

IMPORTANT PLANTING AND PLANT CARE INSTRUCTIONS

Information to help you be more successful with Garden Joy products

In general

With the perennial market ever expanding and the variety of plants becoming larger every year, it is important to keep up with plant information. Every plant group needs special attention, and there are no generic rules. Too often growers forget that some of the roots they receive have been kept dormant in temperature controlled coolers for several months. It is quite a shock for the plant to be pulled out of dormancy and forced to grow. Some break easily, some are slow. These slow groups need more attention. Often they are over watered and then rot, or are thrown out before they actually get a chance to break.

Upon arrival

Open all cartons immediately after arrival, as the plants need fresh air. Always check plants directly after arrival and take notes of possible problems. If there are any problems, be sure to contact your sales representative immediately. Plants should be planted as soon as possible after arrival. Growers should have greenhouse space, pots and planting medium ready. (Check bottom of confirmation for approximate arrival date). If plants cannot be planted immediately they should be stored in a cool location, preferably at a temperature around 35F. Also make sure that you keep the cartons out of the sun and from too much ventilation, plants dry out very quickly.

Do not store the plants in closed boxes, as this will create condensation and might cause the roots to start rotting. If you detect this problem, make sure you take these plants out of the boxes. You cannot store these roots any longer they have to be potted immediately. If possible remove the infected parts or dip the roots in a fungicide prior to planting.

Soil

Most growers work with their own mixture or with a "ready to go" mixture. Ideally the mix should contain +/- 33% peat, +/- 33% aged bark and +/- 33% topsoil. Well drained, rich soil is of primary importance for perennials. Most problems come from lack of adequate drainage. Make sure that the mixture you use has good drainage.

Planting and Maintenance

Please read the special planting instructions on these four pages. It is important to plant at the correct depth. Directly after planting the roots, water the plants thoroughly. Then do not water until the soil starts to become dry, or at the dry side of moist. Take a small sample of soil in your hand; if it doesn't form a ball but crumbles, you need to water.

The number 1 problem we find is dormant plants being over watered.

Remember, these plants have none or very few feeder roots and can only accept very little moisture. They need to be forced to look for water. The plants need a stimulant to initiate root growth. By keeping the soil on the dry side, you will force the plant to seek water. Caution should be taken because if too dry, this can lead to excessive wilting and death of the plant. Also the light intensity is still low early in spring and the plants and soil do not evaporate much of the moisture. Check soil carefully before watering again! The soil must remain warm, if soil stays cold too long the roots will not grow and finally rot. Therefor a heated greenhouse or hoop house would be ideal.

Frost protection

Plants are tender directly after planting, so be sure to protect against frost or freezing temperatures. Avoid heavy fluctuations in temperatures in the greenhouse or cold frames. Keep temperature in greenhouses around 45-50F at night and below 65-70F during daytime. The soil has to be kept warm, wet and cool soils will rot plants. If you keep the plants too warm they will get too leggy and floppy. By keeping them cooler they will grow better roots and form a stronger plant.

Note

A normal pH is 6.5 to 7 A slightly acid pH is 5.5 to 6 *Just below soil level* is less than 1" below soil level



Watering:

Look at each group individually if they need watering. Some groups need water every day while others not even once a week. Check the soil to be sure it is needed. Too much water kills! Early in the season, try to avoid watering overhead. Later in the season when plants are established and actively growing, watering can be done by sprinkler systems. The most important "rule" for responsible watering is:

Never count on Mother Nature to do the watering for you!

Greenhouse location and ventilation:

To avoid mildew and to stimulate growth directly after planting, it is important to select a high light intensity location for your plants. Early spring or winter sun is always good to promote growth. Ventilation is often underestimated, but critical for success. Greenhouses with little ventilation are sure to have problems with mildew and fungus.

Fertilizing

Avoid using any slow release fertilizer in the soil mix until it starts getting warmer (April 1st in the north). Some fertilizer is released when it's cool and cloudy, and because the plant doesn't get watered very much, the fertilizer never gets purged through the soil, causing a salt build up. Top dressing after April 1st with slow release or liquid fertilizer is okay.

