

Chapter 1

Getting the Lowdown on Orchids

In This Chapter

- ▶ Getting to know orchids
 - ▶ Deciding whether orchids are right for you
 - ▶ Knowing what to do for your orchids each month of the year
-

You're about to enter the wonderful world of orchids. You're in store for an exciting adventure! This is the largest plant family on our planet with an estimated 30,000 wild types (species) and many more man-made varieties. No other plants can compete with orchids for their power to seduce and bedazzle the most jaded plant lover with their fantastically beautiful flower colors, shapes, and textures, and heady and sensuous perfumes.

Understanding What Makes an Orchid an Orchid

You can easily tell when a rose is rose, but orchids are quite a bit more complex and varied when it comes to their flower shapes and the construction of their leaves, stems, and roots. In Part III, I give you lots of information on flower, leaf, and stem construction of specific orchids. In this chapter, I talk generalities.

Certainly the flamboyant colors of modern orchid hybrids are a standout and are the primary reason these plants are so treasured. But there are so many different types of orchid flowers, so the question is, "Which one is typical?" There is really no correct answer to this question. Many people think of the cattleya-type orchids (see Chapter 11), while others may picture moth orchids (see Chapter 10).

To get a better idea how orchid flowers are constructed, take a look at a typical cattleya flower and compare it to a more ordinary

10 Part I: Welcoming Orchids into Your Life

flower, a tulip (see Figure 1-1). Table 1-1 shows some of the major differences between these two flowers.

So what makes an orchid an orchid? The column. This fused sexual structure located in the middle of the flower is what separates the orchid from all other plants.

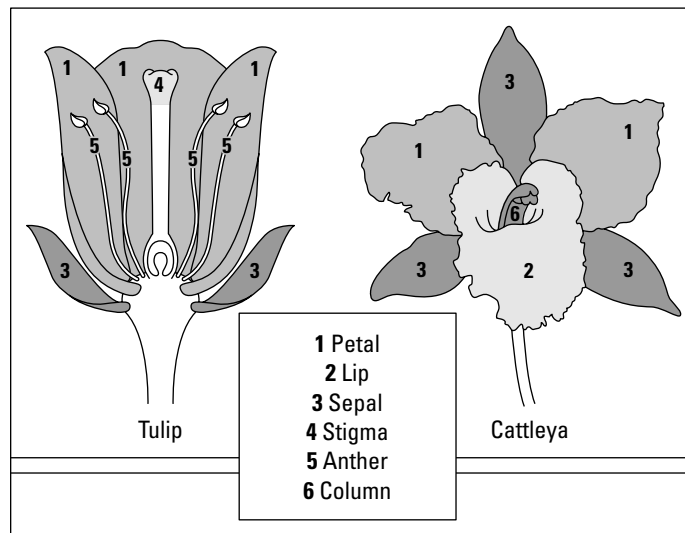


Figure 1-1: Comparing a cattleya flower with a tulip flower.

Table 1-1 Differences between Tulip and Orchid Flowers

<i>Flower Part</i>	<i>Tulip</i>	<i>Orchid</i>
Petals	The most obvious part of the flower and what makes a tulip look like a tulip.	A very prominent part of the flower but comprises only half of the show.
Sepals	Hardly noticeable in the tulip flower, especially after they open.	Very striking in many orchid flowers. Can be as brightly colored as the petals.
Lip or labellum	Not found in the tulip.	Usually a very showy part of the orchid flower. Actually a modified petal.
Anther and stigma	The two sexual parts of the tulip. The anthers are male reproductive organs and the stigma is the female part.	These separate organs are not found in the orchid; instead, orchids have a column in which the male and female parts are fused.
Column	Not found in tulip.	Only found in orchids.

Knowing Where Orchids Come From

About 80 percent of orchids are from the tropics in both the New World (Central and South America) and the Old World (Asia and Malaysia). A smattering can be found in North America and Europe.

The ones that grow in your home, though, are all of tropical or semitropical origin. They mostly hail from areas of high rainfall and humidity and enjoy tropical to above-freezing temperatures during the winter.

