

CARNIVOROUS CREATIONS



*Planting, Care,
Variety, and
Garden Information*

CARNIVOROUS CREATIONS™

Grow your own collection of feared and famous meat eating plants! This deluxe edition has seeds from over ten kinds of carnivorous plants including: the Venus Fly Trap, Sundew Plant, Hooded Pitcher Plant, the Purple Pitcher Plant and many others! Watch these fascinating plants grow into bug-eating monsters!

Make your own authentic bog with the included peat planting mix, blue Swamp Rocks™, three fun Bog Buddies™ and full color decals! This rare and unusual collection of carnivorous plants will flourish for years in the specially designed terrarium with proper care.

Contents Included With Your Carnivorous Creations™

Planting Terrarium
Bag of Peat-Based Planting Mixture
Color Pack of Mixed Carnivorous Seed
Bag of Blue Swamp Rocks™
3 Colorful Bog Buddies™
3 Carnivorous Plant Close-up Color Decals
Instructions and Information Manual

How Do Carnivorous Plants Work?

Like all plants, carnivorous plants use the sun to produce energy through photosynthesis. However, these plants grow in peat bogs where there are no additional minerals and nutrients for the plants' growth in the soil. Over time, carnivorous plants thrived as they began to catch insects for food to get the much needed minerals and nutrients.

The plants attract insects to their traps by producing a sweet odor. When small insects touch tiny hairs of the plant, they set off triggers that cause the trap to close making escape impossible. Each type of carnivorous plant traps them in a different way. The famous Venus Fly Trap has jaw-like leaves that snap shut. The Hooded Pitcher Plant has downward facing spikes that prevent the insect from flying out. Some plants produce chemicals that dissolve the insect, and other plants depend on bacteria and other microorganisms to help them digest the insect. The insect becomes liquefied nutrients inside the plant, and the nutrients are absorbed and help the plant work and live.

How to Grow Your Carnivorous Plants From Seed

- Put the color carnivorous decals on the base of the terrarium. They are sized to fit the flat panels around the base.
- Massage the bag of planting mixture in order to remove any clumps that may have formed during shipping;
- Carefully empty the bag's contents into the base of the terrarium. Remove and dispose of any large clumps that remain, leaving only fine peat moss.
- Add 2 cups of distilled or rain water and mix with soil.
- Press and smooth soil gently so there are no clumps on the surface of the soil.
- Spread Swamp Rocks™ to create streams throughout your carnivorous bog.
- Place your Bog Buddies™ in the terrarium.
- **The seeds are extremely small. Use great care when handling them.** Fold a piece of paper once and carefully empty the packet's contents onto the paper. Tap the pack gently to release all the seeds of the envelope and collect them in the crease of the paper.
- Scatter the seeds directly onto the surface of the soil.
- **Place terrarium in the refrigerator and leave for 8 weeks before continuing the planting procedure. This is known as stratification.**
- Sprinkle 3/4 cup of water on top of the seeds.
- Place the lid on your terrarium. Line up the tabs on your dome and planting base so they form a "V" and snap dome onto planting base.
- Place in a warm, bright area that is not in direct sunlight; an eastern or southern exposure is best. A western exposure will provide too much light and a northern exposure will not provide enough warmth and light.
- Germination will take 3 to 6 weeks after you remove the terrarium from the refrigerator.
- If there is not enough condensation, cover the top ventilation holes with clear tape.

