## Venus Fly Trap

(Dioneae)

The Venus Fly Trap is native to the bogs of North and South Carolina. This highly evolved plant uses a mechanical action to catch its prey. The traps produces a reddish color inside the leaf, and secretes a scent that attracts insects. Inside the traps are trigger hairs. To close a trap, these trigger hairs need to be touched twice. This prevents the constant opening and closing that would occur during periods of rain. Once an insect is caught, the Venus Fly Trap will close tightly around its meal and begin digesting it.

## How to keep your Venus Fly Trap healthy

**Location:** Dioneae requires an area with as much humidity as possible. A terrarium is ideal. Select an area that has bright indirect light. Morning sun is usually OK, check for burning of foliage. Growing under Grow-Lux lamps is fine for 16 to 18 hours per day. Avoid humidity robbing drafts from heater and air conditioners. The ideal day temperature is between 65F to 80F degrees. Avoid excessive heat, especially at night!

**Watering:** Dioneae should not be allowed to dry out! For best results use distilled water or rain water. Tap water with low salt content is acceptable provided water is allowed to stand overnight, to remove the chlorine. It is very difficult to over water.

**Feeding:** Never feed any processed meats, including hamburger. Meats are too fatty. Venus fly traps require insects (which are low in cholesterol). Small flies, moths, are the most easily digested by the fly trap. Hard shell insects such as beetles are more difficult to digest and are not recommended. If you want to fertilize your fly trap instead of feeding it, use a 20-20-20, 1/4 strength once a month.

**Transplanting:** You can transplant your Venus Fly Trap with sphagnum moss, with a layer of perlite or gravel at the bottom of terrarium or pot. You should transplant every two years. It is best to transplant when the plant is dormant.

**Dormancy:** Fly Traps normally go dormant when the day length shortens and temperatures cool down to 40F-50F. It is recommend that you place your plant in a cool area away from direct sun in the winter months, so the Dioneae can go dormant. A spot in the refrigerator is fine, do not freeze! Your Venus Fly Trap will begin to start growing again in mid-February to early March.

**Additional Information:** A trap can only close three to four times before turning black. The speed in which the traps closes is based on temperature and light. Venus Fly Traps are an endangered species. We produce and sell only artificially propagated Dioneae plants. Fly traps flower in the spring producing one to eight flowers per stem.

## "Can I feed my Venus Fly trap hamburger meat?"

No! Their fast food preferences are common flies and insects. Hamburger meat is too fatty for a Venus Fly trap. It is best to feed them insects. None available? You can use general purpose fertilizer once a month at 1/4 strength.

#### Sweet Pitcher Plant

(Sarracenia)

Pitcher plants use a passive method in catching their prey. Their tube like leaves form pitchers that hold water and digestive fluids. The Sweet Pitcher Plant is the only Sarracenia that does not have a hood over the top of the pitcher. Sweet pitchers are native to bogs of the eastern United States and Southern Canada.



In the spring new leaves begin to grow, and out of the center of the plant an unusual flower will develop. As the leaves mature they will develop a striking vienation pattern, or become completely red or maroon color. This color, along with the attractant produced by the leaves, enables the pitcher to lure its prey. Insects arrive to "taste" the nectar, only to find themselves slipping to a liquidly death below. Now the weary insect has become dinner for our sweet pitcher plant.

## How to keep your Sweet Pitcher Plant healthy

**Location:** Humidity is a very important consideration when selecting a location. Lack of humidity will cause marginal burning of the leaves. A terrarium environment is best. Select an area that has bright indirect light. Morning sun is generally acceptable, but watch the inside temperature of the terrarium, so not to exceed 88F.

**Watering:** Pitcher plants should not be allowed completely dry out! For best results use distilled water or rain water. Tap water with low salt content is acceptable. This is a plant you cannot over water.

**Feeding:** Sweet Pitchers feed on ants, beetles, crickets, wasps, flies, moths and occasionally small toads. Feed with smaller insects weekly, larger insects every two weeks. Fertilizing with a 20-20-20 1/4 strength solution once a month is recommend where insects are in short supply.