Winterizing

When plants are carried over for next spring the pots should all be checked. Remove dead or diseased looking plants and be sure the soil level is up to the crown of the plant. Place the containers side by side on the ground and be sure to have a dependable cold weather cover ready. We recommend using micro foam blankets. Although they are quite labor intensive, the results are usually good. They can easily be removed on warm spring days. Don't forget setting baits and traps is important during the winter; rabbit, deer and other rodent damage is likely to occur as their food source is depleted in their natural surroundings.

Pruning or pinching

On late summer or fall blooming plants, it is a good idea to space plants for better air circulation. At the same time, cut these plants back 30 to 40% to get a fuller and more compact plant. Do this in early summer, around June 15 / July 5. If you have plants left over after they are done blooming make sure that you dead head them so that you will get more growth and sometimes even a second flower period.

Marketing and sales tips

Before you send your plants out or put them out for sale, make sure that the roots are well established. Too often we see plants on the market, which almost fall out of their pot or are growing at an angle. Also make sure that the plant looks healthy, no burned leaves etc. The best time to sell most plants is just before they flower. Picture tags are a great help to make the sales season longer.

Claims or Comments

If you run into anything that is not acceptable to you as a grower, we need to know. Please call your sales representative and explain in detail where you have experienced the problems. We will do anything we can to help you and make our organization better in the future. We do our best to ship viable, healthy plants, but we understand that problems do occur. If you feel there is a problem, please write within 10 working days of receipt of your order so we may render any possible assistance. In all cases <u>we need pictures</u> of the individual plants, the complete shipment, roots etc. If your shipment has been damaged or shorted, note this on the delivery documents and file a claim with the carrier right away. Also please notify us of any delays. All claims, damages, spoilage and shortages must be reported to us in a written note or letter stating the problem within 10 working days.

Claims received after this period or claims that are not supported by pictures will be respectfully declined.





