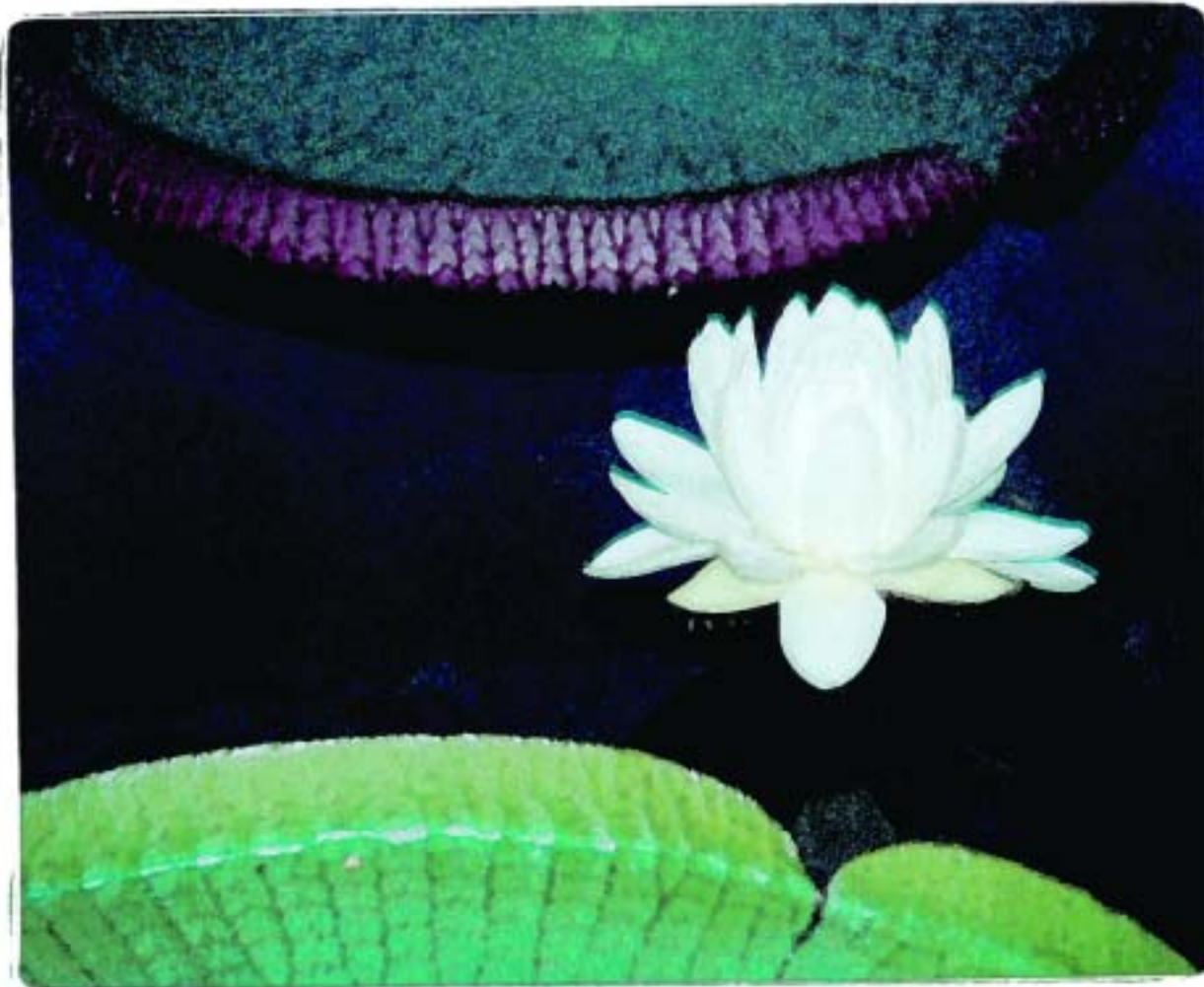


A GUIDE
TO
THE GERMINATION AND CULTIVATION
OF *Victoria Waterlilies*

*from the Victoria Conservancy, courtesy of IWGS
Photos by Nancy and Trey Styler, unless noted otherwise*



The first-night flower of *Victoria* 'Longwood Hybrid'



The two *Victoria* species, *V. amazonica* and *V. cruziana*, seen here in their native habitats. Photos by Butch Weaver

THE VICTORIA CONSERVANCY

The Victoria Conservancy is a group of *Victoria* growers and enthusiasts, operating as a committee of the International Waterlily and Water Gardening Society and dedicated to the conservation of the giant waterlilies of the genus *Victoria*. The *Victoria* Conservancy exists to develop, acquire, and propagate knowledge about *Victoria* and its horticulture, to preserve *Victoria* in all its variations, and to encourage the display of *Victoria* in order to interest and educate the public.



The underside of the *Victoria* pad shows its supporting structure, and its thorns.

INTRODUCTION

This is a long-overdue revision of our original germination guide, written in 1997. We have learned quite a lot in the meantime, and there is much yet to learn. The advice we proffer in this guide represents the combined observations and opinions of several *Victoria* growers, but it is just that – advice. We don't all do things the same way, and we will try to point out the differences. Also, few of us do things the same way now as we did a few years ago, and none of us know how we will do things a few years from

now. Consequently, this advice should be taken only as suggestions based on our knowledge to date, which is far from complete.