**Transplanting:** You can transplant your Sarracenia with sphagnum moss, with a layer of perlite or gravel at the bottom of terrarium or pot. You can grow in peat moss and sand. You should transplant every two years. You can transplant any time of the year, but just before spring is the optimum time.

**Dormancy:** Sarracenia's need to go dormant in the winter months. Under normal lighting conditions, you will see leaves start to dry up in October /November. This is normal! Do not force your pitcher plant to grow. It will make new leaves in the spring.

How it works: The pitcher itself is broken down into five zones. The first zone is the attractive zone which contains the glands that produce the insect attractant. Around these glands, their are stiff hairs that point in a downward direction to send the insect towards the bottom of the pitcher. Zone two is a transitional zone. The third zone is where the walls inside the pitcher become very slippery with a special wax coating. Zone four, called the Detentive and Absorptive zone, is similar to zone three, but has hairs again pointing downward to prevent any escape and is partially in the liquid. The final zone (5) is completely filled with digestive enzymes and other bacterial to completely digest the insect.

## Tropical Pitcher Plant

(Nepenthes)

Nepenthes is a jungle vine found growing in the wild in Indonesia and Madagascar. There are approximately twenty species that still exist. Nepenthes are known for their flat leaves



tipped with tendrils that form a colorful pitcher at the end. In the wild the tendrils will wrap around a tree branch to prevent the pitcher from spilling its fluids. Tropical Pitcher plants can produce pitchers large enough to hold several quarts of fluid.

Nepenthes are either male, which produce the pollen, or female, which only produce only the pistil. Most nepenthes are produced through cuttings or tissue culture. All of our nepenthes are artificially propagated through tissue culture.

## How to keep your Tropical Pitcher Plant healthy

**Location:** Nepenthes require an area with as much humidity as possible. A terrarium is ideal. Select an area that has bright indirect light. Morning sun is usually OK, check for marginal burning caused by too much heat. Growing under Grow-Lux lamps is fine for 16 to 18 hours per day. The ideal temperature is between 60F and 85F.

**Watering:** Tropical Pitcher plants should not be allowed completely dry out! For best results use distilled water or rain water. Tap water with low salt content is acceptable provided water is allowed to stand overnight, to remove the chlorine.

**Feeding:** Nepenthes feed on all insects, tree frogs, and small rodents. Fertilizing with a 20-20-20 1/4 strength solution once a month is recommend where insects are in short supply.

**Transplanting:** You can transplant your Nepenthes with sphagnum moss, or a peat moss and sand mixture. You should transplant every two years, during any season.

## Butterwort

(Pinguicula)

The Butterwort is a carnivorous plant belonging to the *Lentibulariaceae* family. There are over 35 species of Pinguicula, of which nine are native to the United States. It's name, Pinguicula, is derived from the Latin word "pinguis" which means fat, referring to the "greasy" feel of the leaves. The Butterwort produces a glandular fluid on the leaves to attract, catch, and digest small insects. The leaves will slightly curl so that the fluid will pool around its victim.



During the 19th century, Butterworts were often used to control aphids in greenhouses before the advent of chemical controls. The butterwort generally starts flowering in the spring and early summer months. They produce yellow (P. lutea) or purple (P. vulgaris) flowers

### How to keep your Butterwort healthy

**Location:** A terrarium environment is best. Select an area that has bright indirect light. Morning sun is usually OK. Avoid humidity robbing drafts from heater and air conditioners. The ideal day temperature is between 65 to 85 degrees.

**Watering:** Butterworts should not be allowed completely dry out! For best results use distilled water or rain water. Tap water with low salt content is acceptable provided water is allowed to stand overnight, to remove the chlorine. It is very difficult to over water.

**Feeding:** Butterworts feed on aphids, and sphagnum nats, and other soft shelled insects. Look closely at the leaves and you will see the remains of insects that have been digested by the Butterwort. Fertilizing with a 20-20-20 1/4 strength solution once a month is recommend where insects are in short supply.