PLANTING INSTRUCTIONS

Group	Pot Size	Planting Depth	Location	Remarks
Achillea	2 Qt /1 Gallon	Just below soil level	Full Sun	OK to run dry at times after growth starts.
Aconitum	2 Qt /1 Gallon	Crown at soil level	1/2 to 2/3 sun	Moist at all times but not overly wet for long periods of time.
Actaea (Cimicifuga)	2 Qt /1 Gallon	Just below soil level	1/2 to 2/3 sun	Keep soil on the dry side until new roots are seen at edge of pot, then soil should be kept moist.
Agapanthus	1 Gallon	Just below soil level	Full Sun	OK to run dry at times after growth starts.
Alchemilla	2 Qt /1 Gallon	Just below soil level	1/2 to 2/3 sun	Moist at all times but not overly wet for long periods of time.
Allium	2 Qt /1 Gallon	Just below soil level	1/2 to full sun	Well-drained soil.
Alstroemeria	2 Qt /1 Gallon	Just below soil level	Full Sun	Moist at all times but not overly wet for long periods of time.
Anchussa	2 Qt /1 Gallon	Just below soil level	Full Sun	Moist, well-drained soil
Anemone	2 Qt /1 Gallon	Just below soil level	3/4 to full sun	Well-drained soil, keep on dry side early in season.
Aquilegia	2 Qt /1 Gallon	Just below soil level	1/2 to full sun	Start on dry side until growth starts, then keep moist.
Aruncus	1 Gallon	Just below soil level	Shade	Start on dry side, then keep slightly moist, and never wet!
Asclepias	1 Gallon	1-2" below soil level	Full Sun	OK to run dry at times after growth starts.
Astilbe	- T Gallott	-	- Tuli Suli	See special growing instruction sheet
Astribe	-	-		Slow to establish, keep soil on dry side of moist until root and
Astrantia	2 Qt /1 Gallon	Just below soil level	3/4 to full sun	top growth show.
Bergenia	2 Qt /1 Gallon	Just below soil level	Shade	Start on dry side, then keep moist at all times.
Brunnera	2 Qt /1 Gallon	Just below soil level	1/2 to 2/3 sun	Start on dry side until growth starts, then keep moist.
Calla	-	-	-	See special growing instruction sheet
Campanula	2 Qt /1 Gallon	Just below soil level	Full Sun	Start on dry side until growth starts, then keep moist.
Canna	2 Qt /1 Gallon	Just below soil level	Full Sun	Full sun Rich soil and good moisture supply
Chelone	2 Qt /1 Gallon	Just below soil level	Full Sun	Start on dry side, keep soil moist after plants break.
Clematis	1 Gallon	Just below soil level	1/2 to full sun	Keep soil on the dry side of moist until growth shows.
				Moist at all times but not overly wet for long periods of time.
Convallaria	2 Qt	Pip at soil level	1/2 to 3/4 sun	Plant roots horizontally about ½-1" below soil.
Crocosmia	2 Qt /1 Gallon	2-3" below soil level	Full Sun	OK to run dry at times after growth starts.
Dahlia	-	-	-	See special growing instruction sheet
Darmera	1 Gallon	Just below soil level	1/2 to 3/4 sun	Start on dry side until growth starts, then keep moist.
Damioia	1 Gallon	Crown at or just above	1/2 to 6/1 can	Start on any olde drivin growth starte, then help mole.
Dicentra	1 Gallon	soil level	1/2 to 3/4 sun	Start on dry side, then keep slightly moist, and never wet!
Echinacea	2 Qt /1 Gallon	Just below soil level	Full Sun	Start on dry side until growth starts, then keep moist.
Echinops	2 Qt /1 Gallon	Just below soil level	Full Sun	Ok to run dry at times
Epimedium	2 Qt /1 Gallon	Crown at soil level	1/2 to 3/4 sun	Start on dry side until growth starts, then keep moist.
<u> </u>	Z Qt / T Gallott	Crown just above	1/2 to 5/4 3011	Otart on any side until growth starts, then keep moist.
Eremurus	1 Gallon	soil level	Full Sun	Moist at all times but not overly wet for long periods of time.
Eryngium	2 Qt /1 Gallon	Just below soil level	Full Sun	Ok to run dry at times.
Eucomis	2 Qt /1 Gallon	Just below soil level	Full Sun	Moist, well-drained soil, protect for frost
Eupatorium	2 Qt /1 Gallon	Just below soil level	1/2 to full Sun	Start on dry side until growth starts, then keep moist.
Filipendula	2 Qt /1 Gallon	Just below soil level	Full Sun	Moist at all times, drought damage does not recover.
Geranium	2 Qt /1 Gallon	Crown at soil level	1/2 to full Sun	Start on dry side until growth starts, then keep moist.
Gillenia	2 Qt /1 Gallon	Just below soil level	1/2 to full Sun	Moist at all times but not overly wet for long periods of time.
Gladiolus glamini	2 Qt / I Gallon	Just below soil level	1/2 (0 1011 5011	See special growing instruction sheet
	2 Gallon	2" below soil level	1/2 to full Sun	
Gunnera Helenium				Moist at all times but not overly wet for long periods of time.
	2 Qt /1 Gallon	Just below soil level	Full Sun	OK to run dry at times.
Helianthus	1 Gallon	Just below soil level	Full Sun	Ok to run dry at times after growth starts.
Heliopsis	1 Gallon	Just below soil level	Full Sun	Ok to run dry at times after growth starts.
Helleborus	2 Qt /1 Gallon	Crown just above soil	1/2 to full shade	Spray with Phizolog 5 7 days after planting
Hemerocallis	- Qt / i Galloff	level	-	Spray with Rhizolex 5 – 7 days after planting. See special growing instruction sheet
i iemerocallis	-	 -	-	Start on dry side until growth starts, then keep moist.
Heuchera	2 Qt /1 Gallon	Just below soil level	1/2 to full shade	Keep greenhouse humidity down to avoid mildew on stems.
	Gt/ : Gdilo/i	2201 201011 3011 10401	./L to fall offado	Start on dry side until growth starts, then keep moist.
Heucherella	2 Qt /1 Gallon	Just below soil level	1/2 to full shade	Keep greenhouse humidity down to avoid mildew on stems.
Hosta	- Qt / i Galloff	- Cust bolow soll level	-	See special growing instruction sheet
110814	 -	Crown just above soil	 -	Oce special growing instruction sheet
Incarvillea	1 Gallon	level	Full Sun	Start moist, water heavy after growth increases
				Start moist, water heavy after growth increases.
Iris chrysographes	2 Qt /1 Gallon	Just below soil level	1/2 to 3/4 sun	Start moist, water heavy after growth increases.



