How to Plant a Rose:

- Roses require full sun- 8 or more hours of sunlight per day.
- Bushes should be spaced at least 2 ¹/₂' apart, (*beyond* the stated height and width i.e. if the stated width is 4' there should be 6 ¹/₂' from the center of one to the center of the other), to ensure good air circulation and allow for access. This will help to prevent disease; a mid-season thinning out narrow and wayward stems will also help to increase air circulation
- Powdery mildew, (a whitish "fuzz"), is usually indicative of poor circulation and dry conditions at the roots; water deeply
- Soil should be rich in organics- amend with garden compost and well rotted manure
- Plant with the bud union- graft, at the soil line in our zone, back fill with amended soil and water well to remove any pockets of air
- A transplant fertilizer- 5-15-5 can stimulate root growth- apply according to instructions
- Fertilizers specially formulated for roses can be applied once the bushes have leafed out
- Roses are best with even and deep watering but can be drought tolerant once well established
- Avoid overhead watering if possible as wet foliage stimulates blackspot and rust fungal diseases
- Cold tolerance varies within the genus- best to choose cultivars bred for a particular region

Planting bare root

- Bare-root roses are dormant
- They can be planted much earlier with less stress to the plant
- Container roses in full leaf send water and nutrients to their foliage
- With no foliage to support, bare root roses send all their energy to their roots
- Bare-root roses arrive in the nurseries in very early spring and are usually are less expensive
- They can be stored in a cool, dark place until planted- keep the roots moist.

How to plant:

- Soak roots for 2-4 hours until thoroughly moist
- Trim back any broken or damaged roots with sharp, clean secateurs
- Hole needs to be large enough to spread out the roots to their full extent
- With roses- Zone 4-5- plant so that the graft union is 1-2" below ground level, Zone 6-7, graft union at soil level, Zone 8- the union should be as much as 1" above the soil surface (the root flare should be level with the soil if not grafted)
- Create a hill, tamp down and try for the correct depth- can be tricky
- Spread out the roots, gently pull up and down to coat the roots with soil
- Lay a pole or tool handle over the hole to check the depth
- Fill the hole in stages, tamping down very lightly as you go to remove any air pockets. Don't compact the soil
- Roses want a very rich compost combo- maybe a dead salmon too
- Water in well
- Growth habit may be a bit erratic the first year or two- branched more horizontal than verticalleave the first year to fed the plant and remove once the leaves are gone. New growth the following year should be better behaved

Year Round Care

Spring:

- Remove old mulch from around the roses and compost and replace with clean, new mulch- this can help prevent disease spores from splashing up onto new growth; black spot, rust
- Prune each cane down to an outward facing bud
- **Remove** 1-2 of the oldest canes close to the ground if the shrub is congested, to a long forgotten leaf scar if there is one! Best done in the fall to avoid damaging new buds but can be done now
- Watch for buds that are going to form crossing, inward facing or parallel canes and gently remove as soon as possible; keep doing this all year

Roses

- Sprinkle each rose with 1 cup alfalfa pellets and 2 tbsps magnesium sulphate- Epsom salts
- Apply rose fertilizer **only** after the roses are leafed out. Start with a high nitrogen fertilizer that will stimulate new growth- fish fertilizer at 28-14-14 is a good choice
- Planting herbs, alyssum, marigolds, nepeta, (catmint) and other food sources for beneficial insects can help with pests such as aphids
- Aphid infestations can be washed off with a garden hose- leave a few to attract the beneficials!
- Organic homemade solutions to blackspot abound on the internet- check them out; most will do no harm and have varying degrees of effectiveness

Late Spring/early summer

- Once blooms begin to form switch to a high phosphorus fertilizer, (P) this will encourage bloom formation over foliage- these contain less or no nitrogen and will show a variation of 0-10-10. Any fertilizer for flowers will work too- 15-35-15. Water soluble products can be very effective- apply every 3-4 weeks. Granular, slow release fertilizers can also be used as per instructions.
- Remove the foliage from the bottom of the canes to improve air circulation
- Remove leaves showing signs of disease but leave enough to feed the plant
- Water regularly and deeply
- For climbers- be on the lookout for new, strong canes coming up that can be used next spring as replacements for older canes- gently tie down in the direction you want and protect from damage; be careful not to break at the bud- remove all buds/canes not in the right place

