

Oriental Hibiscus

One website on the internet says:

“Exotic hibiscus are vigorous growers that produce many huge and vividly colored flowers. It takes regular feeding to provide the building blocks for all this growth, color pigmentation, and strong enough wood to support the heavy flowers. There is a very limited amount of plant nutrition in a pot. There is often none at all in a potting mix made solely of peat moss, composted bark, coco coir, and perlite. The peat moss, composted bark, and coco coir are not sources of food for plants - they are simply there to secure the roots and to hold water and food for the roots to absorb. It is up to you to provide the food your plant needs.

What do Hibiscus Need?

Lots of Potassium:

Hibiscus have a voracious need for potassium - that is the third or last number in the formulas often given on fertilizer containers. Potassium assists in almost every part of plant growth and metabolism. Potassium assists in *photosynthesis*, the plant's process that uses sunlight and water to create sugars for food. These sugars are then used to build every part of the plant, and hibiscus, with their complex, colorful, huge flowers need more potassium than most plants to assist in these building processes. Potassium also draws water into every plant cell, keeping each cell plump, hydrated, and healthy, which in turn makes the plant lusher and prettier, as well as more resistant to drought and disease. Potassium, amazingly, is involved in almost every type of transport in a plant, moving food, nutrients, and chemicals all through every part of the plant. The strangest thing about potassium is that it isn't actually built into any part of the plant! It functions by floating as "*free ions*" through all the plant's systems, locking into this chemical or that chemical to make this process or that process work. When a plant undergoes stress, loses water, wilts, or looks sickly, these free potassium ions can be easily lost and it is up to us to replace them for our plants. So keeping enough potassium in our hibiscus, particularly during times of heavy blooming, can be challenging. Almost no commercial fertilizers contain enough potassium to keep hibiscus as healthy as we want them to be. At HVH we had to develop our own formula to get the potassium we needed for our own hibiscus, and over time, at the request of customers, we began to offer it for sale. This is our [HVH Special Blend Fertilizer](#) - the fertilizer we developed for use in our greenhouses.

Very Little Phosphorus:

Phosphorus is another important issue with hibiscus - hibiscus do not tolerate phosphorus well, and in high doses, it will slowly damage hibiscus plants over time. One of the most common mistake novice hibiscus-growers make is to use "Superbloom" or "Bloom Booster" fertilizers. These products contain extremely high proportions of phosphorus and are very damaging to hibiscus. We did a careful trial of phosphorus some years ago at HVH, in order to find out what the optimum levels of phosphorus would be for root and flower development. We intended to gradually increase phosphorus with each watering over a period of time, expecting to find improved blooming. Instead we watched the hibiscus go downhill within a couple of weeks of increasing phosphorus! It was shocking how quickly and how severely the phosphorus sickened our plants! As the trial continued, the hibiscus became stunted, their leaves yellowed, and they looked terrible! When we did further research on the effects of phosphorus, we found out that in several species of plants, phosphorus ties up other minerals and nutrients, such as iron, before the roots can absorb them. So our hibiscus were being slowly starved to death. No matter how many nutrients we put in their fertilizer, their roots were absorbing less and less of everything the plants needed. This was enough to convince us that hibiscus need to be protected from high amounts of phosphorus. Bottom line - don't use high phosphorus fertilizers claiming to be bloom enhancers! They may do something for some species of plants, but for hibiscus they are a disaster waiting to happen.

(Authors note: two other plants in my yard, split leaf philodendron and night blooming cestrum, have shown severe iron deficiency signs after the application of a moderate level phosphorus fertilizer, confirming this does occur with some plant species other than hibiscus)



Too much Phosphorus causes chlorotic, starving hibiscus plants that stop blooming.

Medium Amounts of Nitrogen:



Fertilizer Burn on Hibiscus Leaves

Too much Nitrogen turns the edges of the leaves brown

All living cells use nitrogen, and all plants need plenty of nitrogen. Plants use nitrogen in their proteins, enzymes, in chlorophyll, and in almost all of their metabolic processes. Too much nitrogen can "burn" leaves, the familiar "*fertilizer burn*" that turns the leaf edges dark brown. But too little nitrogen can bring plant growth to a halt. So the goal is to provide enough for optimum growth without overdoing it and burning the plant. For hibiscus, this means a middle-ranged

amount of nitrogen.

No matter what fertilizer you use, always keep an eye out for nitrogen fertilizer burn. If you see the telltale brown leaf edges, drop all fertilizer for a couple of weeks, and water with only plain water. When you begin to fertilize again, use a weaker fertilizer solution - for example, cut your fertilizer dosage in half. Keep watching for fertilizer burn, and cut back your fertilizer until you reach the point where you can fertilize on your regular schedule and not cause any burn in your plants.