Orchids are divided into two major categories based on where they grow. Those that are commonly found clinging to branches of trees are called *epiphytes*; those that thrive growing on or in the ground are called *semiterrestrials* and *terrestrials*.



So how can you tell the difference between the two? Many of the terrestrial roots are hairy, like those found in the slipper orchid (see Figure 1-2). Epiphytes have thick roots (called *aerial roots* because they're frequently suspended in the air), which are covered with a silvery material called *velamen*, which can absorb moisture from the air like a sponge (see Figure 1-3).

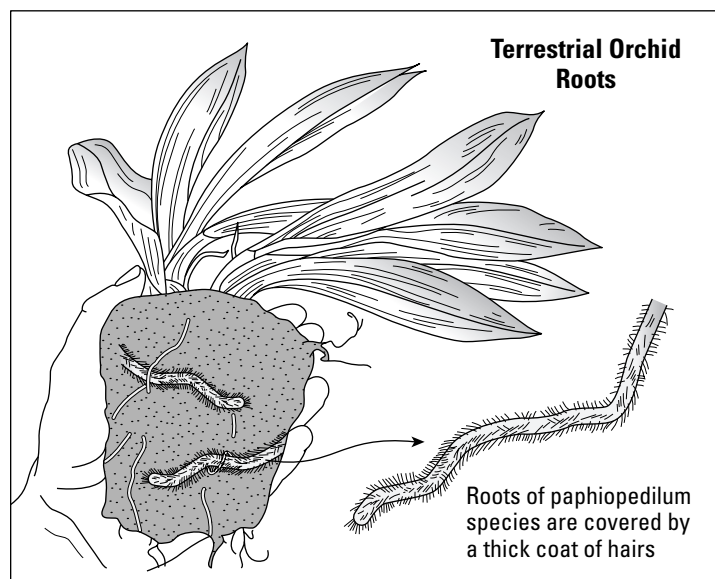


Figure 1-2: Terrestrial and semiterrestrial orchids, like most slipper orchids, frequently have hairy roots.

12 Part I: Welcoming Orchids into Your Life

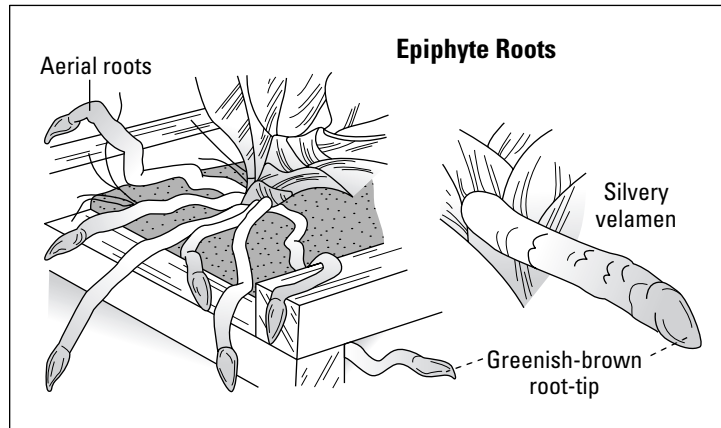


Figure 1-3: Epiphytic orchids have thick roots covered with silver velamen.

Seeing Why You Should Grow Orchids

Growing and studying orchids will provide you the ultimate horticultural experience and pleasure. Here are some key reasons to start growing orchids now:

- ✓ **Growing orchids is fun!** That's the most important motive.
- ✓ **Orchids are easy to grow.** See Chapter 5 for tips on how to be successful.
- ✓ **You can start with beginner orchids that any newcomer can be wildly successful with.** See Chapter 15 for some plants to start you off.
- ✓ **Orchids cost less than they ever have, and you can easily select just the right one for you.** See Chapter 2 to make this process a snap.
- ✓ **No group of flowering plants comes close to the delicious perfumes that orchids emit.** Pay attention to the Fragrance icon used throughout this book to find the most-fragrant orchids.
- ✓ **Orchids are available from “box” stores, specialty growers, orchid shows, garden centers, botanical gardens, orchid societies, and mail-order suppliers.** See the appendix for a list of suppliers.