High Summer/late summer- depends on the year

• Stop fertilizing to slow down new growth that will not harden off before the cold weather

Mid- Fall

• Stop removing old flowers and allow roses to form hips- this will signal to the plant that it is time to stop growing and begin to harden off for winter

November/December

- Prune out to base 20% of old canes, including any crossing or parallel canes- can rub holes in the canes you want to keep. This is best done in the fall as to avoid damaging new buds in the spring, (or anytime there is a wonderful new shoot that you wish to protect
- Remove 1/3 to 2/3 of long canes to prevent wind rock
- Remove and discard all leaves- do not compost, leaves must be placed in the garbage
- Apply lime as per directions and spray with dormant oil with lime sulphur
- Mulch

Training Climbers:

- All summer, watch for new stems that can be lightly tied down in the desired direction
- Be very careful- too new or too short and they will break at the bud
- Remove all new buds/ stems that are not the best; especially from the base of the plant
- Remove the old canes after flowering; especially if they might damage the new ones (or in the winter)
- Tie into the main framework in the winter

First year	
Second and Third year	
ISPN 6202	
2 Printer V	NAME AND

Major Rose Diseases

Blackspot- fungal

- On stems: Small black scabby lesions- prune out if badly infected, fungus overwinters on the stems
- On leaves: purple black spots, leaves may turn yellow and drop
- Remove all leaves if possible- likely to be worse on the lower stems, remove all leaves in the autumn, destroy, replace the mulch below the roses and replace again in the spring

Powdery mildew- fungal

- White powdery fungal growth on the leaves and shoots, produces spores that can spread the disease
- Upper and lower surfaces of the leaves can be affected
- May be discolouration (yellow, reddish or purple)
- Heavily infected leaves can curl and distort; buds may fail to open
- Can appear on the stems- especially around the thorns
- Common in areas with high humidity, poor air circulation around the plant
- Can be cause by drought
- Increase watering and mulch, improve air circulation
- Feed regularly to encourage strong growth; avoid fertilizers with high N- produces soft growth that is more prone to disease
- Badly affected shoots are best pruned out

Rose rust- fungal

- On stems: in spring, distorted young green stems with large pustules of bright orange dusty spores
- On leaves: yellow spots on the upper surfaces, pustules of dusty orange spores on the lower surfaces; in late summer pustules turn black and leaves may drop early
- Same treatment as with black spot

Downy mildew- fungal-like

- Harder to spot; discoloured blotches on the upper leaf surface- may be pale green, yellow, purple or brown; blotches may have straight edges; there may be a corresponding mould-like growth on the underside of the leaf
- Severely infected leaves may shrivel and turn brown; plants may be stunted and lack vigor
- Remove and destroy affected leaves, remove badly infected plants- watch nearby for alternate host plants
- Avoid overhead watering, increase air circulation; avoid watering in the evening
- More common in the fall as the rains increase- just shut the plant down if really bad, (remove all the flowers, leaves and trim lightly to an outward facing bud- leave a lower one for the spring

Botrytis blight- fungal

- Affects blooms, buds, stems and leaves
- Pale blooms may have water-soaked spots with red borders
- As blooms age they are more susceptible
- Buds can turn black and fall off
- Lesions can appear on canes
- Common in areas with high humidity, poor air circulation around the plant
- Increase watering; never overhead and mulch, improve air circulation
- Feed regularly to encourage strong growth; avoid fertilizers with high N- produces soft growth that is more prone to disease
- Badly affected shoots and blooms are best pruned out; destroy all infected material
- Severely infected plants should be removed and destroyed

Mosaic- viral; affects Rosacea

- Highly variable- easily spread by insects
- Uncommon- usually not a problem in modern breeds
- Plants should be removed and destroyed; there is no treatment and they can be highly contagious; easily spread by insects and careless gardeners

- Disinfect all tools after using on an infected shrub; good practise to disinfected between shrubs regardless of obvious infection
- Aphids- small sap-sucking insects; greenfly and blackfly
 - Cluster on flower buds, shoot tips and young foliage
 - White cast aphid skins are often visible
 - Black sooty mildews may grow on the honeydew
 - Wash off with water, watch out for beneficial insects- ladybugs, lacewings, and hover flies
 - Watch for orange clusters of ladybird eggs

