting, well into October, with monthly winter watering.

WHERE: Most roses need at least 5 hours of sun per day though the growing season. We do sell a good selection of "shade-tolerant" roses, and they are appropriate for locations that receive only morning sun, or filtered sun most or all of the day, but not full shade. Some roses produce better quality blooms with morning sun only, for 5 or 6 hours. Blooms on some of the dark flowered roses (red or purple) last longer and display better coloring with protection from very hot sun, so give these mid and late afternoon shade. And some pale pink or yellow roses quickly fade to white in our intense sun. Good air circulation is important for roses, so avoid crowding between other shrubs or planting at the inside corner of a wall or fence. If you are planting your rose in the same spot where another rose has been removed, we recommend replacing the soil with new backfill. Also, be aware that some roses can compete with vigorous tree roots, and others can't.

SPACING: Give each rose room to grow to its full mature width without crowding. For example, if one of your selections grows to 5' wide and the adjacent one gets to 3', add the two figures together (8') and divide by 2 and you'll get 4', the correct minimum spacing for those two roses. Your new rose plants may look small when you first plant them, but they grow *FAST*. If you need room to get around your roses for ease of maintenance, be sure to leave extra space between or around them. For climbing and rambling roses, allow for at least a 6' spread. Generally, roses will be healthier and less susceptible to disease if they have good air circulation around them.

PLANTING: Before planting, water your rose thoroughly while it's still in the container and leave it in the pot until your planting hole and backfill mix are prepared. It is important to dig a **BIG HOLE**, 18 – 24" across and 14 – 18" deep, **regardless of the size of the pot**. Reserve the soil from the top 2/3 of the hole on a tarp or in a wheelbarrow (usually, the bottom 1/3 is very poor subsoil, and should be discarded), and mix in good, mature compost at a rate of 1 part compost to 2 parts soil. At the same time, mix in one cup of **Mile Hi Rose Feed** and one cup ground or pelleted alfalfa. Some rosarians like to add a variety of other soil amendments, such as kelp meal, chelated iron, bone meal, "Ringer Lawn Restore", and well-rotted manure. We advise that manure should only go at the very bottom of the hole (to avoid possibly burning the new roots), and that steer and horse manure can be quite salty or contain vermicides, so choose carefully. Composted dairy cow, goat, llama, and sheep manure are preferable. **DO NOT** add sphagnum peat moss unless you are prepared to ensure that the soil will never, ever be allowed to dry out. **After the initial soil preparation, your rose will not need any further fertilizer in its first growing season.**

Before back-filling, bring over the hose and **fill the hole with water**. Wait for it to **drain completely** before you begin back-filling.

Begin filling the hole with your amended soil. Temporarily set the potted rose into the hole to check for proper planting depth. Add or remove soil as necessary. Carefully remove the plant from the pot, keeping the root-ball intact. If roots are tightly circling the root-ball, gently pry them away so they'll grow outward into the new soil. Plant your own-root rose in the middle of the hole, **4" deeper than it was in the pot** (4" of new soil should cover the bottoms of the stems or canes). This will help protect your rose from both cold and drought, and encourage new roots to grow. See figure 1. If you're starting with a very short plant, just cover 2" or 3".

As you back-fill, tamp the soil with your hands (not your feet!) to prevent excessive settling. When the planting hole is filled, mulch with a 4" layer of wood chips, shredded leaves, etc. (see **MULCHING**). Water deeply (see **WATERING**) every day for 3 days, then twice a week for 2 weeks, and then about once a week thereafter. The first winter, be sure to water once each month with at least 2-3 gallons of water per rose.

MULCHING: Roses perform much better when mulched; mulching can even make the difference between life and death for a rose. Choose an organic mulch such as well-rotted manure (sheep, dairy cow, goat, llama or horse), shredded leaves, wood "chipper chips", or excelsior (shredded aspen) or bark (bark mulch is controversial, as it may contain some natural toxins that may inhibit beneficial agents in the soil). Don't use sawdust unless it is well composted. If you use wood chips, leaves or bark, it is best to first spread a layer of nitrogen fertilizer to provide the nitrogen necessary for decomposition. One warning about fine-textured mulches like compost : in our hot Colorado sun, even in winter, a fine mulch can dry out and actually **repel water**, causing a drought effect.