**Transplanting:** You can transplant your Pinguicula with sphagnum moss, with a layer of perlite or gravel at the bottom of terrarium or pot. You can grow in peat moss and sand. You should transplant every two years. You can transplant butterworts any time of the year.

# **Sundew** (Drosera)

Droseras are considered a semi active carnivore. Sundews have gooey tentacles that attract insects by red color and smell. Once an insect lands on the leaf, it begins it's fatal struggle. The tentacles begin to wrap around the victim and the Sundew produces more digestive fluid. More tentacles wrap around the bug, and the digestive process begins. Within hours the Sundew has ingested its catch, leaving only the skeletal remains. Sundews have one of the more powerful digestive systems in the carnivorous plant world.



As their name suggests, the Sundew is named because of the glistening dew drops at the end of their tentacles when exposed to sunlight. There are over 100 species of Drosera, in which nine are know to be native in the United States. Primarily growing in acidic bogs, and moist sandy areas. Sundew generally bloom in the spring, with small insignificant flowers only opening in the morning hours. They reproduce through seed and separation of the rhizome.

## How to keep your Sundew healthy

**Location:** Sundews make a great terrarium plant. Select an area that has bright indirect light. Morning sun is OK. Humidity is important to successfully growing a Sundew. Avoid humidity robbing drafts from heater and air conditioners. The ideal day temperature is between 45F to 85F degrees.

**Watering:** Droseras should not be allowed completely dry out! For best results use distilled water or rain water. Tap water with low salt content is acceptable provided water is allowed to stand overnight, to remove the chlorine. Sundews should not be allowed to sit in water.

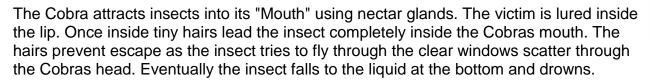
**Feeding:** Sundews feed on aphids, and sphagnum gnats, and other soft-shelled insects. Look closely at the leaves and you will see the remains of insects that have been digested by the Sundew. Fertilizing with a 20-20-20 1/4 strength solution once a month is recommend to maintain vigor of the plant.

**Transplanting:** You can transplant your Drosera with sphagnum moss, with a layer of perlite or gravel at the bottom of terrarium or pot. You can grow in sand. You should transplant every two years, during any season.

**Dormancy:** It is best that Sundews get a rest period at least once every two years in the winter months. If your Sundew's leaves start turning black in the fall, allow it to go dormant. Store in a cool 40F-45F degree place until late February.

# Cobra Lily (DarIngtonia Californica)

A carnivorous plant, DARLINGTONIA produces a pitcher that resembles the head of a Cobra.





## How to keep your Cobra Lily healthy

**Location:** DARLINGTONIA requires an area with as much humidity as possible. A terrarium is ideal. Select an area that has bright indirect light. Morning sun is usually OK, check for burning of foliage. Growing under Grow-Lux lamps is fine for 16 to 18 hours per day. Avoid humidity robbing drafts from heater and air conditioners. The ideal day temperature is between 65 to 80 degrees, and nights should not go below 40°F. Avoid heat, especially at night!

**Watering:** Cobras need to be kept moist at all times. For best results use distilled water or rain water. Tap water with low salt content is acceptable provided water is allowed to stand overnight, to remove the chlorine. It is very difficult to over water.

**Feeding:** None should be necessary. If you care to feed use freshly caught insects, every six weeks. Avoid processed meats.

**Transplanting:** You can transplant your DARLINGTONIA with sphagnum moss, with a layer of perlite or gravel at the bottom of terrarium or pot.

**Additional Information:** The Cobra Lily is native to a small area northern California and Oregon. It is closely related to the Pitcher Plant. They can grow to a maximum of three feet. They flower in the spring, and in the cool summer sun reddens the tops of the cobras head. Cobras produce "Clear cells", which create the little windows on the top of its head.