

Plant Care Sheet

Dormancy: Winter Care



http://www.midtowncarnivores.com

The North American carnivorous plants that we offer (*Dionaea, Sarracenia*) obligately require a period of winter dormancy for long-term survival. These plants, if maintained under growing lights year-round, will slowly exhaust themselves to death during their

second year. However, dormancy care for your plants is not as difficult as it sounds, and here in New York City, there are several viable options, depending on your housing situation. Please read this sheet carefully and decide which scenario might be best for you.

INTRODUCTION TO DORMANCY

WHAT IS DORMANCY?: Dormancy is a period of minimal to zero growth during which the plant saves its resources until the warm weather of Spring, when the new growing season begins. Dormancy should be a minimum of six weeks during which time the average temperatures should be under 50 degrees, and the daylight period should be 9-10 hours long.

HOW DO I MAKE MY PLANT DORMANT?: **Outdoor** and indoor **windowsill** plants will enter dormancy on their own, cued by the decreasing daylight period and cooler temperatures as we move into the autumn.

Indoor plants grown under fluorescent lighting will need to be coaxed into dormancy, by either 1) moving the plant to a sunny windowsill at the end of summer until the end of autumn, or 2) by *gradually* decreasing the number of hours that the plants are under artificial lights each day for the weeks leading into the winter. The easiest way to do that is by placing the lights on a timer, and decreasing the amount of "on" time by half an hour each week until the daily light period is ~9-10 hours in late autumn.

IS MY PLANT DORMANT?: *Dionaea:* Venus Flytraps may put out new smaller leaves far more slowly than usual, and may stop altogether. *Sarracenia:* Plants in the *Sarracenia purpurea* group will stop producing new pitchers, but rather produce small "spikes" which do not continue to develop into full pitchers. Trumpet pitchers (*leucophylla*, *flava*, etc.) will also stop producing new leaves.

HOW DO I KEEP MY PLANT ALIVE DURING DORMANCY?: Here in New York City, the winters generally fall well below freezing, which is far too cold for most temperate plants to routinely endure (except for *S. purpurea ssp. purpurea*.) If left exposed over the winter, the potted plants may freeze, preventing the plant from taking in water, and subsequent winds will dehydrate your plant and kill it. The idea is minimize your plant's exposure to freezing conditions, and to protect your plants from wind exposure during the frozen periods. There are a few methods I'd recommend for New York metro area growers, depending on your situation.

WHAT DORMANCY METHOD IS RIGHT FOR ME?

	METHOD #1	METHOD #2	METHOD #3
Growing situation	A few plants grown on a sunny windowsill or under artificial lights.	A few/many plants grown outdoors, or indoors under artificial lights.	A few plants, but with no access to storage areas like a basement, attic or shed.
Dormancy will be	on my windowsill.	in a storage area (basement, attic, shed) or outdoors under a tarp.	in the refrigerator.
Requirements	A windowsill that experiences decreasing light and temperatures as we enter winter.	A storage area and tarp/weedcloth. Optional: sulfurbased fungicide and/or mulch.	A refrigerator, Ziploc bags, dried long-fiber sphagnum moss. Optional: sulfur-based fungicide.
Pros	No work required.	Least work for multiple plants, good control over conditions, no unpotting required.	Requires a little space in a refrigerator.
Cons	Least control over conditions, plants may come out of dormancy early due to artificial light/heat in indoor environment.	Requires a storage area, fungicide use recommended.	Requires bare-rooting your plant, use of long-fiber sphagnum moss, labor intensive, may lead to either fungal infection or desiccation of your plant if not done properly.

Method 1: Potted and not moved

This involves the least amount of handling, and may be useful to those in NYC apartments, co-ops and condos who grow their temperate plants on a windowsill. Its success or failure depends solely upon the conditions in which the plants are grown.

Basic requirements: Water, a windowsill that experiences colder temperatures in the winter.

Procedure: Leave your plant exactly where it is on its windowsill, and in mid-November, simply reduce the amount of watering to leave the soil wet, but not waterlogged. The light from the window, and the colder winter temperatures will cue to plant that it is dormancy season, and plant should do just fine where it is. Resume normal watering as Spring temperatures warm up and the daylight period increases.

Pros: Least hassle, least disturbance to the plant. Good method if you only have a one or two plants.