This guide was written by Nancy and Trey Styler of Colorado, with assistance and input from members of the Victoria Conservancy, notably Kit Knotts of Florida, Diana Anderson of Colorado, and Matt Johnson of upstate

New York, as well as Patrick Nutt and Tim Jennings from Longwood Gardens of Pennsylvania, Stan Skinger of Colorado, Rich Sacher of New Orleans, and Joe Summers of Missouri Botanical Gardens. In addition, it has been influenced by the experiences of many *Victoria* growers around the world who have shared their knowledge with us, personally and via the Internet.

We address here the needs of the two species of *Victoria*, *V. amazonica* and *V. cruziana*, as well as the two major hybrids *V.* 'Longwood Hybrid' (*V. cruziana*TM x *V. amazonica*) and *V.* 'Adventure' (*V. amazonica*TM x *V. cruziana*). Although all four types are similar in many respects, there are some differences, both physical and horticultural. For example, a mature *V. cruziana* typically tolerates cooler temperatures better, whereas *V. amazonica* requires warmer water to flourish. The hybrids are intermediate, with *V.* 'Longwood Hybrid' somewhat more like

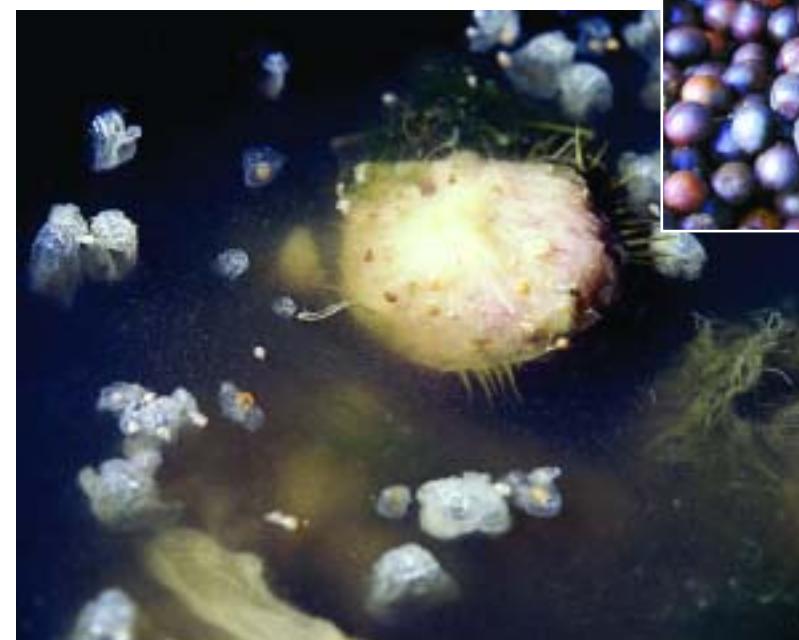
the *cruziana*, and *V.* 'Adventure' more like its mother, the *amazonica*. However, for purposes of germination and cultivation, we treat all varieties in the same manner, except where noted.

THE STORAGE OF SEEDS

When fresh from the pod, *Victoria* seeds are covered with a loose membrane called the aril. In the wild, this gives the seed temporary buoyancy and allows it to float away from the mother plant. This material and its gelatinous contents must be removed prior to storage, as they will decompose and foul the storage water.

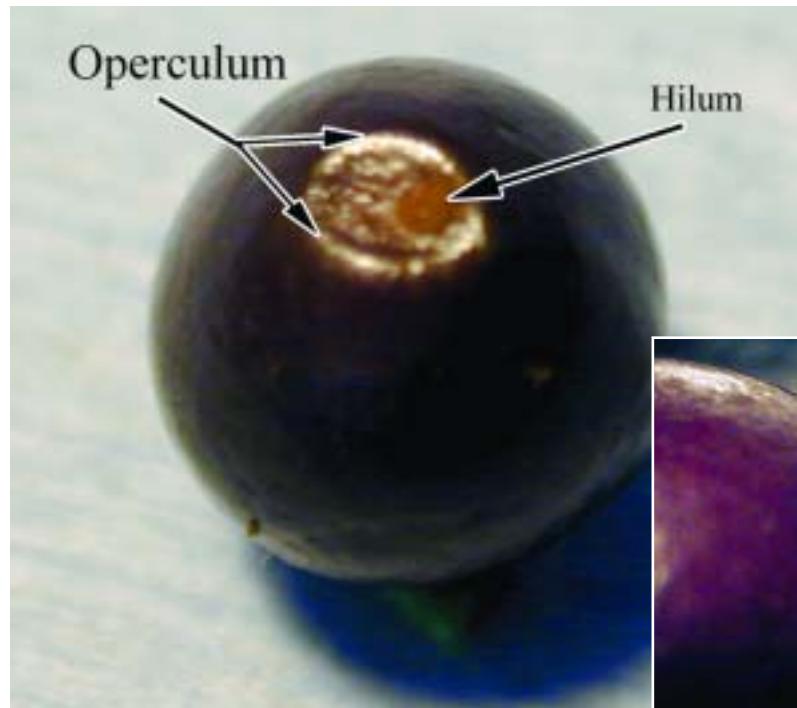


Victoria seeds come in many sizes and colors.



The *Victoria* seedpod ruptures and releases seeds covered with aril.