Mulching provides several advantages:

- 1) a mulch at least 2" thick holds moisture and decreases evaporation, and roses perform better with sufficient moisture,
- 2) a mulch can prevent alternating freezing and thawing, which can destroy the fine root hairs near the soil surface, and mulch can insulate the ground to keep it a little warmer,
- 3) mulching helps to prevent foliar fungus diseases because it prevents spores splashing from the ground onto the leaves,
- 4) mulch suppresses weeds, thus reducing competition for water and nutrients and promoting better air circulation,
- 5) a mulch no more than 4" thick can help aerate the soil because the layer in contact with the soil is broken down and earthworms, cultivation and feeding incorporate the mulch into the soil, and
- 6) Winter mulch can be 4" to 8" deep: **winter mulching is most important for the first 2 winters after a rose is planted**. We like using a 6" to 8" layer of compost and sand (1:1) covered with a coarse wood-chip or excelsior mulch.

WATERING: Watering roses involves planning, observation and common sense. There's an old rule of thumb that "a mature, full-sized rosebush needs about 1" of water a week". But there are many factors – rose variety, soil type, drainage, mulch, placement and weather – that determine how much and how often to water **your** roses in **your** garden.

In Colorado's semi-arid climate, we rarely get enough precipitation to grow most rose varieties without supplemental watering, and our low humidity and strong, drying winds increase evaporation from the soil and transpiration from the leaves. So expect your roses to require more frequent watering when the weather is hot and dry, in locations where they're exposed to lots of sun, heat, and wind, or where they're growing in sandy or gravelly soils (which retain less water and drain fast). Conversely, you'll water less frequently during cool, wet spells, in protected or shaded locations, or in clay soils (which retain more water and drain more slowly).

Most roses prefer clay soil, but all soils can (and usually should) be amended with organic matter such as compost, to improve both water retention and drainage. Mulching over the root zone also helps keep the soil moist. If you know that you cannot provide much supplemental water, please ask us for our recommendations of more drought-tolerant varieties.

To determine whether your roses need water, dig down with a trowel to a depth of 6" at the edge of the root zone of the plant. If the soil is dry, water deeply. If the soil is dry on the surface but wet at lower levels, no need to water yet. If the lower soil is soggy, you are over-watering, which can eventually kill the rose. Newly planted roses still have small root systems, so they'll need more water more frequently until established. **Water should always be applied slowly and deeply, to wet the entire root zone to at least 18" deep.**

There are many methods of watering roses. If you water by hand, you can lay the hose on the ground and let water trickle slowly from the end, or attach a bubbler or water wand.

Various irrigation systems (drip, pop-up, soaker-hose, etc.) with programmable clocks can be designed and set to water roses during the frost-free season. Winter watering will have to be done by hand (see WINTER CARE).

Overhead watering should only be done in the morning, before 10:00 a.m. so that the foliage has plenty of time to dry off before evening. This is because wet leaves promote the growth of fungus diseases such as powdery mildew, black-spot, and rust. However, even if you normally water at or below the soil level, an *occasional* overhead watering or brisk spray of water from a hose (in early morning) is beneficial, to deter spider mites.

WINTER CARE:

FROST PROTECTION: See item #6 in the MULCHING section above.

WATER: Many more roses die from desiccation in Colorado winters than from cold. We highly recommend winter watering, 3 or more gallons per rose, once a month (unless we've had *very* substantial snowfall), since rose canes and roots are likely to dry out in our strong winter sun and drying winds.

