

**Just a reminder that our meeting is this coming Saturday, October 13<sup>th</sup>, at 1 PM in the Conference Center at Toledo Botanical Garden.** Our speaker will be Doug Conley, former Horticultural Services Supervisor at Toledo Botanical Garden, now the Lead Gardener at the University of Michigan's Matthaei Botanical Garden and Nichols Arboretum. (<https://mbgna.umich.edu/>). Doug's presentation is titled "BEAUTY BY DESIGN: THE FORD HOUSE COLLABORATION". Come and learn how Edsel and Eleanor Ford collaborated with Jens Jensen (Landscape Architect) and Albert Kahn (Architect) to design their family home. Particular emphasis is on how Jensen designed the landscape for different experiences.

Officers that we will be voting on at this meeting are terms of President, Vice-President and one Directorship. Our by-laws describe the offices as follows:

The elected and appointed officers below shall perform the duties prescribed by these by-laws and by the parliamentary authority adopted by this Society.

**PRESIDENT.** The President shall preside at all meetings, shall appoint the chairpersons of necessary committees, and assign appropriate tasks.

(Simple! YOU can do it! I'm not going anywhere soon, so if questions arise during your term, I can walk you through.)

**VICE-PRESIDENT.** The Vice President shall develop programs for each meeting as required, and in the absence of the President, shall fulfill such duties as are required. Fill in for President at required meetings when necessary. Attend the annual budget meeting.

Attend regular society meetings. Find speakers for our general membership meetings. Participate in special meetings.

**DIRECTORS.** The Directors shall assist the other officers in managing the affairs of the Society.

Serve on a committee and/or participate in one of the society's event each year.

Attend the annual budget meeting.

Attend regular society meetings.

Participate in special meetings.

Karen Centers, who has been a director since 2013, is stepping down since she will be spending a lot of time in Indiana babysitting her 7 month old grandson this coming year and will not be able to participate in our activities as she would like to do.

And don't forget to bring your tissue culture plant H. "Coast to Coast" and your journal to our meeting if you did not bring your plant back yet this fall. Be sure to put your name on your pot. Remember, you need to bring your H. "Coast to Coast" back to be eligible to participate in the tissue culture program next year. If you are unable to come yourself, have a friend bring your hosta and journal back for you. Any questions about the tissue culture program, contact Phil Parsons at 419-256-7246.

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Congratulations to Charlie Harper for being named to the 2018 President's Wall of Honor of the American Hosta Society. This honor is to thank members of the local societies for have worked tirelessly for years to ensure the smooth running of their local clubs. In addition to receiving a certificate, names are inscribed on the President's Wall of Honor on the American Hosta Society's website.

Charlie joined in 2004 after hearing about our society through the Wood County Master Gardeners program. He is finishing his second term as Vice-President, and he also served as a director for two years. Charlie's garden was on our Members' Garden Tour in 2005, 2010, 2012, and 2018. Last year he updated our Black Swamp logo, and worked with Jackie Bachman to secure logo shirts for members. Charlie pushed to get FACEBOOK and a website established, and he continues to provide postings and photos for them. He is our daylily guru – knows all the important people in the daylily world!

BSHDS members who are past winners on the President's Wall of Honor include:

2012: Jim Baumann and Joyce Lane

2013: Jim Flannery and Charlene Patz

2014: Phil Parsons and Jim Boldt

2015: Harold Hoffman and Frank Patz

2016: Don Bixler and Kevin Kwiatkowski

2017: Linda Scheuerman and Vicki Dillon

2018: Charlie Harper – Other winner to be named when present at a meeting

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Congratulations to Charlie Harper, who won Second Place in the Multi-Bloom category of the American Hemerocallis Society's 2018 Photography Awards for his photo of "Cobraskin Necktie" (Hanson-C, 2005)!!! Great job, Charlie!!

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On November 10th we will have our Year-End Potluck, beginning at NOON at the Conference Center of Toledo Botanical Garden. The society will furnish the meat, drinks, and table service, and our members will bring a side dish or dessert to share. Dianna and Arnie Vasquez have volunteered to chair the potluck committee again this year. Will just be lunch and a time to reflect on the past year with your gardening friends! No meeting or program.