Victoria seeds must be kept moist at all times. For long-term storage, keep the seeds in water, in the dark, at a constant temperature. We used to recommend storage of all seed types at 50-60 °F (10-16 °C), but recent studies suggest that while *V.*



The operculum, or apical cap



The emerging embryo has pushed open the operculum

cruziana tolerates this range, these temperatures are too cold for seeds of *V. amazonica* and result in poor germination. We now recommend storing *V. amazonica* seed at 70-75 °F (21-24 °C) and storing the seed of *V. cruziana* at 60-65 °F (16-18 °C). The seeds of the hybrids may withstand cooler storage than the *V. amazonica*, but their tolerance is not known with certainty. Warmer temperatures are better for seed viability but at a risk of some premature germination in storage.

GERMINATING SEEDS

When to Sow

The correct time to sow seeds depends on your local climate. The entire cycle, from sowing to having plants ready to set outdoors, usually takes 3 to 4 months. Usually, the critical variable is when outdoor ponds will be ready to accept *Victoria* with stable water temperatures above 70-72 °F (21-22 °C) for *V. cruziana* and 78-82 °F (26-28° C) for *V. amazonica*. While

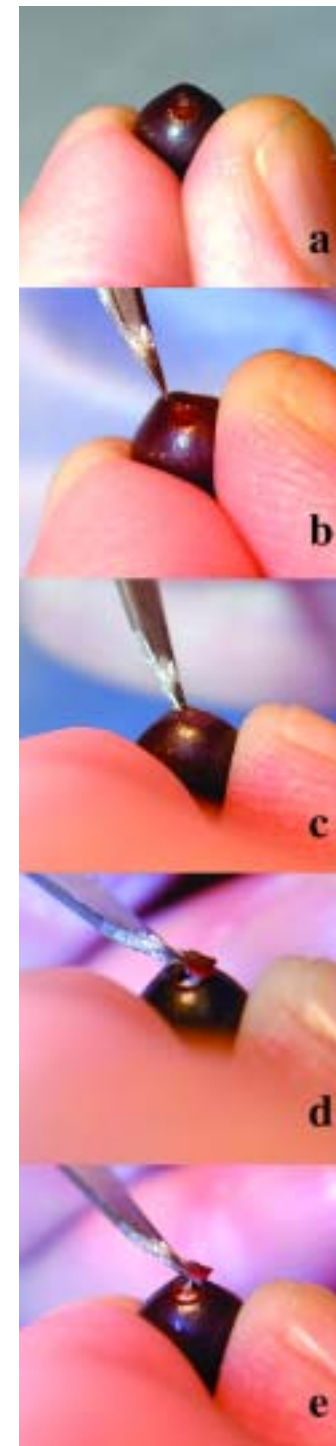
these are recommended, minimum temperatures, some growers report success in much cooler water. In southern areas of the USA, plants may be set out as soon as April or May. At Longwood Gardens, near Philadelphia, Pennsylvania, the *Victoria* pond water is heated to 82 °F (28° C) to allow setting out *Victoria* during the first week in June. Therefore, Longwood sows their seeds in late February or early March. Adjust your sowing dates according to your local conditions.

Seed Preparation

Victoria has a thick, dense, seed coat and can be difficult to germinate. There have been many different techniques used to germinate *Victoria* seeds since Paxton first accomplished this in 1849, and each has its own proponents and reports of success. Some growers have reported increased germination after scarifying or abrading the seed coat or after treating the seeds with a weak (1:10) bleach solution.

One type of seed preparation is called “nicking” the seed. To “nick” a seed, locate the operculum — the small, roughly circular area on the seed where it was attached to the pod. The operculum is the “door” through which the developing embryo emerges. Use a sharply pointed knife blade, such as a craft knife or a scalpel blade, to gently lift the operculum and expose the embryo beneath. Start “nicked” seeds immediately, as they seem more susceptible to rotting after “nicking”, disallowing storage.

Most varieties of *Victoria* seem to germinate adequately without “nicking”. Our studies indicate that this technique may speed up germination of seeds



Frames A-E show the process of removing the operculum (“nicking the seed”.)

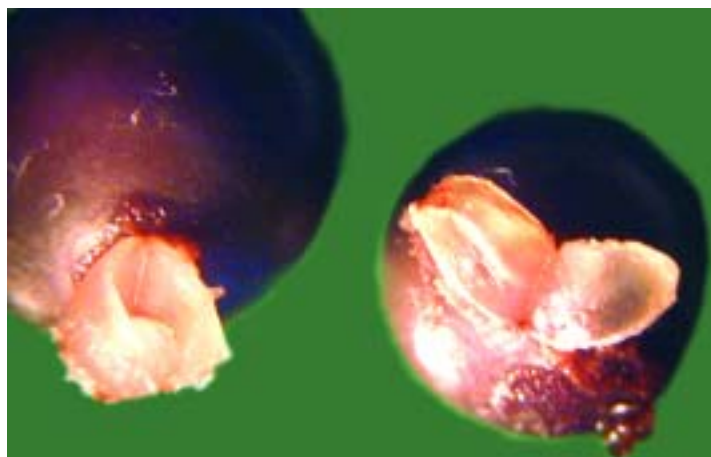
and may increase the overall germination rate in some *Victoria* seed types, such as *V. amazonica* and *V. ‘Adventure’*. However, it is also possible to damage the embryo in the nicking process. Even in experienced hands, 10-20% of nicked seed thought to be undamaged showed deformed embryos or leaves.

The different techniques of nicking, scarifying, or chemical treatment may act by weakening the operculum, thus promoting germination. Scarifying other parts of the seed coat is not effective and may promote rotting of the seed.