How do I Know How Much Nitrogen, Phosphorus, and Potassium my Fertilizer Has?

In the United States, the big numbers on the labels of all fertilizers, called the *NPK numbers*, give the percentage of each of the three main macro-nutrients in this order: *Nitrogen (N) - Phosphorus (P) - Potassium (K)*. (These numbers measure different things in some other countries, so check your country's system before applying the numbers to your hibiscus care.) When looking for a fertilizer for hibiscus, look for this ratio: *Medium - Low - High*. If all three numbers are the same, as in most "*Superbloom*" formulas, there is too much phosphorus and too little potassium for hibiscus. The ratio we have found to be the best is the one we use in our [HVH Special Blend Fertilizer](#): 17-5-24. This is the fertilizer we developed for our own hibiscus, after much trial and error. You don't need this exact ratio, but you do need this pattern of *Medium Nitrogen (N) - Low Phosphorus (P) - High Potassium (K)*.



How to Read Fertilizer Numbers

If your fertilizer has less-than-optimum levels of potassium in it, you can supplement potassium with our [HVH Hibiscus Booster](#). The booster is intended to supplement your fertilizer with extra potassium and nitrogen, not replace it, since it is not a complete and balanced fertilizer, and has none of the trace minerals that hibiscus need. For example, if you are using the complete [HVH Special Blend Fertilizer](#) on a weekly basis, you may want to use the Hibiscus Booster once a month during the flowering season to give extra support to the flowering process. If you use our [HVH Timed-Release Fertilizer](#) with lower levels of potassium, you should use the Hibiscus Booster once a week (or higher doses once a month) to provide the higher levels of potassium that hibiscus need.

Check the Minor Elements

When you look for a fertilizer, also look at the "*minor elements*" in the formula. These are other minerals that hibiscus need in small amounts. Make sure you find a formula that includes at a minimum copper, magnesium, and iron in a soluble or chelated form. Ideally your fertilizer will contain several other trace minerals too. When it comes to fertilizer, you pay for what you get. You can buy cheaper fertilizers, but you will get a cheaper grade of each component of the fertilizer. Cheaper components may not dissolve well in water and may wash away without ever entering your plant. Or they can contain traces of harmful chemicals that can actually damage your plants. For example, some minerals are available in a *chloride* form for less money, and many less expensive fertilizers use these chloride forms. But repeated dosing with chlorines is very damaging to hibiscus, and the damage increases over time.

Read and Follow the Directions!

One more very important part of fertilizing is to very carefully follow the directions that come with any fertilizer. Hibiscus like to be fed small amounts often rather than large amounts occasionally, so the very best way to feed them is to use a half-dose of fertilizer every time you water. If you fertilize once a week, use the regular dose recommended on the fertilizer label. If you fertilize once a month or less, you can use a double-dose, but we don't recommend this, because hibiscus do best with steady and even water and fertilizer on a daily and weekly basis.

How to Fertilize

For hibiscus planted in the ground, it is easiest to hook up your water hose to a proportioner or fertilizer injector, so you can water and feed at the same time. Or, if you use a drip-type watering system, fertilizer injectors are inexpensive and easy to add to your system. If neither of these methods work for you, just mix your water and water soluble plant food in a container, then water each plant well. For potted hibiscus, be sure to pour enough of the solution into each pot so that some comes out the bottom of the pot.

It's much better for hibiscus to be fertilized when their soil is a bit moist. If the soil is too dry, the nitrogen in the fertilizer can burn the roots and damage the plants. Hibiscus don't like to ever dry out completely anyway, so if you have a good watering regime, you shouldn't ever have to worry about the soil being too dry to fertilize.

During the winter months when your hibiscus are not actively growing and blooming, cut your fertilizer way back. The less active hibiscus are, the less food they need. During the coldest two months of winter, you won't need to fertilize at all. As the days get longer



A good fertilizer program makes 'Living Legend' grow and bloom vigorously year after year.

and warm up towards the end of winter, start fertilizing about once every other week. Then begin your full fertilizing program as soon as the early spring warmth begins, and keep it up all through the fall blooming season, backing off slowly as winter approaches.

I Don't Have Time to Fertilize all the Time! Help!

If you are a very busy person, you may not be able to fertilize on a regular, frequent basis. For the "fertilizer challenged," a more permanent fertilizer such as the [HVH Timed-Release Fertilizer](#) will work too. These fertilizers are mixed into the soil once every 3-4 months, and release slowly over time. However, even the best of the timed-release fertilizers is too low in potassium for hibiscus. If you use one of these, even our own HVH timed-release formula, you will need to give your hibiscus an extra boost of potassium once or twice a month with a potassium product like our [HVH Hibiscus Booster](#). Our booster is pure potassium nitrate, and you will see the almost instantaneous effects of adding it to your hibiscus - more flowers, brighter colors, and over time, stronger wood and roots."