- ✔ **Because of the huge diversity of orchids, you'll never tire of them.** You'll always find new ones to try and enjoy. Check out the chapters in Part III for some of the many possibilities.
- ✔ **You'll meet new friends who are as fanatical about these plants as you are.** See the appendix for lists of orchid societies to join. Their magazines are a marvelous source for information and gorgeous pictures. These are some of the best-quality plant magazines in the world.
- ✔ **Orchids don't require an expensive greenhouse to grow.** They'll be happy with a windowsill or artificial lights. See Chapter 5 for the skinny on how to grow these orchids to perfection in your home.
- ✔ **They'll beautify your home and life.** See Chapter 4 for some tips on how to enjoy them to the fullest in your home.
- ✔ **Orchids can live forever, so as they grow you can divide and multiply them to share with your friends or to trade for other orchids.** See Chapter 8 for more tips on dividing and multiplying your orchids.

Deciding Which Orchids to Bring into Your Home

Choosing an orchid is an exciting, but sometimes confusing, decision! So many types of orchids, so little space. In this book, I make this process easy for you:

- ✔ Check out Chapter 2 to walk through some of the steps to take in deciding what orchid will fit in with your home environment and suggestions of where you can scope out and purchase them.
- ✔ Consider starting your orchid collection with moth orchids. They're the most foolproof of all. See Chapter 10 for details about these.
- ✔ Next check out slipper orchids, another easy group. See Chapter 12.
- ✔ Then, if you want to try others, look over Chapter 15 for some of the easiest orchids to grow.
- ✔ When you're ready to expand or you want more choices, check out all the other orchids in Part III.

14 Part I: Welcoming Orchids into Your Life

Getting to Know Your Orchids by Name

Probably one of the most intimidating hurdles that the beginning orchid grower faces is the complex names given to orchids. When you realize what an immense group of plants this is, you'll soon come to realize why most orchids are referred to by their Latin name rather than a common name. Actually, very few orchids even have a common name. In this book, I always use the Latin name, because that's the universally accepted name, and I add a common name when there is one.



Why do I care that an orchid was awarded?

Awarded orchids are the *crème de la crème* of the orchid world. They've been deemed this distinction by trained, discriminating orchid judges. The American Orchid Society, a nonprofit educational organization that is dedicated to the study of orchids has established the judging criteria. Similar organizations serve the same function in other parts of the world.

At each accredited orchid show, a covey of judges carefully examines orchids that are exceptional. They use Internet connections to check all existing records of the orchids being judged. They look for ones of the same *grex* or similar parentage to see what has been awarded in the past to serve as a benchmark of excellence. These records will reveal which of their parents have been awarded, what size and number of flowers were on the awarded plants, and so on. These criteria are then used to decide if these specimens are indeed superior to others of this type and whether they're worthy of awards. The three award categories used by the American Orchid Society that you're most likely to encounter are (from highest to lowest):

- ✓ **First Class Certificate (FCC):** This is the coveted highest award that only a handful of orchids (10 or 15!) receive every year.
- ✓ **Award of Merit (AM):** Usually a few hundred orchids win this distinction every year.
- ✓ **Highly Commended Certificate (HCC):** Another few hundred orchids are given this level of award.

Very few orchids make it through this gauntlet. Because of modern cloning techniques (see Chapter 2), you can now obtain these prize winners for your own collection at very reasonable prices. Some types of orchids, like the slippers, are not yet able to be cloned, so in that case, picking out those hybrids with awarded parents is a good idea. **Remember:** It takes the same amount of space to grow a high-quality orchid as it does a poor one, so why not grow the best?

Chapter 1: Getting the Lowdown on Orchids **15**

If you struggled through high school Latin classes as I did, you may have thought (and hoped) that this language died with the Romans. Alas, it is alive and well in the natural-science world, and it's the standard language used to name flora and fauna. You'll start to make friends with Latin as its use become more familiar and comfortable to you.

Taking the name a little at a time makes it easier to digest. In the following sections, I show you the names, one word at a time, of a species orchid and then a hybrid.