Victoria seedlings are susceptible to overgrowth by algae and/or fungi. Equipment used to germinate and grow *Victoria* (tanks, pots, etc.) should be washed and disinfected with bleach or an equivalent. Some growers, including Longwood Gardens, also dip their seeds in a dilute bleach solution (1:10 dilution of household bleach) for three minutes prior to sowing. This does not appear to improve germination rates, but it may improve the survival rate of seedlings.

Setup for Seed Germination

Seeds can be germinated in several different ways: in water without soil, or in sand or soil which is then covered with water. Most of us have adopted the method of germinating the seeds in water, without soil, and planting up only the seedlings that germinate. This allows for direct observation of the seed and keeps the water cleaner. However, many, including Longwood Gardens, prefer to plant the seeds in small pots of pasteurized (heat-treated) soil, which are then placed into a



Penetrating too deeply can damage the embryo.

tank of water to germinate. Both methods have been used with success.

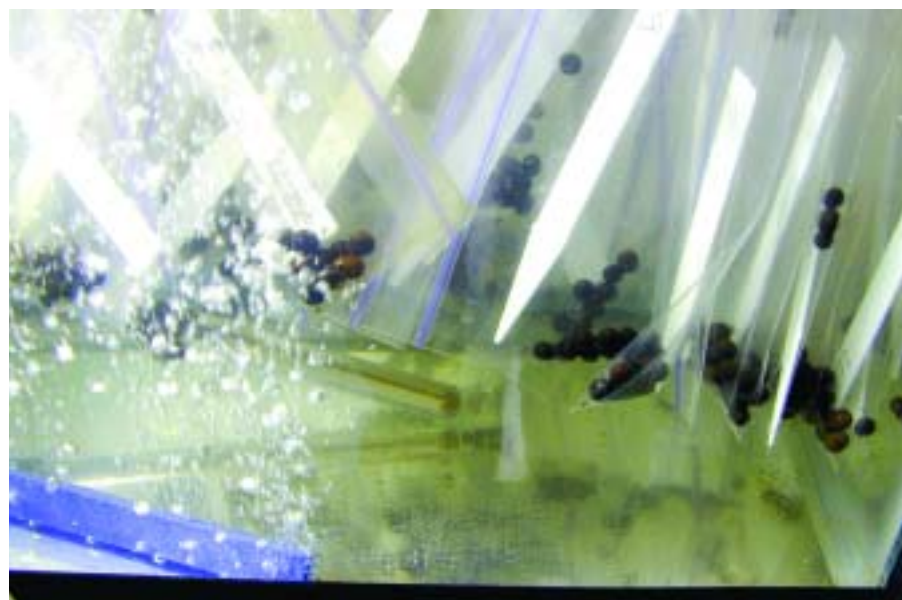
A glass aquarium of 10-gallon (40-liter) capacity is ideal for germination and early seedling growth. (Any similar, watertight container will do, but if the sides are opaque, arrange for adequate lighting.) A submersible, thermostatically controlled aquarium heater may be needed for heat. In some circumstances, a method to prevent overheating during the day may be necessary. Supplemental lighting will be required if the plants are not in direct or diffused sunlight at least 6-8 hours per day. An air-stone is often used to aerate and circulate the water in the aquarium.

Many questions have been raised about what type of water is best. For the seeds, during storage and prior to germination, it does not seem to be critical, but it may be more important for the growing seedlings. Sterile or distilled water is *not* necessary and may be a problem due to lack

of buffering capacity. While many growers use tap water, many others use established tanks or ponds containing other plants. Growing seedlings in an ecologically balanced environment may help protect against overgrowth of harmful algae or bacteria.

If tap water is used, or added, it is essential to treat for chlorine and/or chloramine that may have been added to your water supply, as well as heavy metals such as copper, as these may be toxic to *Victoria*. Various water treatments are commercially available to do this. Be sure your water treatment also neutralizes the heavy metals, as not all do.

Place the seeds into water that is maintained at 85-90 F (28-32 C). Although some germination can occur at lower temperatures, we have found germination and early development to be improved at the higher temperatures for all four types. If germinating in pots of soil, place them



Bags containing test lots of seeds in aquarium for germination.



This series shows the development of the filiform leaf.

into the aquarium with at least 2-4 inches (5-10 cm) of water over the top of the pot.

If sowing more than one type of *Victoria* seed, keep them separate. We place the seeds into labeled, small, plastic bags full of water, with or without small holes, and then into the aquarium.

TIMING

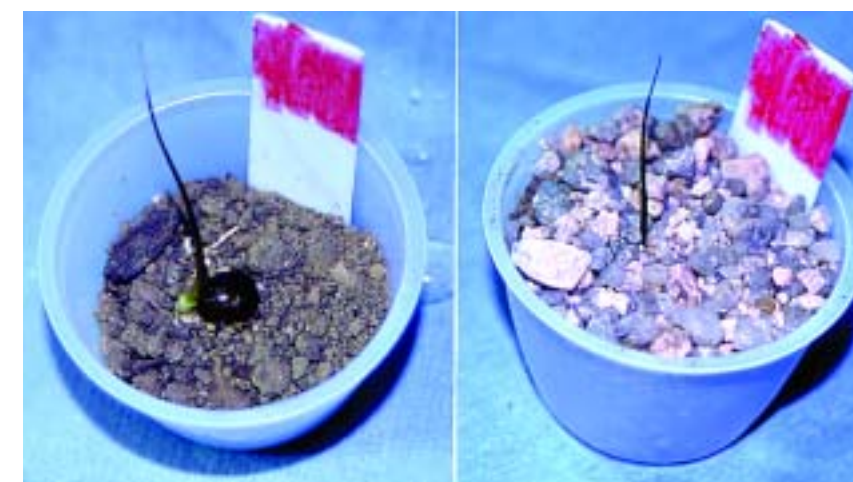
The length of time to germination is quite variable. The “average” time to germination in our recent study was 13.7 days, with a tendency of the species plants to germinate slightly later than the hybrids. Often, we have seen seeds germinate in as little as three days and in as much as 35 days. We have even had seeds germinate as late as 90 days after being placed in the aquarium, but this usually represents a “second wave” of germination in that lot. Not all seeds germinate the first time they are planted. Many seeds, if held over to the following year, at normal storage temperatures, will sprout the next year. (This is probably a survival mechanism in the wild.)