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*This article has appeared in other societies' newsletters. It is published here through the AHS Newsletter Exchange.*

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Hostas are amazingly resilient hardy perennials, but as many know their foliage can still succumb to occasional poorly timed frosts. The damage can leave them unsightly and vulnerable to disease. Symptoms from late spring or early fall frosts are similar. Most hostas are less susceptible to frosts in fall than in spring, and it is easier to protect against early fall frosts. There are several steps we can take to protect hosta plants from frost.

Unlike some tender annuals, hostas can take up to a few days to show symptoms from frost damage, but evidence may also start appearing the night of the frost. The first sign might be stiff, darkened, almost brittle leaves. Indications the following morning can be more extreme. Once thawed you may see limp clumps with very dark, crinkled, frozen-lettuce-like leaves. Expanded but still tightly rolled foliage is more resistant to frost than foliage that is completely unfurled. The tight buds that emerge early in the spring may still be able to withstand temperatures of much less than 32 °F (0 °C). Because of the tolerance of hosta leaves, light frosts may not be noticed for a week or more, but could appear as burned leaf margins, leaf tips, or just the higher portion of unfurled leaves. Frost could affect just the surface of a leaf without penetrating to the lower cells. They may show small yellow droplet-sized spots from water freezing on leaves, or just cold water sitting on foliage. In these minor cases the symptoms will manifest as darkened

tissue, eventually becoming lighter yellow followed by brown and dried. Understanding what occurs to the leaf is helpful in knowing what to do about it. As temperatures drop below freezing, water inside the plant cells begins to crystallize and expand. These water crystals are sharp, and the added pressure can rupture the cell membrane and wall. Once this perimeter barrier becomes perforated cell moisture leaks out and the cell dies from dehydration.

The trick to avoiding damage is to prevent cellular water from freezing. Since water with a higher salt concentration freezes at a lower temperature, it's an advantage to establish plants with sufficient cellular moisture. The plant can move water around from the interior of the cells to the exterior, and in so doing protect the cells from desiccation burning or rupturing.

Nutrition is also critical. Although excess nitrogen creates plants with soft growth that is more susceptible to frost, higher concentrations of potassium and phosphorus have proven to be an advantage in frost and winter tolerance. Potassium is also needed to control cell moisture and build strong cell walls. Healthy established plants can tolerate temperatures of 28 °F (-2 °C) for short periods of time. Longer periods of several hours at the same temperature injure leaves.

Steps to prepare plants for frost damage:

Prevent damage by selecting less susceptible hostas. Some early emerging hostas varieties are notoriously prone to late spring frost damage, i.e., 'Lancifolia', *montana* 'Aureomarginata' and 'Sagae'. Many gardeners have also noted that plants with lighter colored foliage are more susceptible to frost.

Select protective garden locations. Do not plant in low garden elevations that collect cold air. Areas where the soil may warm up faster and hostas may emerge earlier such as an open, south facing hillside are more likely to be hit by late spring freezes. Locate susceptible early-emerging hostas in micro-environments that do not get direct sunshine in the early spring. This will prevent the sun from warming the soil, thus slowing emergence and unfurling of foliage until air temperatures can be more easily maintained above the freezing point. If direct shade like that of a building is not possible, loose mulch spread liberally around the area will have about the same effect. The mulch can be removed once the leaves are poking through it.

Hostas in above ground containers tend to emerge earlier since the soil in the pot will warm up earlier with air temperatures. Keep plants mulched in early spring whether in pots or directly in the ground. Pots submerged in soil or mulch are less prone to the earlier warming.

Keep the plant well fertilized with phosphorus (the second number in a fertilizer sequence) and especially potassium (the last number). Do not use excessive nitrogen fertilizer later in the season; in most gardening regions fertilizers with the first number higher than 3 after July 15th would be excessive for what is necessary for healthy plants.

Steps to avoid forecasted frost:

Lay a cover directly over the plants. Preferably it should not be in contact with the leaves. Leaf tissue directly touching the cover is more prone to frost damage, especially if using plastic. Staking may be required to keep the cover from contacting leaves, or to

keep it from crushing young tender spring foliage. The purpose of this covering is to prevent the loss of radiation cooling, or the heat in the ground from going up and away from the plant tissue. The cover will trap the warmth of the soil that is usually greater in the fall than early spring before the soil temperatures have had an opportunity to elevate. Cold air generally comes from higher in the atmosphere and drops down on calm nights. Drape the cover to meet snugly with the ground in order to prevent the cold air from invading the trapped warmer air underneath, and weight it down to prevent the cover from blowing off overnight. Heavier coverings such as blankets, and even lighter weight layers when there is a chance of their getting wet, may require extra staking, especially for softer hosta leaves in the spring. Wooden stakes, lawn chairs or inverted, extra-large, plastic pots selectively placed over favorite hostas for additional protection make effective structures for supporting insulation. In the fall, taller scapes, or even very tall bent over scapes can help support covers.