This is all from the excellent website
<http://www.hiddenvalleyhibiscus.com/care/feeding.htm>

Another website by Curt Sinclair says of oriental hibiscus:

"Healthy, fertilized plants are more tolerant of insect attacks. Be sure plants are well watered before applying chemicals. The best time to spray for insects is in the morning or evening (temperature under 80) and be sure to cover the undersides of leaves. For heavy or consistent infestations, spray every 5-7 days (4 applications) to break the life cycle. Add water soluble fertilizer and unscented liquid detergent soap to your mixture when spraying (*author's note, soap will tie up iron so use spreader/sticker from Ace Hardware instead*). Check for other host plants in the area that may be re-infesting your plants.

Orthene and soap will control most Hibiscus pests. The honey like secretion of several insects can attract a black 'sooty mold.' While unsightly, the mold does little damage and will disappear once you treat the cause. Newly bought nursery grown plants may need to be allowed to adjust to new conditions in your yard. Grown in partial shade and well fertilized, they need to be introduced to full sun over a 7-10 day period and kept well fertilized. Plant in at least 50% sun. Rotate insecticides for best results. Never use Malathion on Hibiscus. Strong dry winds can burn leaves but they will recover.

Caring for Hibiscus



1-APHIDS & ANTS Aphids (green, black or brown) are soft bodied sucking insects that can be controlled with liquid soap (1 tablespoon per gallon) or a high pressure hose.

Orthene and soap for infestations. Ants farm aphids for a honey like secretion they produce. No aphids, no ants. Use a strong water spray to the underside of leaves to dislodge and control most insects.

2-SPIDER MITES Most spider mites are too tiny to be seen without the aid of a magnifying glass. Their webs may or may not be noticeable. Leaves will develop weak looking pale to yellow splotches on the top while the undersides will develop pimple like bumps to scabby areas. Miticides or fine oils need to be applied several times (4) to break the life cycle.

3-MEALY BUGS Orthene and soap will usually control these soft bodied sucking insects. Mist with alcohol spray. It dissolves their protective waxy cover.

4-WHITE FLY Hibiscus dandruff. Orthene and Murphy's Oil soap will help control these deadly pests. They are on the underside of leaves and 4 applications may be needed.

5-SCALE These sucking insects are best treated in the Spring when they are young and moving about. The most common is the small white scale that starts at the base of the trunk and works up. Orthene and a fine oil; a weak solution of bleach and a tooth brush; or a light spraying with Pam or WD-40 will also work.

6-YELLOWING LEAVES This can be a sign of stress or even natural growth. Causes can be too much water or not enough water - too much fertilizer or not enough - or insect damage. Check for insects and reverse whatever else you are doing or not doing. *(author's note: yellowing of new leaves is common in hibiscus and is typically caused by Iron deficiency which needs to be remedied by foliar sprays of Iron and spreader sticker)*

7-BUD DROP This can be caused by stress but it is usually a small insect called a thrip. The thrip girdles the flower's calyx stem where it connects to the base stem. Orthene and soap will help control thrips.

8-FREEZE AND WIND DAMAGE Hibiscus are tropical plants and do not tolerate cold weather. Well watered and fertilized plants will fare better. Blankets, cardboard or a thick layer of mulch or straw will help. Do not spray to ice over the plants as this will kill them. Plastic, while better than nothing, is poor protection. Do not prune until Spring and prune into living tissue.

9-PRUNING Hibiscus can be pruned any time of the year except late fall and winter. New growth is more susceptible to freeze damage. Expect blooms on the new growth in about 3 months. Use sharp, clean and good quality pruning shears and cut just above (1/4 inch) an eye that is pointing in the direction you want the new growth to go.

10-CONTAINER GROWN PLANTS Use a loose soil (1/4 perlite) and do not let water stand in the saucer as they must drain well. Frequent use of water soluble fertilizer and light use of traditional granular fertilizer is best. When 'potting up' prune both the plant

and the roots to promote new balanced growth. If placed indoors, mist or use a humidifier and place in a sunny location.

11-SOIL AND FERTILIZER Loose well drained soil is preferred to prevent root rot. Fertilize lightly and often. Balanced fertilizer with trace elements such as 10-10-10 work well (*Author's note, the majority of the web references recommend a high potassium, low phosphorus fertilizer, contradicting this advice*). Foliar feeding with water soluble fertilizer (and soap) can be applied weekly (*Author's note, use a spreader sticker available at Ace Hardware rather than soap. Soap will tie up iron in the foliar fertilizer*). Keep mulch 2 inches from the trunk.

