

How to Treat a Newly Acquired Plant

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New plants are always a delight. You can plop them down in an open space and most will do fine after a little adjusting (that means BURNING in Arizona in August.) You can do things in such a way they take off and grow as though they were born here.

Most of the plants you buy from commercial sources will be infested with mealy bugs, scale, or other pests, especially if they come from cold-winter climates and were kept in greenhouses year-round. It's just a fact of the nursery business. Bugs have short generation times, requiring frequent spraying with expensive pesticides for optimum control; they hide in crevices well and are easy to miss with the spray nozzle; and they become resistant to pesticides rapidly. California has banned commercial use of all effective pesticides on decorative plants. (On food crops, they still allow frightening poisons.) Some plants are more affected than others including Asclepiads and Pachypodiums will usually have some hiding in cracks, and many cacti from California have root mealybugs. You need to treat all your new plants before they infest the rest of your collection.

It is simple but not necessarily easy. Repotting new plants is best; you get to inspect the roots and base of the stem, they will need different-sized pots here, you probably use different soil than the plant was grown in, and you may wish to put the plant into a nicer pot. Begin by unpotting the plants and removing ALL the soil. Use the spray from a garden hose, an air jet from a compressor, or swish the roots vigorously in a tub of water. Discard the old soil (or sterilize/solarize if you wish to reuse. Leave it in the sun away from other plants for a week to kill any bugs in there.) Inspect the plants for signs of bugs. If you mail-ordered bare-root plants, most of the work has been done for you.

Treat the bare-root plant with something to kill bugs even if you can't see any. Rubbing alcohol mixed with a few drops of dish detergent works well, but you will have to spray the plant with this every 3-4 days for 3 weeks; it does not kill the eggs and generations are short in the heat. Use a soft brush to work into all the crannies. Some people prefer to spray the plants with an insecticide. After treatment, let the plants dry for a few days in the shade before repotting. Inspect again just before repotting; retreat if needed. It is much easier to eliminate bugs from bare-root plants than from those in pots. I have been sorry every single time I didn't repot a new plant shortly after acquiring it.

Imidacloprid is a chemically-modified nicotine derivative. It is highly toxic to bugs but not very toxic to us, and is absorbed by plants, killing bugs that eat those plants. It is one of the few reliable mealy bug killers. It is sold as Marathon and Bayer Grub Granules, and comes in fine granules. A quarter teaspoon in the potting soil of a four inch pot will work well. Be sure not to get the dust inside any of your openings to the outside world. Unfortunately, Marathon is extremely expensive, sold in large containers only, and not sold in home retail outlets. It is available at agricultural supply businesses. Since a little goes a long way, some clubs have purchased a container and divided it up. This is against the labeling for the product and I am not recommending you violate

Environmental Protection Agency regulations. I am just reporting what I have been told. Bayer Grub Granules can be found at Ace Hardware stores but not at the orange monster, which now carries only permethrins.

After the normal drying period, repot your plant into a new pot with new soil. Water per your preferences after repotting; I always water cacti, pachypodiums, and summer-growing mesembs immediately, but wait a few days for ascleps, euphorbs, and winter-growing mesembs. Don't just put a new plant outside with your other plants! It's weak and not used to our sun and heat.

You know what would happen to any of your plants if you moved them suddenly to the west side of your house, or from a greenhouse out into full sun, without a little babying. Well, the same goes for plants you just bought, especially plants coming to Arizona from California in the summer. Even those grown in full sun in California are not prepared to handle an afternoon of Phoenix sun. This goes double for landscape plants; they have grown in their pots, cheek to cheek with others just like them, carefully watered, and perhaps under shade cloth. Now, put that one gallon plant into a crushed granite landscape in full sun, and it will dry up.

Place newly-acquired potted plants in a very shady part of your collection for a week or so. Inspect them every few days; even in what you think is shade may be too sunny for them. If the plant begins yellowing, move it to someplace shadier still. After a week of looking okay, move that plant into a little more sun. Continue this week-by-week adjustment period until the plant is where you want it. If it ever turns yellow or white, move it back into a little more shade.

For landscape plants, I would either leave them in the pots in a lot of shade or wait until late October to plant them, or I plant them during hot weather and cover them with shade cloth until November. It does look a little funny but your neighbors certainly know you're strange already. Tack the shade cloth down securely or it will blow off in a monsoon storm just after you leave for a weekend in Flagstaff.

Don't forget fertilizer! The faster seedlings grow to marketable size, the sooner the grower gets paid. Most growers fertilize far heavier than do hobbyists. The late Steve Southwell of RSVP Nursery in San Jose said a large commercial grower in Vista uses full-strength Peters fertilizer with micronutrients at every watering. Grigsby's reports they use full-strength Peters once a week for three weeks and regular tap water the fourth week, then repeat the cycle. These plants are fat, puffy, and often carefully shaded. They are bright green and round. Move that plant to your growing condition with much less fertilizer, and the plant suddenly makes nice, tight growth with dense spines, but the diameter is smaller and it now looks funny. To prevent this, fertilizer new plants heavily at first and gradually taper off on the fertilizer.

When you go on a buying trip, it is tempting to leave those plants together in one place in the original pots. Don't! They will grow much better for you over the long term if you

remove the pests, put them in an appropriate pot and soil for your growing habits, and move them to appropriate conditions in your collection.

Winter-growing plants require a little more care. They are sleeping in the summer and can't even imagine our temperatures in their most horrifying nightmares. I do repot these plants and treat them for bugs, but after repotting, I don't water them except for a brief spritz with a spray bottle a few days later. I keep them inside my house on a window sill all summer, until night temperatures are really cool, mid October or later. Plants such as *Argyrodema*, *Cheiridopsis*, *Crassula*, *Echeveria*, and *Mitrophyllum* are sure to die if you bring them from cool coastal California to Arizona in the summer and put them outside. *Conophytum* from California are still more tender; they will require regular misting, just to dampen the surface of the soil, all summer long or they shrivel and die before temperatures fall enough for them to commence growth.