Germination rates vary considerably due to seed ripeness at harvest, storage conditions, germination techniques, and inherent

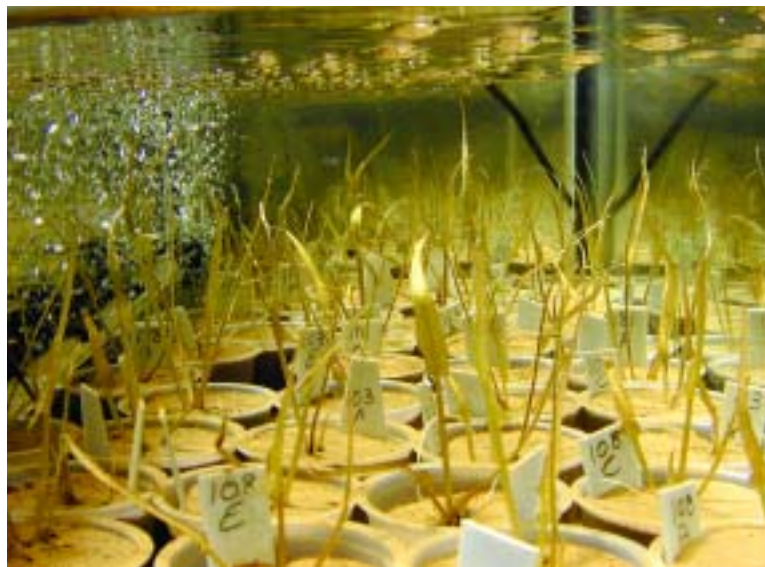
genetic variability. While the physical appearance of the seeds can also vary widely, we have not been able to predict fertility from appearance. Although some seed lots have shown very low fertility, the Conservancy makes every attempt to not distribute seeds with less than 50% germination in our annual studies. Some *Victoria* seed lots have yielded up to 100% germination in these studies, and we distribute the most fertile first. This helps offset any possible ill effect on the seeds from extremes encountered during shipping.

The Victoria Seedling

The first sign of germination is an open area appearing at one end of the seed (the open operculum), where a small, white bulge of firm tissue can be seen. This is the developing embryo.



Seedling planted into 1-oz. Cup, then covered with soil and pea gravel.



Seedling nursery showing filiform and hastate leaves.

The first leaf is long, narrow, light green and grass-like and is called the filiform leaf. It is followed by two leaves that are shaped like elongated arrowheads, the hastate leaves. The next leaves to follow grow to the surface of the water.

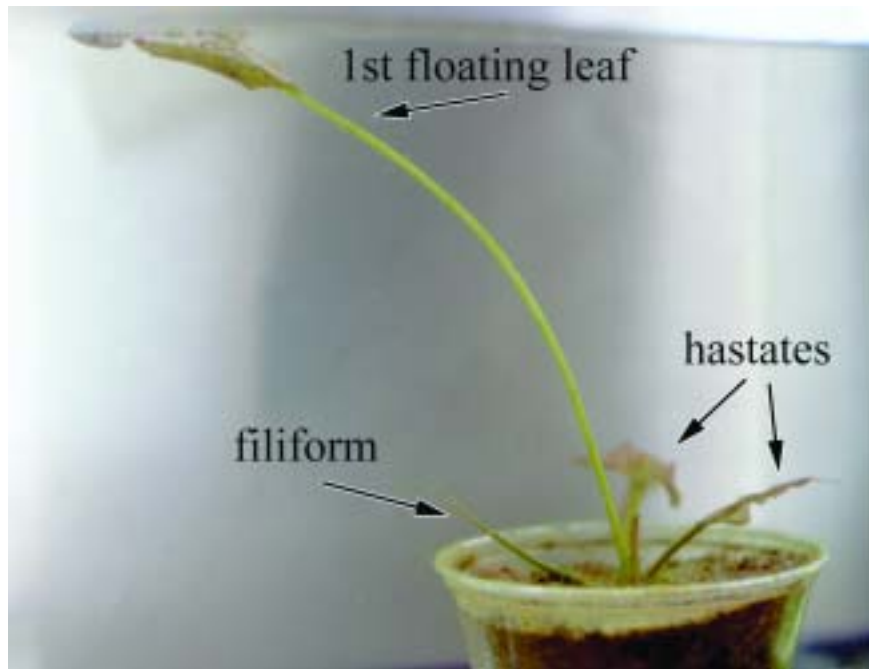
They are elongated, although subsequent leaves become rounder. *V. amazonica* retains a somewhat elongated shape while *V. cruziana* and the hybrids are more circular. Even at this point, small thorns are noticeable on the stems (petioles) and undersides of the pads. By the third or fourth pad, the underside of the leaf of *V. cruziana* is blue to bluish-purple (like concord grape juice), whereas *V. amazonica* is quite red (like cranberry juice), and the hybrids' are in the middle of that range.