There are 35 classes generally grouped by variety, growth habit, colour, size, shape of flower and number and petals

N.B. Remontant; repeat flowering

Floribunda: typically grow 4-5' H. Large clusters of flowers; great plants in the middle of the bed **Grandiflora**: can reach 6' H and have long stems with three or four blooms per stem; blooms are fewer and larger than Floribunda

Hybrid tea: can be more than 6' in H – long stems with single bloom; can be over 6" across. With floribunda, are remontant, free-branching shrub roses with an upright or bushy habit Large, usually double, often fragrant flowers; bloom on shoots from second year wood and on new wood.

Climbers: typically, they reach 12 – 15 feet; some bloom in spring or early summer only; blooming on short shoots from second year wood; some are remontant and also flower on new wood

Shrub: ranges in size from groundcovers to shrubs; can have a wide range of bloom Usually scented, single to fully double, borne in few to many-flowered clusters; most are remontant and will flower on new wood

Old Garden Roses: (antique roses) these were the roses that helped create the classes above; wide range of growth habit and bloom size; often highly fragrant, usually bloom only in the spring and early summer

Rose Flower Forms:

Flat- open, usually single or semi-double flowers with petals that are almost flat

Cupped- open, single to fully double flowers with petals that curve outward and upward from the centre **Rounded**- usually double or fully double flowers with even-sized, overlapping petals forming a bowl shape and a more rounded form

High-centred- semi-double to fully double flowers with high, tight centres

Urn-shaped- semi-double to fully double flowers with inner petals that curve outward to form an urn shape and outer petals that are flatter and more spreading

Rosette-shaped- almost flat, double or fully double flowers with slightly overlapping often unseen petals **Quartered-rosette**- almost flat, double or fully double flowers with petals; often of uneven size, arranged so than the flowers appear divided 4 sections

Pompom- small rounded double or fully double flowers, usually in clusters with masses of small petals

From the A-Z

Species Roses; none are remontant with the exception of *R*. × *odorata*

Rosa glauca syn. R. rubrifolia Vigorous arching multi-stemmed, upright spreading form, full sun to very light shade in humus rich soil, medium water but can take less, clear, usually scentless, pink flowers in early summer- do not prune if hips desired, not a brilliant red but worth keeping, H 6'-8', W 5' -7', Zone 2-8 AGM winner Species rose- reddish green stems- grayish purple leaves, simple single open faced flowers, spherical hips Use in mixed borders, shrub borders, hedgerows, can have better foliage colour in light shade but will have less flowers and more disease Prone to rose gall

- 2.*Rosa moyesii* 'Geranium' Vigourous arching form to 8' H 5'or more W Bright cherry red flat flowers with cream stamens Orange red hips
- 3.*Rosa x odorata* 'Mutabilis' syn. *Rosa chinensis* 'Mutabilis' "China Rose" Old garden rose- usually one of the best for disease resistance and easy care H 3'-6' W 2'-5' Zone 6-9 AGM winner Very long flowering period- from spring until frost Remove spent flowers by "nipping" of the forming hips, no need to prune down to the next 5- leaf axil Hips are not spectacular but will form, also signals to the plant that it is time to start shutting down for the winter Name comes from mutating colour-flowers start yellow, turning coral pink, and then red, stems and leaves reddish purple tinge Can be pruned lightly in spring, 1/4 1/3 of stems but not really needed, do remove 1-2 of oldest to the ground
- 4.*Rosa rugosa* Tough and easy going Lots of good cultivars; colour range from pure white to red-highly fragrant, can be long flowering but do not deadhead to keep the shiny, deep red hips Full sun to light shade, well-draining but any soil including clay, drought tolerant Tolerates sea spray- can be used for erosion control H&W 4'-6' Zone 2-9 Patch can sucker, can be used in hedging- burglar proof, as specimen in mixed and cottage borders, self-fertile hips high in vitamin C- preserves & tisane Remove older stems to the base in the late winter, can tip the rest or just take a hedge trimmer to it