Cons: Plants may accidentally come out of dormancy due to artificial heat sources, or artificial lighting. Insufficient lighting with excessive water may cause root rot. Least control over conditions.

Method 2: Potted and moved

If you wish to leave your plant potted, and you have a shed, a tarp, a plastic tub, a basement, an attic and/or mulch, this might be the best method for you. This is the method I recommend for New York City growers who have limited space, but want the most control and the best chance of success.

Basic requirements: Water, a spray bottle, an isolated environment for storage.

Optional, but recommended: Sulfur-based fungicide ("Bonide" is a recommended brand), tarp (or weed cloth), pine mulch, scissors/pruning shears

Procedure:

- 1) In mid-November, if you top-water your plant, reduce the duration of watering so that the soil is wet, but not so wet that water runs out of the bottom of the pot. If you tray water your plant, remove the water tray and allow the soil to drain/dry enough over the next few days so that it's wet, but not dripping.
- 2) If your plant is a Sarracenia:
 - a. If your plant is a "trumpet" or "upright" *Sarracenia*, (e.g. *S. leucophylla*, *S. flava*, *S. rubra*) cut off ALL of the pitchers about ~1" above their bases.
 - b. If your plant is a "prostrate" or "recumbent" *Sarracenia* (e.g. *S. purpurea*, *S. rosea*), turn the pot upside down (while HOLDING THE SOIL IN PLACE) and drain all liquid out of the pitchers. If possible, rinse out the pitchers with water, to wash away any insect remains.
- 3) Spray the plant and surface of the pot with a sulfur-based fungicide solution.
- 4) Place the pots in your storage area using one of the following:
 - a. If you're using only a tarp outdoors, group your pots together into a small clump. Select a location that provides as minimal exposure as possible, i.e. having at least one wall/fence on one side of the pile is better than nothing. Cover the plants with the tarp. Secure the corners of the tarp with weights to prevent the tarp from blowing away.
 - Recommended: You may then cover the tarp with a layer of mulch as an insulating agent, and then cover that layer with a second tarp. The more mulch that is used, the more insulation it will have.
 - b. If in a shed, basement, or attic, you may place the pots in the dark shed, uncovered.
 - c. You may also choose a large, plastic storage tub with a cover. Place the pots in the tub, cover with a small tarp or weed cloth, add mulch to the top until the pots are essentially buried, and cover the tub.
 - i. The tub, as above, may also be placed in a shed, basement or attic.
- 5) If your plants are *not* under a pile of insulating mulch, check on them every 2 weeks in December-February, and one a week in March-April, to make sure that the soil does NOT dry out. (This is most important for uncovered plants in a basement or attic.) If your plants *are* under insulating mulch, check once a month. If it appears dry, add water to re-moisten the soil. (Liberal use of a spray bottle is recommended rather than pouring water.)

Optional: Spray again with sulfur-based fungicide. (Remember, the fungicide contains water as well.) Optional: re-cover the plants if necessary.

- a. During dormancy, you may find white, fuzzy fungus on the outside of some of your plants. If it appears on the surface of dead leaves/growth, cut those leaves/growth off, but AVOID cutting into live, green tissue if at all possible.
- b. Likewise, if you're growing a recumbent pitcher species (*S. purpurea*, *S. rosea*), you may find that white, fuzzy fungus is growing on the inside of some of your pitchers. If the pitcher leaf is green/purple/alive, leave it alone; the fungus is just munching on some remnants that weren't fully washed out of the pitchers. If the leaf is brown, cut off as much of the leaf as you can without harming live tissue.
- 6) In mid-April or early May, when the temperatures begin to warm to above 55 degrees, take the pot out of storage, cut off any brown, dead leaves, and rinse off/out any remaining white, fuzzy fungus. Spray the plant/soil with fungicide one last time, leave the pot exposed to outdoor air flow overnight.
- 7) The next day, resume top-watering/tray-watering. Expect growth to resume in earnest as we enter Spring.

Pros: Great if you own several/many plants. Reliable method.

Cons: If the soil is too wet, the plants may rot. If the soil is too dry, the plants may desiccate. Takes up a fair amount of space. Potential use of fungicide.



Method 3: Unpotted in the refrigerator

This is a slightly more drastic method, and is a bit riskier, but a good alternative for those living in NYC apartments, co-ops or condos who may not have access to a basement, attic or outdoor shed.