Root development begins shortly after the first leaf appears, and it is usually quite evident



A mixture of plants creates a more stable ecology.





The first floating leaf reaches for the surface. Photo by Povy Kendal Atchison

into ecologically balanced larger tanks or pools. The young seedlings need a depth of 2-4 inches (5-10 cm) above the soil surface, although as they grow, they will need deeper water. Some growers use a nearly full aquarium or tank and raise the younger seedlings on supports at first, lowering them as the petioles or stems lengthen.

by the time the hastate leaves develop. Once roots are present, the seedling is ready to be potted into soil. Carefully isolate the seedling and its roots, still attached to the seed, and gently push it into the wet soil so that the roots are covered and the seed is at the soil surface, with leaves exposed. To prevent the seedling from detaching and floating free, some growers use small pins or wires to hold the seedling in place. A thin layer of pea gravel over the soil can help to stabilize the plant and reduce erosion of the soil. We start with very small, clear plastic cups (1 or 2 oz.) so that we can monitor root development.

These cups are placed in 82-85 °F (26-28 °C) water and in good light conditions. A greenhouse with diffused natural light would be ideal, but most growers have to use a combination of light from a bright window and supplemental artificial light, such as florescent or metal-halide grow lights. The seedlings can be returned to the aquarium to grow, but some growers have reported better results by placing the seedlings

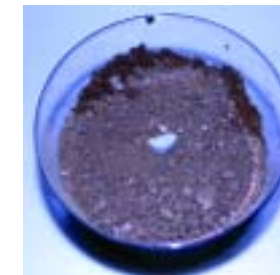
Victoria, like most aquatic plants, needs a soil that is fairly heavy and stable underwater, with little or no lightweight organic material that will float up out of the pot. The seedlings, especially, need a very bland medium, with no added fertilizers. People have reported success with clay-based soils, washed beach sand, and mixes of topsoil and sand.

Many growers feel that the soil used for germination or planting seedlings should be pasteurized to destroy harmful organisms without killing all of the beneficial organisms in the soil prior to use. This can be done with steam or dry heat, such as an oven, heating the soil to a temperature of about 140° F (60 °C) for 20-30 minutes. These numbers come from a joint study by Longwood Gardens and Pennsylvania State University. This technique, now widely used, reduces the chance of pathogens attacking the seedlings and causing “damping off”.

For germination, Longwood Gardens uses a soil mix that consists of about 20% clay, 40% sand, and 40% silt, which is steam-treated as



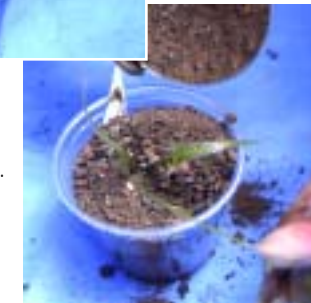
The seedling and its rootball.



The cup with 1/2 fertilizer tab.



Repotting the seedling.



above. While more mature plants can be potted in soil enriched with compost, manure, or fertilizer, the soil used for germination needs no additional fertilizer since the seeds provide their own nutrients. Besides feeding algae, excess fertilizer has been implicated in the loss of young seedlings. Fertilizer should be added only once the plants have reached the floating-leaf stage. Subsequent feeding of young plants should be handled with caution.

A Note About Seedlings

This stage of *Victoria* development, from the first floating leaf to the 3rd or 4th pad, is often considered the most difficult. Many growers have high rates of seedling loss. Sometimes an overgrowth of algae in the tank is thought to suffocate new leaves. Sometimes the seedlings just “melt away” for no apparent reason, although too much fertilizer is a possible cause. *It is not necessarily “your fault”!*

BEYOND THE SEEDLING

As the young *Victoria* grows, new leaves and roots will develop. It is very important to keep the plants growing steadily and not allow the *Victoria* seedlings to become pot-bound. Be sure to note the degree of root development and leaf size; every new leaf should grow larger than the one before. Consider that each new leaf puts out many new roots from the base of its stem. The roots from existing stems continue to grow as long as their leaves are healthy. This means that the roots from a new leaf must have room to become established for the plant



to grow well. Roots appearing above the soil line are a sign that the plant is ready to go into a larger pot.

When roots are visible in the seedling cup, we usually move next to a 9-oz. plastic cup, which allows us to see the developing roots easily. After that, we use standard pots, lined with newspaper or coffee filters to keep the soil inside. Shallow pots are adequate, as root development is mostly out, not down.

Typical steps in pot sizes are 4" to 8" to 14" (10, 20, 35 cm), although some growers prefer to take smaller steps more often, and some favor even fewer transplants and, therefore, larger steps. Although it is not

clear which is better, it is possible to go too far too fast. As the plant grows, it begins to need supplemental fertilizer, but this should be introduced slowly, in increasing amounts corresponding to pot and plant size increases. Moving to a large pot with higher fertilizer levels may burn or damage the young plants.