Species orchid names

Plants that are sold as they were created by nature, not hybridized by man, are referred to as *species orchids*. They have two names: the genus name, which comes first and is capitalized, and the species name, which comes second and is lowercase. Both names are in Latin, so they're italicized (which is just the way foreign languages are usually treated).

You may see a third part to the name, the botanical variety, after the species name. This is a name given to an orchid that varies somewhat — it could be a larger flower or one with slightly different coloration — from the standard species. It will be preceded by the letters “var.” and will be in lowercase and in Latin.



TIP The genus name is much like your last name and the species name is like your first name. In other words, orchid naming is backward to the way you say your own name. If my name were written as an orchid's is, I would be *Frowine steven*.

Here's an example of the name of a species orchid: *Cattleya walkeriana* var. *semialba*. Table 1-2 explains the orchid's name.

Table 1-2 The Components of a Species Orchid Name

<i>Part of Name</i>	<i>Name</i>	<i>Explanation</i>
Genus name	<i>Cattleya</i>	The first name of the orchid is the genus and is like your last name. It's always capitalized and in Latin.
Species name	<i>walkeriana</i>	The second name of the orchid is the species. It's always in lowercase, italicized, and in Latin.

(continued)

16 Part I: Welcoming Orchids into Your Life

Table 1-2 (continued)

<i>Part of Name</i>	<i>Name</i>	<i>Explanation</i>
Botanical variety	var. <i>semialba</i>	Sometimes, a third name appears for a species orchid. This is called a botanical variety and means this form of this species has something special about it (for example, flower shape or color) that separates it from the more common form of the species. This name is in lowercase, italicized, and in Latin.

Hybrid orchid names

Oh, it would be so simple if naming stopped here, but man got mixed up in all this and started developing *hybrids*. Hybrids result from *crossing* two species (taking the pollen from one orchid to use it to “mate” with another). A marvelous thing happens when two different species of orchids are crossed or mated to each other. Their progeny is usually stronger, easier to grow, and frequently produces larger flowers than either of its parents — which is why hybrids are so desirable and popular.

Here’s an example of a hybrid orchid name: *Brassocattleya* Cynthia ‘Pink Lady’ HCC/AOS. (See the color section for a photograph of this orchid.) Table 1-3 breaks down the name and explains its various parts.

Table 1-3 The Components of a Hybrid Orchid’s Name

<i>Part of Name</i>	<i>Name</i>	<i>Comments</i>
Genus	<i>Brassocattleya</i>	This genus combines two different genera — <i>Brassavola</i> and <i>Cattleya</i> — to result in the man-made name of <i>Brassocattleya</i> . The name is capitalized, in Latin, italicized, and frequently abbreviated <i>Bc</i> .
Species	None	This is a hybrid that has several different species in its parentage, so no single one is listed. When an orchid hybrid comes from just one species, the species name will also be listed, lowercase, in italics, and in Latin.
Grex	Cynthia	All the resulting progeny from this cross are given a name that’s known as a <i>grex</i> . Think of this as you and all your siblings having a label. The grex is always written in a language other than Latin, is capitalized, and is not in italics.

Chapter 1: Getting the Lowdown on Orchids **17**

<i>Part of Name</i>	<i>Name</i>	<i>Comments</i>
Cultivar (cultivated variety)	'Pink Lady'	This is a selection from this grex that was deemed, in some way, superior to the other members of the progeny. This name is always in any language other than Latin, is capitalized, is not italicized, and is in single quotes. There are frequently several or more cultivars in a grex. Think of the cultivar as one of your parents' children. You're all labeled with a grex, but the cultivar is you in particular.
Award Designation	HCC/AOS	Highly Commended Certificate from the American Orchid Society. (See the nearby sidebar, "Why do I care that an orchid was awarded?" for more information on these designations.)

Orchid hybridizing can produce plants with quite complex names, especially in some of the very large groups like the cattleyas (see Chapter 11) and the oncidiums (see Chapter 13). In these chapters, I deal with their names in more detail.



You don't have to be an expert in orchid names in order to enjoy and grow orchids. You'll catch onto many other name nuances after you're drawn further into the orchid web. For now, don't worry about them much — they're only names!



