

Fertilizer and Light: how do you tell if you're giving too much?

It's a fact: more orchids perish in the hands of new growers by over-watering and over-fertilizing than by any other means. Because they are such slow growers compared to tropical foliage houseplants, when orchids show any sign of "negative" change—a dropped leaf, a shriveling pseudobulb—most new growers feel that they have to *do* something to compensate and "fix" the matter, and what they typically do is reach for the watering can and the fertilizer mix. They water; they fertilize; and now, secure in the belief that they've done something "positive" for their plant, new growers get perplexed when the orchid doesn't immediately respond, or responds "poorly:" more dropped leaves, more shriveled pseudobulbs. The new grower responds with—more water! More fertilizer! All too soon, the orchid's roots are dead and rotting, and its leaves are fertilizer-burned when, actually, a few dropped leaves or a moderately shriveled pseudobulb are part of an orchid's natural and normal growth process!

So how much fertilizer is too much, and what are some of the signs of overfeeding?

Consider: in the wild, where orchids live perched on the branches of trees or the sides of cliffs, the only fertilizer available to them is whatever nutrients happen to be dissolved in the rainwater that hits their roots: nutrients derived from water washing over dead insects, the occasional bird dropping, or dead bark. It's not a whole lot of nutrition. Orchids have evolved to not only tolerate but to flourish in scarcity. They store water and nutrients in thick pseudobulbs, or fleshy leaves and roots. Not only do they have no use for overabundance, they will actually suffer under its weight. Too much fertilizer will burn an orchid plant, at the roots (which will turn black) and at the leaves (where the tips will turn brown and begin to die back.) If the leaf tips of your orchid are all turning brown, and you have a crusty white build up of fertilizer salts on your growing medium or around the drainage holes of your orchid's pot, you are definitely over-fertilizing and need to feed less.

The burn resulting from too much light looks quite different. Dark brown, sometimes raised blotches will appear randomly along the leaves, not just at the tips. Too much light may also bleach the colour from your orchid's leaves or, in some cases, turn the leaves' colour a deep, almost purplish red.

The key is this: the more light and warmth your orchid requires, depending on genus, the more fertilizer you can expect it will use. It follows, then, that during the late spring and summer months when the sun is strongest and the days long, your orchid will tolerate (and thrive with) more fertilizer. In the autumn and winter, cut the fertilizer back.

Use a balanced fertilizer mix developed for ornamental plants and flowers (the brand isn't as important as the balance: 16-5-14,. High nitrogen fertilizers (24-3-10) will make your orchid look green and lush, but you can bet that its flowers, if it even does flower, will be small and disappointing. Mix the fertilizer at ¼ to 1/3 the strength recommended by the manufacturer on the box, and pour that solution over your plant once a week, in the morning, so that your plant's leaves will have a chance to dry off before nightfall. Four days later, water your plant with just plain water, no fertilizer. The water will flush out any fertilizer salts that may have built up around your orchid's roots and keep them from burning. (This watering / fertilizing schedule applies to orchids potted in bark or some type of bark mix. Orchids potted in sphagnum moss or some other medium that retains a lot of water should be watered and fertilized less frequently. The medium should never remain soggy for days and days on end.) If you miss a fertilizing session or two, (or three...) don't double the fertilizer strength next time to make up for it! Just resume the proper schedule and dilution rate. Your orchid will be absolutely fine.

What about Light?

Most orchids need bright, diffuse light to thrive and re-bloom. If your orchid's leaves are bleaching out, turning a dark red, or are hot to the touch, it is getting too much light. Move it back from the window or cover the window with sheer curtains to diffuse the light and reduce the light's intensity. On the other hand, if your plant is not getting enough light, its leaves will turn a dark, dark green, new growth will be smaller than the old growths, and blooming will rarely occur. Further, if the leaves are a dark, dark green and the plant is looking leggy, straggly, and "weak," it is getting too little light, and too much fertilizer! Increase the light, and cut back on the food!

Orchid-growing is an exercise in patience and balance. Once you've learned the balance required by your plants under your growing conditions, your orchids will thrive and bloom for you again and again.

Good growing!