

The Daffodil Rave

Newsletter of the Greater St. Louis Daffodil Society



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Editor's Note

Still having trouble with this program. Pictures and articles dancing around the pages, additional pages that I have yet to figure out how to get rid of them....

In any case, enjoy the newsletter and let me know what else you would like to see in print.

Sonja

Hot Water-Treatment for Control of Diseases in Daffodils



Hot-Water Treatment

At our July Meeting, Kathleen Simpson made a presentation on the Hot-Water Treatment (HWT) to control certain pathogens in daffodils. The treatment is effective against stem nematodes, basal rot, bulb Fly larvae. This method is recommended for all bulbs pulled from a problem bed as well as bulbs to be exchanged.

Ms. Simpson method uses the Sous Vide method of cooking food in hot water. The unit she presented is by ANOVA (AN500), but there are others available on the market. The method consists of the following:

- 1- Heating unit attached to a home cooler
- 2- Solution of one (1) part household bleach to nine (9) parts water with a squirt of detergent.
- 3- Soak bagged bulbs (use bleach-proof tags) for at least 3 hours at 80°F, then increase heat and hold at 112°F for 3 hours.
- 4- Rinse in cold water, plant right away or dry well and store properly

Ms. Simpson recommends doing this procedure OUTSIDE only using a good extension cord in a GFI outlet.

More information can be found in *Daffodil Diseases and Pests* by Theodore Snazelle, available at the ADS WebStore.

<https://stores.daffodilusastore.org/daffodil-pests-and-diseases-booklet/>

Background

Hot-Water treatment also called 'sterilising' is a key operation in bulb handling. In 1917, J.K. Ramsbottom focused his attention on *Dytilenchus dipsaci* bulb and stem nematodes. The result is the Hot-Water Treatment. In the 1930s it was shown that the addition of the disinfectant formalin (formaldehyde) to the tank of water improved controls of stem nematodes and also helped to control basal rot (*Fusarium oxysporum f.sp. narcissi*).

In 2008 the horticultural use of formalin was banned by the European Union forcing bulb growers to seek a replacement disinfectant. Other alternatives were considered, but the results have shown the effectiveness of the high temperature treatment against stem nematodes, even when plain water with no disinfectant added is used.

Along with stem nematodes, other pests that have similar or lower tolerance to high temperatures, are incidentally controlled by HWT. Pests that have reportedly been controlled are the nematodes,

bulb mites and small narcissus fly larvae. The lethal temperatures to these pathogens are close to those that will damage daffodil





tissues. Even properly controlled (in the industry) HWT will result in some leaf-tip and flower damage, and yield loss.

Note: this bulb was found among the one being cleaned. Cindy contacted Jason Delaney who identified the syndrome as 'Horse Teeth'. According to Jason, the industry does not know its exact cause and the problem has been strictly a Dutch problem. Substantial losses occur in the industry and some cultivars like 'Mount Hood' have been pulled from the market because of their susceptibility to the syndrome.



Speculating on possible causes, I would think that soil pathogens such as bacteria, oomycetes, nematodes, or mites could be responsible – great way to assure your own private source of food. A similar multiplication of plant tissue occurs with oak galls. The insects release chemicals that are injected in the branches and trick the genes of the oak into making tissues that will protect them from outside harm as well as provide a food source as (seen in Pin Oaks)

Very tricky and sneaky...

What a Party!

On August 19th, we met at Cindy and Joy Haeffner's residence to clean and bag the bulbs that we had on hand. We had help from GSLDS members and gardeners in Hermann, the tasks were completed easily so we could all enjoy the sharing of the lunch items. As always gardeners share great food from their kitchens. Following our lunch, some were treated to a tour led by Cindy around the property. As a bonus, we got to take home pears that were begging to go home with us.

Thank you, Cindy, for coordinating the efforts so we can enjoy selling the bulbs in the fall and have a successful bulb exchange as well.

How to plant your bulbs

Sonja Lallemand

Easy to do! Dig a whole 6" deep, sprinkle some bone meal and other organic material at the bottom, drop in the bulb with long part facing up, flat bottom (basal plate) touching the ground, cover with amended soil, water, mulch and wait until spring.

However, following the 'rule of threes' you will manage the proper planting depth for both large bulbs and certainly for smaller or miniature bulbs. The addition of bone meal will help promote fall root growth.

Daffodils enjoy full sun when they are growing from spring to July (when they go dormant.) Choose your sunny site and create friable soil by adding organic material (no animal manure) to grow your bulbs. important to increase drainage, so the bulbs will not sit in water in the spring.

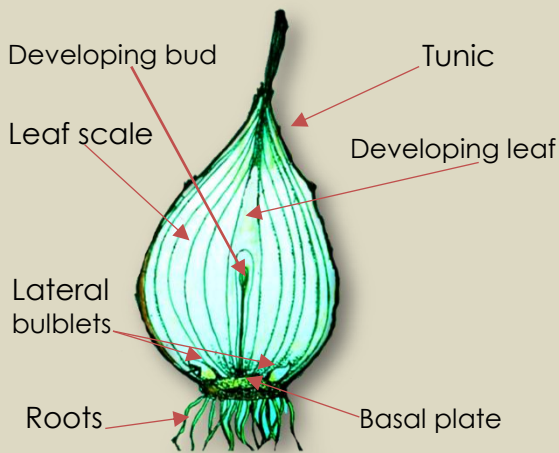
Overcrowded bulbs will show smaller flowers. Once the foliage has died back in the summer, the bulb goes dormant and can be dug up and the clump divided. The bulbs can be replanted immediately but inspect them for disease or insect damage before replanting.

Increase your collection or share it? Daffodils propagate asexually by producing small bulbs, called offsets, which develop from buds within the base of the mother bulb that produces new bulbs. The bulb offsets must reach proper size, accumulating desired amounts of nutrients before they can bloom. You may separate small bulb offsets from the mother bulb and re-plant when they enter dormancy. The daffodil enters dormancy when foliage starts to turn yellow and falls.

Give your daffodils time, proper nutrients, and plenty of sunlight (6 hours minimum) so you can enjoy the flowers next spring!



Anatomy of a tunicate bulb



N. 'Ice Follies'



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24th Annual Daffodil Show

presented by
The Greater St. Louis Daffodil Society
“Open to the Public”

Friday April 5, 2024 -- 2 PM to 5 PM

Saturday April 6, 2024 – 9AM to 4 PM

Show setup Thursday afternoon and Friday morning

First Free Church
1375 Carman Road, Manchester, MO 63021
Room 341

Floral Design and Horticulture Exhibits at the Daffodil Show