Turn to the Cheat Sheet at the front of this book for a list of common genera names that you're likely to run into, along with their abbreviations and pronunciations. Tear out the Cheat Sheet and take it with you when you go shopping for orchids.

Growing Orchids Easy As One, Two, Three

To be successful in growing orchids, just follow these suggestions:

- ✓ **Know the environment you have to offer your orchids and match this with the orchids that fit.** See Chapter 5 for more information on your growing environment.
- ✓ **If necessary, modify your growing area to help your orchids perform to their best.** Check out Chapter 5 for information on how to do this.

18 Part I: Welcoming Orchids into Your Life

For the most common questions and problems, check out Part IV.

Beyond choosing the right orchid for your environment, you have to pay attention to the time of the year to know what your orchid needs. In the following sections, I give you a rundown of the year, month by month. **Note:** You can't be too exact with the timing of this care schedule, because the United States is a vast country with climates from the cold north country to semitropics.

January

This is a period of cold, short days and low light, so orchids don't grow much in such times. Fortunately, many moth orchids, slipper orchids, and some other cattleyas and their relatives will be budding up getting ready to show off their splendiferous blooms very soon.

- ✔ For orchids such as some of the dendrobiums, cattleya species, and deciduous orchids, like the catasetums, this is a time of rest, so you'll want to reduce your watering.
- ✔ Keep the humidity high with good air movement.
- ✔ If you are using well water, warm it up to room temperature before using it on your orchid plants. Ice-cold water can cause forming buds to drop and may stunt new growth.
- ✔ Don't put your orchids too close to the windowpanes or the leaves could be damaged by the cold.
- ✔ Apply very little fertilizer. The orchids won't need it.

February

This is another dark month, but the days will be getting longer and brighter, which should cause an increase in growth.

- ✔ Toward the end of this month, increased light may mean you have to be careful with your orchids that require less light, like the slippers and moth orchids, so they don't get burned.
- ✔ More of your orchids will be showing buds and some, especially some of the moth orchids and some of the oncidiums, should be blooming.
- ✔ Don't overcrowd your plants — make sure they receive as much light as possible.
- ✔ Provide good air circulation to prevent disease problems.
- ✔ Stake your cymbidiums, which should be spiking now.

Chapter 1: Getting the Lowdown on Orchids **19**

- ✔ Don't forget to keep your miltonias and miltoniopsis damp.
- ✔ If you're growing under lights, take note of when you last changed your bulbs. Fluorescent lamps can lose up to 40 percent of their light output after several months of use. Because new growth is starting on orchids, this is a good time to change the lamps so the plants will receive the most light possible.
- ✔ Apply very little fertilizer during this month.

March

Finally, signs of spring with longer and brighter days.

- ✔ Be careful that the increased light doesn't heat up too much in your greenhouse or windowsill. Apply shading if necessary.
- ✔ The increased light and warmth of this month will mean an acceleration of growth. Sprouting new roots should be more evident.
- ✔ This is the beginning of the show for many orchids. Many cattleyas, moth orchids, slipper orchids, and oncidiums will be starting to bloom.
- ✔ As the days get brighter and warmer, you can resume your regular fertilizing schedule.
- ✔ This month and next are prime times to check out orchid shows in your area.

April

In April, many orchids will be in glorious flower.

- ✔ You'll probably have to increase the frequency of your watering because of the new plant growth.
- ✔ As soon as you see new roots emerging in cattleyas, this is the time to repot. Do it before the roots grow a few inches (5 cm) long.
- ✔ Many other orchids showing new growth can also be repotted at this time.
- ✔ Be on the lookout for bugs. The warmer temperatures cause them to hatch out.
- ✔ Dormant orchids should be showing new growth now so you can resume your regular watering schedule.

20 Part I: Welcoming Orchids into Your Life

- ✔ If you didn't apply shading on your greenhouse last month, it may be needed now.
- ✔ A gauze curtain may be needed to soften the light for orchids growing in a south window.
- ✔ Check out orchid shows in your area.

May

Growth will continue at full speed this month. This is another prime month for orchid flowering.