PRUNING: First of all, don't be afraid of pruning your roses - they are generally quite forgiving. The roses we sell are nearly all hardy shrub roses, Old Garden roses (antique varieties) or species (wild) roses, and they are grown on their own roots. They are not grafted, and they generally function as nice, full shrubs in the garden. **Therefore, the conventional instructions for rose care, especially pruning, will not apply, since they are usually written for grafted, tender Hybrid Tea, Floribunda or Grandiflora varieties. So, do not cut them back to 8" high!** We recommend using a **clean, sharp pair of by-pass secateurs (clippers)**, wearing **thick leather gloves** ("gauntlet" gloves are great) and **long pants**, and bringing a **wheelbarrow** for collecting the cut canes. *Any wounds to yourself, inflicted by rose thorns, should be promptly disinfected with hydrogen peroxide.*

Newly planted roses will not require any pruning unless there are damaged canes (which should be cut off). Until your rose reaches its mature size, the only pruning required will be the removal of dead or damaged (broken, scraped or borer-infested), or weak, twiggy canes (stems). This should be done before much growth occurs, between late April and late May.

During the growing season, if a stem dies or is damaged, you should prune it before it becomes an open invitation to disease or pests. Make your cut at a 45 degree angle, below the damaged area and ¼" above a live, out-facing growth point (see figure 2). Growth points or nodes occur immediately above where a leaf-stem (petiole) meets the cane. In cases of **cane-girdler**, cut at least 2" below the swollen, split area. If there is evidence of **cane-borer**, cut until you are below the damage, to just above the nearest out-facing growth point. If you have problems with cane borers, seal your cuts by applying Elmer's glue to the cut surfaces. If your roses have any fungal disease at the time of pruning, disinfect your clippers between cuts by spraying them with Lysol. Repeat-blooming (recurrent, remontant) varieties bloom on both old and new canes, and can be pruned in mid to late May, after the last hard frost or immediately after the first flush of blooms is finished. Once-blooming roses flower only on old (the previous year's) canes, so it's best to delay

pruning of live wood until just after the blooms have finished (pruning before or during flowering removes much of the wood on which the current year's flowers would have been borne).

CLIMBING ROSES: The same general instructions apply to climbing roses, but **climbers also need to be secured to a support.** Use a tie that has some flexibility and "give".

DEADHEADING: In it's first full growing season, your newly planted rose will want to save as much of it's energy as possible for establishing a strong root system. **Therefore, we recommend that you remove all flowers as soon as they are "spent" and do not allow any hips (rose fruits) to form.** This is called 'deadheading' and can be done with clippers or by just snapping off the old blossoms with your fingers.

Please consult the Rose Planting Instructions on our web-site for more comprehensive ongoing care advise for your roses as they mature. For advice regarding pests and diseases, consult your county's Agricultural Extension Service, or give us a call.

FIGURE 1

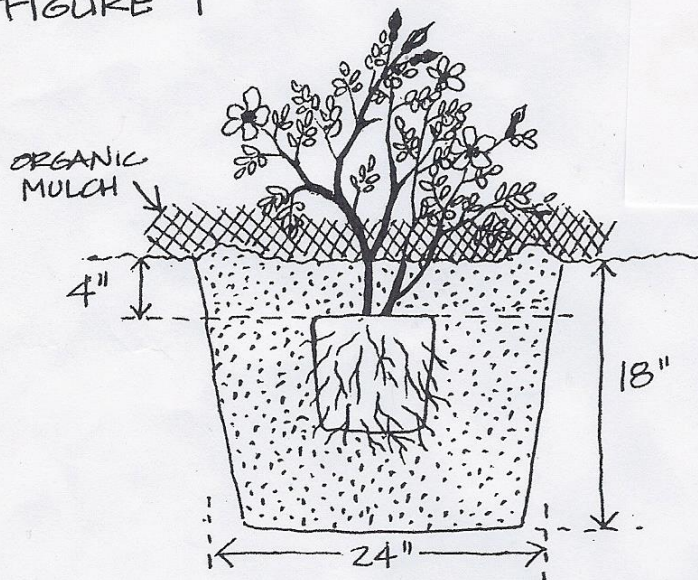


FIGURE 2



CORRECT CUTS