The young plants are fairly easy to handle and to transplant. They are small, and the thorns are not too bothersome. As they grow larger (and more dangerous), special techniques are sometimes needed. When we move the plants into larger containers, we use shallow pots with rounded bottoms, which we line with scraps of liner or heavy plastic. Then, when it is time to move them again, we grasp the liner, lift the plant out in its liner hammock and set it into



The 3rd and 4th leaves are rounder and starting to look like *Victoria* pads.

a depression in the soil of the next pot. We then slide the liner out from under the rootball, cover with soil and pea gravel, and the deed is done without touching the plant or being stabbed by its thorns. When moving larger plants, be sure to support the pads as well.

In young plants, new leaves develop slowly, requiring a week or more for each pad. In larger plants, new leaves come to the surface every two to four days, usually emerging still curled and puckered, then open up and expand on the surface. Larger pads will continue to expand for several days to a week or more.

The number of leaves on a plant is a good indicator of its health. Young plants should be able to carry 3 to 4 leaves at a time. Leaf color is another indication of health and vigor. Pallor of the leaves may indicate inadequate fertilization. There is a lot of variation in leaf color. The upper surface of *V. cruziana* pads tends to be a lighter green than *V. amazonica* or *V.*

'Longwood Hybrid'. These varieties tend to be darker and have strong overtones of red.

As the plant grows, it needs deeper water, at least 8-12 inches (20-30 cm) above the pot. It also seems to need increased light. Although it has been shown that *Victoria* can be grown and flowered in small containers under only artificial light, we have found that, when possible, the young plants seem do better with natural sunlight. As with other plants, beware of burning tender leaves with sudden exposure to strong sunlight.

Once the plant gets through the vulnerable seedling stage, its growth can become very rapid. Bigger pots and bigger leaves require bigger tanks, but in most climates the plant still needs protection and supplemental heat. We keep the water at 80-85° F (26-29 °C) for this stage and only reduce the temperature (to acclimatize the plant to lower water temperatures) for a few days before the final transplant.



A scrap of liner material under the soil will help with the next move.



New leaves uncurl and spread after they reach the surface of the water.

After the plants are in 4" or larger pots, provide enough room for the leaves to spread out. Almost any watertight container can be used for the plants as they grow. Everything from storage containers to plastic wading pools to stock

watering tanks (plastic or galvanized) has been used. Some growers keep their young plants in insulated, heated, and covered ponds. Others use heated tanks in greenhouses. Most have to improvise.

Moving Out to the Pond

Although some climates permit growers to germinate and raise seedlings in the same pond they will ultimately grow (as in the wild), most of us have to start indoors and move to the outdoor pond only when the weather permits.

The plants should not be set out until the spring weather has settled and adequate water temperatures are certain. It is true that *V.*



Even a five-foot tank can quickly become overcrowded.



Moving *Victoria* into its final growing container requires care and special techniques.

cruziana and *V.* 'Longwood Hybrid' can tolerate cooler water temperatures than *V. amazonica*, but even they seem to be set back if moved into cool water at this stage. We now feel that *V. cruziana* prefers water temperatures of at least 75-80°F (24-27°C), and that *V. amazonica* prefers water of 85-90°F (28-32°C). However, mature plants may continue to grow, and even flower, in water 5-10°F (3-5°C) cooler. The hybrids *V.* 'Adventure' and *V.* 'Longwood Hybrid' seem to tolerate cooler water, like the *V. cruziana*, but keep in mind, all *Victoria* are tropical lilies and appear to do better in warmer water than cooler.

To reduce shock to the plants, allow the water temperature in the controlled environment to approach that into which the young plants will be moved. Although the mature *Victoria* enjoys sunlight, as with any tender plant, *Victoria* leaves are subject to sunburn if quickly moved from a protected location into full sun.

The young plants can be moved to an outdoor pond at leaf sizes ranging from 8" or 10" up to twice that size. Typically, they will be in 10-14" (25-30 cm) pots at this time and be ready to repot into their ultimate containers.

The proper pot size for mature *Victoria* is a

subject of much debate. Display plants are often grown in very large pots of soil, ranging from 36" diameter by 12" deep to as large as 60" x 18". While it was once thought that these large sizes were essential, it has been shown that *Victoria* can grow successfully and flower in pots of less than 12" diameter! Of course, you are less likely to get the very large pads from the smaller pots. It seems that larger containers favor larger leaves, and smaller containers may encourage flowering.

This can be a tricky transplant, especially if the plant has big pads, or if you are using one of the larger containers. For us, this is a two-person job: one person lifts the current pot from the tank while the other person, wearing gloves, arranges the pads on top of the plant and each other by gently curling their stems. With the plant set on a plywood platform to gain a safe distance from the thorns, we carry the plant to the side of the pond where the next container awaits.

We have already prepared the next pot by filling it with our heavy soil (enhanced with generous amounts of fertilizer), leaving a hole in the center the size of the rootball. Since these larger pots can be quite heavy even when filled with dry soil, we fill them right at the side of the

pond. Some people, who use hole-less containers, float and fill the containers right in the water. We also have pea gravel readily accessible to cover the soil. The idea is to minimize the amount of time that the plant is out of the water, and its pads are dry. If you are delayed in the process, be sure to moisten the plant and pads frequently, or cover them with wet newspaper or burlap.