- ✔ More frequent watering and fertilizing will be called for.
- ✔ If you're in a northern climate, move some plants to a shaded, protected spot outdoors by the end of this month, but be careful not to do this too quickly. Orchids that prefer it warm, like moth orchids, don't appreciate being too chilled at night, not below around 65°F (18°C).
- ✔ Increase your ventilation to remove excess hot air and prevent fungal disease spotting on the flowers.
- ✔ This is usually an opportune time to repot most of your slipper orchids because they should be in active growth now. Also, repot moth orchids and their vandaceous relatives. Attend to this right after they've flowered.
- ✔ Continue your fertilizing program to strengthen new growth.

June, July, and August

Temperatures are starting to heat up now. Some orchids, like a few of the summer blooming hybrid cattleyas, oncidiums, and slipper orchids, will be in flower.

- ✔ Be sure your windowsill or greenhouse doesn't get too hot. Consider moving the orchids you have in the south window to the east window, where they'll have reduced light and heat.
- ✔ For orchids growing under lights, make sure your growing area gets plenty of ventilation, because it could be getting very warm now under the lights. If you have trouble keeping the temperatures low enough, consider summering your orchids outside in a shaded and protected spot. They'll enjoy the vacation.
- ✔ This is also a prime time for insect problems. If it gets hot and dry, be on the lookout for mites. If it's wet, slugs and snails will be a plague. Aphids and scale can show up anytime. If you need to spray, do it in the morning when it is cool and be sure the orchids are well watered before you spray.

Chapter 1: Getting the Lowdown on Orchids 21

- ✔ The orchids should now be responding to your earlier repotting efforts with new root growth.
- ✔ Repot miltonias. **Remember:** They like to be pot-bound, so don't put them in too large of a pot.

September

Cool evenings and shorter days are signs of the change of season. Many of the hybrid vandas will be at their blooming peak this month. Buds will be showing up for the fall-blooming cattleyas, oncidiums, dendrobiums, angraecums, and moth orchids and slipper orchids.

- ✔ If you're in a cold climate, this is the month to bring indoors any plants that have been summering outside. Before doing this, check them closely for pests. If spraying is called for, doing so is much easier while the plants are outdoors.
- ✔ These cooler nights are very beneficial for setting flower buds and spikes.
- ✔ Start cutting back on the frequency of watering deciduous orchids like catasetums (which will have yellowing foliage at this time of year).
- ✔ This is the time to remove shade on the greenhouse in most parts of the country.
- ✔ Move orchids that require a lot of light from the east window back to the southern exposure.

October

Some cattleya species and their relatives and hybrids will be in bloom now. So will some moth orchid species and hybrids and oncidiums.

- ✔ As days continue to shorten and the angle of light gets lower in the sky, position the orchids in your windowsill and greenhouse so that they capture the most light.
- ✔ For greenhouses and windowsills, be sure your glass or glazing surface is clean. This can make a real difference in light transmission.
- ✔ Growth will start to slow on many orchids from lower temperatures and light, so reduce watering and fertilizing accordingly.
- ✔ Get ready for winter. Insulate your greenhouse. Get a standby emergency propane heater.

22 Part I: Welcoming Orchids into Your Life

November and December

Flowering spikes will be showing up on some moth orchids, slippers, and oncidiums. Some of the nobile-type dendrobiums will be starting to show buds. Low light, short days, and cold temperatures bring most orchid growth to a stop or at least a crawl. You'll see more growth on plants grown under lights than in a greenhouse or on a windowsill because of the additional light that can be provided.

- ✓ For cold parts of the country, November is the last month to safely purchase mail-order plants before it gets so cold that there will be a higher risk chance for freeze damage in transit. This a great time to visit orchid nurseries to pick out holiday presents for your orchid growing friends (or yourself!).
- ✓ Put orchids that require more light, like vandas, in a bright window, close to the lights, or high in the greenhouse to expose them to as much light as possible.
- ✓ Water in the early part of the day to ensure that there is no standing moisture on the leaves. In cold, damp weather, especially, such moisture can cause disease outbreaks.