Basic requirements: water, Ziploc bag, long-fiber sphagnum moss, a refrigerator

Optional, but recommended: sulfur-based fungicide ("Bonide" is recommended brand.)

Procedure:

- 1) In mid-November, if you top-water your plant, reduce the duration of watering so that the soil is wet, but not so wet that water runs out of the bottom of the pot. If you tray water your plant, remove the water tray and allow the soil to drain/dry enough over the next few days so that it's wet, but not dripping.
- 2) If your plant is...
 - a. If you plant is a *Dionaea*, cut off all of the blackened leaves which should have already withered up.
 - b. If your plant is a "trumpet" or "upright" Sarracenia, (e.g. S. leucophylla, S. flava, S. rubra) cut off all ALL of the pitchers about ~1" above their bases.
 - c. If your plant is a "prostrate" or "recumbent" *Sarracenia* (e.g. *S. purpurea*, *S. rosea*), turn the pot upside down (while HOLDING THE SOIL IN PLACE) and drain all liquid out of the pitchers. If possible, rinse out the pitchers with water, to wash away any insect remains.
- 3) Hold the pot on its side, and gently squeeze and release the pot to loosen the soil. Keep the pot on its side. Lifting by the base of the plant, gently pull the plant and its soil out of the pot. (The plant and soil mass should slide out of the pot as one mass. If it feels like you're pulling the plant out of the soil, STOP. You don't want to damage the plant. Squeeze and release the pot a few more times to loosen the soil and try again.)
- 4) Gently loosen as much of the remaining soil off of the roots as you are able. (Gently agitating the plant's roots in a bowl of distilled water helps to loosen the soil.) Now your plant is "bare-root." Place the plant aside for now.
- 5) Take a small handful of dried long-fiber sphagnum moss and wet it with distilled water. Then squeeze out the wet moss clump until the clump is moist, but not wet. Place the clump on a flat surface and spread out the moss pieces until they form a layer. Recommended: spray a small amount of sulfur-based fungicide onto the layer, but not so much that the moss becomes dripping wet.
- 6) Take the plant and gently put it down such that the base of the plant and its roots are on top of the moss layer. Recommended: spray a small amount of sulfur-based fungicide onto the whole plant, but not so much that the moss becomes pooled in liquid.
- 7) Take a second handful of dried long-fiber sphagnum moss and wet it with distilled water. Then squeeze out the wet moss clump until the clump is moist, but not wet. Gently spread out the moss pieces over the plant's roots and base.
 - a. Basically, you're making a "moss-plant-moss" sandwich. The goal is to wrap the base of the plant and its roots in dampened long-fiber sphagnum moss.

- 8) Gently take the plant, with the moss wrapped around its base and roots, and place it into a Ziploc bag. Seal the bag.
- 9) Using a black marker, label the outside of the bag with the type of plant that's within. Place the bag in the refrigerator, specifically in the vegetable crisper to prevent accidental freezing.
- 10) In mid-April or early May, when the temperatures begun to warm to above 55 degrees, take the plant out of storage, cut off any brown, dead leaves, and rinse off/out any white, fuzzy fungus. Report the plant appropriate media and place the plant in its normal growing location. Resume top-watering/tray-watering. Expect growth to resume in earnest as we enter Spring.

Pros: Useful if space is limited.

Cons: Fungus may become an issue. If the moss is too wet, the plants may rot. If the moss is too dry, the plants will desiccate. Labor-intensive method. Expensive, i.e. uses a lot of long-fiber sphagnum moss.

So, that's a quick summary of a few options on dormancy. There are any number of variations on the techniques listed above, and I do encourage readers to check the Internet for additional suggestions, or to email or call with questions. Carnivorous plants can undergo perfectly satisfactory dormancy periods here in New York City with a bit of preparation and care.

Please note that is the first edition of this guide. Future iterations will have additional pictures. For questions, comments and/or suggestions, please send us an email and let us know your thoughts, both good and bad. ©

Good growing to you!

VERSION: OCT 11, 2013

For any questions, please contact us at any time:



We also recommend the following from the <u>SEEDS AND SUPPLIES</u> section of our online store:

DRIED LONG-FIBER SPHAGNUM MOSS