Caring For Your Carnivorous Plants

- It is best to water your carnivorous plants with rainwater or distilled water. If you must use tap water, leave it in an open container for a few days to allow the disinfecting agent to escape.
- Your carnivorous plants like to be kept wet. The included terrarium is the perfect environment for them.
- Your plants will flourish in the provided terrarium, with or without food. If you do not feed them flies, fertilize them in the spring when new growth begins to appear.
- It is good for the plants to remove the lid of the dome for a day every month or two to prevent the growth of fungus. Also, if your terrarium is left in the heat and sun for a period, remove the lid to prevent the build up of excessively high temperatures.
- The plants like to be kept cooler in the winter, 60 degrees, and warmer 75-80 degrees, in the summer.
- If you do not plan to use the seeds for a while, store them in the refrigerator, as opposed to a freezer.
- The biggest danger to your seedlings will be gray mold. It will look like a damp, gray fluff and typically strikes in cooler conditions. You can remove the mold or water the surface of the soil with a 1:50 mixture of hydrogen peroxide and water. If mold starts to appear, reduce the moisture and water the plants with a mixture of one capful of hydrogen peroxide to seven ounces of water. This will kill the mold but not the plant.
- If you choose to use artificial lighting for your carnivorous plants, a fluorescent or compact fluorescent bulb in the color range of 5000-6000 Kelvin. Using a shop light reflector, found at most hardware stores, is also very beneficial to increase the light for the plants. The plants color will be brought out by brighter lights.
- If you decide to transplant your carnivorous plants, it is important to use the correct soil. The planting mixture must not contain anything like compost or reed-sedge peat and must be primarily sphagnum peat moss. Following are two good recipes that you can make yourself:
 - pure sphagnum peat moss
 - 4 parts sphagnum peat moss, 2 parts fine Perlite, 1 part horticultural sand
- **Patience is very important when growing carnivorous plants from seed. They may sprout in as early as a couple of weeks, but some may take months.**

Over-wintering Your Carnivorous Plants

- Carnivorous plants are perennials and need a dormant period at least once a year. The plant will begin to die back naturally. This is normal. Simply remove the greenhouse top, remove dead foliage, and place in a refrigerator for two months. You can also place them in an unheated garage for two months if you live in an area with a cold winter. However, the plants cannot be allowed to freeze.
- It is okay to let your pitcher plants dry out more during this dormant period. Water every three weeks or so during the dormant period.
- After two months, water the plants, replace the lid, and place in a window with a southern or eastern exposure.

The Carnivorous Plants Included in the Deluxe Mixture

Venus Fly Trap (*Dionaea muscipula*)



- The Venus Fly Trap germinates easily. Usually the plants will germinate in three weeks to several months.
- These plants are native to the damp savannah areas of North and South Carolina.
- The Venus Fly Trap attracts small insects with a sweet odor.
- The leaves of a Venus Fly Trap are covered with fine hairs. When an insect lands on the plant, the pressure on these hairs causes the jaw-like foliage to snap closed, trapping the insect inside.

Cobra Plant (*Darlingtonia californica*)

- Germination will take 3-6 weeks, if there is still no germination, it may be necessary to stratify the seeds as discussed above.
- The Cobra Plant is native to Northern California and Oregon.
- The leaves of the Cobra Plant are long and shaped like tubes with a slight twist. The top of the tube folds over and becomes a large "hood." This part of the plant is translucent, which means that light can go through it.

- A large leaf that is shaped like a snake's tongue is located under the hood of a Cobra Plant (that's where the name came from!) There is a small opening where the hood meets the large tongue-like leaf. Trails of nectar lead insects up the leaf and through the opening and into the hood.
- Once inside the hood, the insect has a hard time locating the opening. The opening is camouflaged on the inside, and this makes it hard for the insects to find a way out. Also, the translucent property of the hood confuses the fly, and they think they can fly through the walls and ceiling.
- Eventually, the insect falls down the tubular portion of the leaf. The lower part of the tube contains spiky hairs facing down, which makes it impossible for flies to climb out. When a fly is at the bottom of a tube, water is released and the fly drowns. Bacteria and other microorganisms break down the fly.

Yellow Trumpet, Hooded Pitcher Plant, Sweet Trumpet, Purple Pitcher Plant, Pale Trumpet:



- Germination will take 3-6 weeks, if there is still no germination, it may be necessary to stratify the seeds as discussed above.
- These plants are all related, because they are in the same *family*. The *scientific name* of these plants tells you that these plants are in the same family. The scientific name of any plant (or any other living organism) is actually two Latin words. The first word is the family name. All of these plants are part of the same family, which Botanists call the *Sarracenia* family. A "family" in this context is like a category, consisting of many *species*. The species name is the second part of the scientific name. Each species is similar, but has unique characteristics that make it different from other plants in the family. This means that each species in the *Sarracenia* family are similar in many aspects, such as structure, but also have differences, such as color and size.
 - Most *Sarracenia* plants grow in the southern United States.
 - Plants in the *Sarracenia* family have long tube-like leaves.
 - The colorful veins lead crawling insects up the outside of the tube.
 - Insects are attracted to the nectar these plants produce. When they land on the tube-like leaves, the insects lose their traction (nectar is very slippery) and they fall, becoming trapped at the bottom. If they try to fly out, they actually create a vacuum in the narrow tubes, which forces them down even further.