Group	Pot Size	Planting Depth	Location	Remarks
•				Start on dry side until growth starts, then keep moist
Iris ensata	1 Gallon	Crown at soil level	Full Sun	prefers slightly acid soil.
Iris germanica	-	-	-	See special growing instruction sheet
Iris Iouisiana	1 Gallon	Just below soil level	Full Sun	Moist at all times, drought damage does not recover.
Iris pallida	1 Gallon	1-2" below soil level	Full Sun	OK to run dry at times after growth starts.
Iris pseudacorus	1 Gallon	Crown at soil level	Full Sun	Start like other Iris, water heavy after established.
•				Start on dry side until growth starts, then keep moist
Iris siberica	1 Gallon	Crown at soil level	Full Sun	prefers slightly acid soil.
Kirengeshoma	2 Qt /1 Gallon	Just below soil level	1/2 to 3/4 sun	Moist at all times but not overly wet for long periods of time.
Kniphofia	2 Qt /1 Gallon	Just below soil level	Full Sun	Ok to run dry at times.
Liatris	2 Qt	3-4" below soil level	Full Sun	OK to run dry at times after growth starts.
Ligularia	1 Gallon	Just below soil level	1/2 to 3/4 sun	Moist at all times but not overly wet for long periods of time.
Lilium	2 Qt /1 Gallon	4" below soil level	Full Sun	After bulb growth shows above soil level, keep soil moist.
Paeonia	-	-	-	See special growing instruction sheet
Paeonia Suff.				
(Japanese Tree P.)	-	-	-	See special growing instruction sheet
Papaver	-	-	-	See special growing instruction sheet
Phlox	2 Qt /1 Gallon	Just below soil level	Full Sun	Full sun Start on dry side until growth starts, then keep moist.
				Start on dry side, then keep slightly moist, and never
Polygonatum	2 Qt /1 Gallon	Just below soil level	1/2 to 3/4 sun	wet! Plant roots horizontally about ½-1" below soil.
Potentilla	1 Gallon	Just below soil level	1/2 to full shade	Start on dry side, even after growth starts.
Pulmonaria	2 Qt /1 Gallon	Just below soil level	Shade	Start on dry side until growth starts, then keep moist.
			Full Sun,	
Rheum	1 Gallon	Soil level	partial shade	Fertile, well-drained soil
Rodgersia	2 Qt /1 Gallon	Just below soil level	1/2 to 3/4 sun	Moist at all times but not overly wet for long periods of time.
Rudbeckia	2 Qt /1 Gallon	Crown at soil level	Full Sun	OK to run dry at times after growth starts.
Salvia	2 Qt /1 Gallon	Just below soil level	Full Sun	Start on dry side until growth starts, then keep moist.
Saguisorba	2 Qt /1 Gallon	Just below soil level	1/2 to full Sun	Fertile, moist soil
Sedum	2 Qt /1 Gallon	Just below soil level	Full Sun	Ok to run dry at times after growth starts.
Sidalcea	2 Qt /1 Gallon	Just below soil level	Full Sun	Start on dry side until growth starts, then keep moist.
Thalictrum	1 Gallon	Just below soil level	Full Sun	Start on dry side, then keep slightly moist, and never wet!
Tradescantia	2 Qt /1 Gallon	Just below soil level	Full Sun	Moist until plants grow rapidly, then keep wet at all times.
Tricyrthis	1 Gallon	Just below soil level	1/2 to 3/4 sun	Start on dry side, then keep slightly moist, and never wet!
Trollius	2 Qt /1 Gallon	Just below soil level	Full Sun	Moist at all times but not overly wet for long periods of time.
Veronica	1 Gallon	Just below soil level	1/2 to full sun	Ok to run dry at times after growth starts.