Reemay® cloth is a very light and effective commercial frost cover. One of its advantages is that it allows enough light transmission to be left on hosta plants for a few weeks with no apparent detrimental effects. This spunbonded material is also thin enough so not to hold water, and because it is a polymer it will not hold moisture and become moldy. Normally a single cover layer can provide 2 to 7 degrees of protection. Covers of plastic tarps or sheeting are not as efficient as newspaper, which is not as good at insulating as woven material such as bed sheets. Cardboard boxes make excellent frost armor, but metal cans are not advised. Plastic pots used in container-growing plants can also be used. Those pots with drainage holes may need to be plugged with newspaper for additional protection.

Two layers, such as a large plastic pot with an additional top layer of burlap, may guard against even lower temperatures. If plants are not too tall a few handfuls of dried tree leaves can provide yet more protection when covering the foliage.

Water is also effective in many ways. Keeping your garden well watered early the morning before a frost may actually allow for greater radiation warming from the sun (if your hosta beds get direct sun). A dry garden will hold less heat than a wet garden. Irrigating during low temperature hours can also help. The warmth in the water can warm the foliage and surrounding air. Although evaporation of water takes energy and will cool the surrounding area, water releases a tremendous amount of heat as it freezes. Since hostas can tolerate (especially mature fall foliage) some temperatures below freezing, the heat given off during the freezing process can provide additional warmth as well. If you are not able to water your garden continuously during forecasts of frost, even short intermittent periods of a few minutes irrigation during the most critical period will help by keeping water on the foliage.

If your hostas are damaged by early fall frosts it is usually not critical, and you may just be able to do a normal fall clean up. If the frost is quite early however, it may affect next year's growth. John Kulpa (Detroit, MI) discovered that mowing off foliage early to get a jump on his fall cleaning caused his plants to be smaller than they had ever been the following season. The danger here is that the plants would normally be sending the nutrients and starches from the leaves back into the crown for winter storage. If leaves are damaged, frozen or removed too early it may prevent the plant from stowing its needed reserves.

Plants injured by late spring frosts are more devastating but seldom are life-threatening for the clump. Most older plants have secondary eyes or secondary flushes that can develop if the entire first flush is destroyed. However, plants will not be as large as they would if the first flush was undamaged. The larger concern is not the actual frost damage but some secondary bacterial or fungal infection that may begin in the damaged tissue and not be arrested before the entire clump is killed.

To protect against secondary diseases the foliage should be cleaned down to healthy tissue if the injury is extensive. Some hosta growers cut the damaged leaves off at the ground or even run over them with a lawn mower. When cutting damaged tissue be careful not to spread other diseases or hosta viruses. The foliage can be picked off by hand, but tends to be rather slimy. Leaving extensively damaged frozen leaves on clumps to dry can restrict the new flush of leaves from emerging causing trapped or distorted growth. If the injury is limited to the tips of the leaves or small spots and the foliage has not fallen down on the ground, you may allow the foliage to dry up on its own and just monitor the plant for other diseases.

We are still learning about frost or cold tolerance differences among hosta cultivars. Plants pre-conditioned to cold are frequently better adapted to survive early fall frosts with less injury. Spring tolerance can be the result of how emerged growth is. However, in general, hostas with lighter colored foliage and those white or yellow portions tend to be more susceptible to frost. Even so, we can still take several actions to ensure a healthy and happy hosta garden.

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Be sure to check out our FACEBOOK page  
at <https://www.facebook.com/blackswamphostaanddaylilysociety/?fref=ts> and our  
website at <https://blackswamphostaanddaylilysociety.weebly.com>.

Eileen Hoffman has been maintaining the sites for us. Thanks, Eileen, for doing such a great job!! We appreciate it!!!! If you have anything for Eileen to post, her email is <[sailA33@accesstoledo.com](mailto:sailA33@accesstoledo.com)>.

If you have any info for the next E-FLASH, be sure to send it to us.

Live life to its fullest!!!!