Species of *Sarracenia* found in Carnivorous Creations™:

Yellow Trumpet (*Sarracenia flava*)

- The Yellow Trumpet produces large tall flowers and bright yellow leaves.
- This plant will grow 20 to 36 inches tall.
- The Yellow Trumpet's nectar has a chemical in it that produces paralysis when an insect consumes a large quantity.

Hooded Pitcher Plant (*Sarracenia minor*)

- Hooded Pitcher Plants are found between southeastern North Carolina and the Florida panhandle.
- They can reach heights between 35 and 50 cm.
- Hooded Pitcher Plants produce yellow flowers that bloom at the same time as the first leaves.
- The top of the tube has a canopy or a "hood" over it. When the insect falls under the shade of the hood, it is alarmed by the darkness, and moves deeper into the plant where it is more translucent.

Sweet Trumpet (*Sarracenia rubra*)

- Sweet Trumpet grows in North Florida
- The Sweet Trumpet has smaller and weaker tubes in the spring. The summer tubes are larger and stand tall, from 15-50 cm.
- Sweet Trumpet produces a sweet smell, like roses. It produces small red flowers in spring.

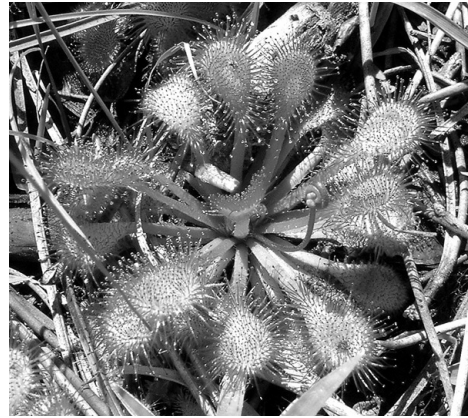
Purple Pitcher Plant (*Sarracenia purpurea*)

- The Purple Pitcher Plant is the most common carnivorous plant in North America. It can be found in the Florida panhandle all the way up to Canada!
- The plant can vary in color, from lime green to dark purple
- Purple Pitcher produces red/purple flowers.
- Rainwater collects at the bottom of the tube, and the insects that fall in drown.

Pale Trumpet (*Sarracenia alata*)

- Pale Trumpets can be found in Alabama, Mississippi and Texas.
- The tubes of the Pale Trumpet are green and upright, and can be as tall as 60 cm.
- The Pale Trumpet has yellow to creamy white flowers.

Sundew Plants (*Drosera intermedia*, *Drosera filiformis*, *Drosera rotundifolia*)



- Sundew Plants are found all over the world, in many different climates.
- Sundew Plants are all part of the *Drosera* family.
- Sundew Plants are covered with tiny hairs. The hairs shine in the sunlight, and insects mistake the liquid for nectar. However, the hairs do not contain nectar. At the end of each hair is a reddish gland that excretes a type of natural glue. When an insect lands on the plant, it is immediately stuck. As the insect struggles to free itself, it hits other glue-covered hairs, and resistance becomes even more futile. An insect may lose a leg or a wing in this struggle.
- Most insects caught by Sundew Plants are suffocated when they become covered in glue. Some larger insects do not, but one trapped leg is enough to cause the insect to die of starvation and exhaustion.
- The three species of Sundew Plants in Carnivorous Creations™ are all classified as Temperate Sundews. Species in this category are easy to grow in many different climates

Species of *Drosera* found in CARNIVOROUS CREATIONS

- *Drosera intermedia* is maroon with white flowers. This plant is found in eastern Canada, the United States and Europe, and a tropical version that does not go dormant is found in Florida, the West Indies and South America. This plant can reproduce by seed, or by cutting off an entire leaf and re-planting it.
- *Drosera filiformis* has long and thin leaves from six to ten inches tall. It has large pink flowers.
- *Drosera rotundifolia* produces white flowers. It is found in Europe, Asia and much of North America

CREDITS

Color photos used on box, instructions, deals, and seed pack courtesy of Carl Mazur.

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