12-WINTER PROOFING Up North your hibiscus plants will need to be brought inside for the Winter. In the deeper south, like Florida, you may only have to cover your plants to protect them from a light frost. When Winter approaches, it is a good idea to use a fertilizer like 2-10-10 to harden up your hibiscus plants. (*Author's note, based on input from other websites 2-10-10 shouldn't be used on hibiscus*)”

From the excellent website <http://www.exotichibiscus.com>

At another location in the internet it says “Hibiscus plants are nutritionally weird” and do best with a “12-7-20 fertilizer”. Oriental hibiscus species have evolved in the relatively new volcanic soils of the islands of Polynesia and Hawaii. These soils have high levels of Potassium, low levels of Phosphorus and moderate levels of Nitrogen. Thus the peculiar nutritional needs of this plant. So the 17-5-24 and 12-7-20 fertilizer ratios are not surprising.

The closest locally available fertilizer to this 17-5-24 or 12-7-20 we could find is Diamond R Fertilizer's 12-4-12+4Mg Palm Fertilizer 50 lbs. \$22.75. It has Magnesium, Iron and Manganese in it which are needed for Hibiscus and the proportions are about as close as Diamond R can get to what the ideal is. Mixing the palm fertilizer with 16-00-26 STRX 50 lbs. \$18.85 from Diamond R at a 50:50 ratio would be about the perfect fertilizer, per the first write-up above. Note that nematodes are a constant threat to hibiscus and are controlled by using lots of organic mulch which rots into the soil around the plant. Pine bark is an especially effective mulch due to its acid make-up. Top dressing with composted cow manure is also very beneficial.

It is recommended to grow exotic hibiscus in containers. Hibiscus grow well in containers, solving the nematode problems. It is very important when repotting Hibiscus to be very careful of the root system. They don't like to have their roots, which are very fragile, disturbed any more than absolutely necessary.

Transplanting a plant already in the ground requires great care and some time. First prune 1/3 of the foliage from the plant. Then root trim to the size of root ball you want to transplant, the larger the root ball the better. Then leave the plant undisturbed for two to three weeks, watering generously. Then do the actual transplanting. This spreads the

transplanting shock out over two or three weeks and will give a much healthier plant in the end.

Supposedly hibiscus bloom better if root bound in pots but the ones at LaBelle's McDonalds bloom their heads off and they are just planted in the sandy soil. There is a beautiful double orange hibiscus that blooms its head off at the site of the new Dunkin Donuts (the old Wendy's) and the plant apparently has been unfertilized and uncared for many years just planted in LaBelle's sandy soil.

Some "exotic" highly bred hibiscus make for troublesome landscape plants for yards. I think the plants at McDonalds (and the site of the new Dunkin Donuts) are hardy "old yard" varieties of "non-exotic" hibiscus that have not been weakened by the extensive hybridization done to many of the newer varieties. "Exotic" highly bred hibiscus plants have not been selected well for their hardiness and resistance to disease and other factors. They have pretty much been selected solely for the size and beauty of the bloom, a serious weakness for many of the new exotic hybrids. In general, "old yard" varieties are those sold in home improvement stores while the exotics are those grown by breeders. Plants sold in home improvement stores will generally perform better as yard plants even if they don't have the large exotic flowers of the highly hybridized forms.

While old yard hibiscus plants like full sun, exotics usually don't. Exotics do best with a few hours of morning sun, or even filtered shade (fifty percent shade) because their roots like to stay cool. When container-grown, they like the pot-within-a-pot method, where an outer empty pot protects and cools the inner pot of the rooted plant. As a general rule, pink, white, and yellow hibiscus plants like more sun, while red, purple, and color-blended ones prefer more shade, although the red ones at McDonalds are doing just fine in full sun.

Note that if the new leaves are yellowish (chlorosis) this could indicate an alkaline soil (a common problem in LaBelle), which ties up Iron and makes it unavailable to the plant. A monthly foliar spray of one cup Iron Sulfate to one gallon of water with a few drops of spreader sticker (Ace Hardware has it) will generally solve the problem. Any iron, even chelated iron, applied to an alkaline soil will just be very rapidly tied up by the soil. Thus the need for a foliar spray. Be aware the iron spray will stain concrete and stucco a rust color. Epsom salts, a source of Magnesium, is also an excellent foliar spray and both iron sulfate and Epsom salts can be applied at the same time.

Don't buy grafted plants. The graft junction weakens with time and the plant doesn't thrive.

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