We then remove the plant from the old pot by lifting the liner hammock and place the rootball and liner into the prepared hole. We slide the liner out from underneath, cover the roots with soil, and then with gravel or rock to reduce the soil's erosion into the water, and slide the pot over the side of the pond and into the water. With the soil kept dry up to this point, even a full pot floats, although low in the water, allowing its movement along the surface to the desired position. By lowering one edge of the container, water is allowed to enter slowly, and we gradually lower the pot to its resting place

Victoria can grow in very shallow water, and sometimes it can be found growing in very deep water, but in cultivation it seems to prefer a water depth of 12-24" (30-60 cm) over the crown of the plant. When moving it into deeper water, try not to submerge all the pads. Although they will grow to the surface, their buoyancy may pull the plant out of the pot first! Some growers avert this by supporting the pot on blocks at first and then lowering the pot to the bottom later in the season.

Maintenance

The mature *Victoria* plant is a very heavy feeder and will require a great deal of supplemental fertilizer, especially during the peak of the season. We add a balanced fertilizer to the soil at the time of repotting and then supplement by adding aquatic fertilizer tablets weekly. For example, we give a mature plant in a 36" x 12" pot twelve tablets per week, pushed into the dirt around the outside of the pot like the hour markers of a clock. Some growers, concerned about excess fertilizer, especially in sandy soils,



Nancy uses the natural buoyancy of the pads to help her hold things as she removes older pads and flowers from *Victoria*.

use an "on-demand" feeding system that is based on the progression of pad size or on pad color. A yellowish pallor of the leaves may indicate over-fertilization. However, it should be understood that the "best technique", or exactly how much of what kind of fertilizers, is not known, and a wide variety of methods are used.

Aside from fertilizing, *Victoria* needs very little maintenance. Once a week or so, since each pad seems to last about three weeks from emergence to removal, we remove older, deteriorating pads and their stems. If you are not trying to produce seeds, remove spent flowers and their stems, as well.

Pad size will usually continue to increase with each new pad until maturity, around 4-5 months after germination. Once the plant begins to flower, pad size usually decreases somewhat.

The first flower on each plant is frequently abnormal in some respect, opening underwater or opening only partially or misshapen in some manner. Don't worry. Subsequent flowers will be more normal. Typically, once flowering begins, you will see a new flower every few days, alternating with new leaves in a ratio of one to three leaves for each flower. You may notice that new leaves and flowers emerge in a circular, spiraling pattern, some progressing clockwise and some counter-clockwise. We don't know why, but it is one more fascinating thing about this plant! Growth will continue as long as good conditions persist, but for most of us, fall and winter come all too soon.



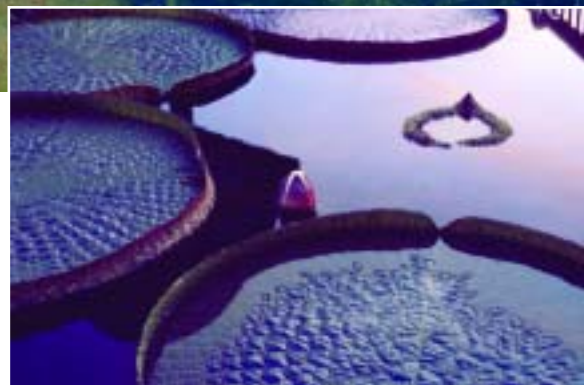
Denver Botanic Garden interns help move a large *Victoria*.



V. 'Longwood Hybrid' showing leaves and flower buds (under the water) at different stages of development.

PREDATORS AND PROBLEMS

One advantage of growing a plant outside of its native habitat is that you leave behind some or all of its predators. *Victoria* pads in the wild are often torn and perforated by wind, native animals, and insects, but in our alien and/artificial environments, this happens less often. On the other hand, *Victoria* has no resistance to our local pests, although size and thorns offer some general protection. Aphids can frequently infest the pads, but they can be washed off. Snails can be a problem for small plants but not usually for the larger ones. Some other aquatic insects can occasionally cause significant damage to a pad, but this is usually seasonal and self-limiting. This includes infestations of midges or the larvae of the China Mark Moth. Treatment with chemicals should be avoided unless absolutely



Victoria with an emerging pad in the sunset.

necessary, as the insects can be manually removed. Also, there are reports of *Victoria* pads being infected by the tobacco mosaic virus, brought in on tobacco by smoking and especially chewing tobacco, as has been well established in other plants.

Victoria does seem to be sensitive to chemicals, such as salt, heavy metals, or treatments used for algae or fish diseases. Copper sulfate has been known to badly burn *Victoria* pads, and even metallic copper, (as in pipes or heat exchangers) has been questioned. However, copper is most often damaging in the form of pennies thrown onto the pads, where they punc-

ture the pads or burn them with heat. In fact, any debris or foreign material that sits on the pad for even a few hours can blemish or discolor the pad.

Most fish are compatible with *Victoria*, including goldfish and *gambusia*, but some owners of prized Koi rightly worry about damage to the fish from the thorns. In at least one case, a Koi was stranded after it jumped up onto a pad and couldn't get off.

Conversely, *Victoria* seedlings can easily be uprooted or eaten by fish and should be protected until mature. Turtles, however, can be deadly even to mature plants, as their tough mouths can eat the thorny plant without any problem. Some growers have tried to "fence

off" their *Victoria* from the turtles, with mixed results. Crawfish can be a similar problem in some areas, especially for younger plants.

A LAST REQUEST

The Victoria Conservancy is dedicated to the preservation and scientific study of *Victoria* in all its forms. We are still learning, from our own experience and from yours. Please share your results, techniques and insights with us — the more information we can get, the better! ♡

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The *Victoria* at Missouri Botanic Garden make an awe-inspiring display. Photo by Joe Tomocik