

# florida daffodil society news

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## DUE NOW

Annual dues are due! If you owe dues, a form is enclosed with this newsletter to facilitate payment!

## HOW A BULB WORKS

What Harold Hume wrote about weather is still applicable today: "of all the factors that control the distribution and growth of plants climate is still the furthestest reaching in its effects".

It all starts with photosynthesis. The bloom fades and sunlight falling on the leaves is transformed by chlorophyll into chemical energy. In the course of photosynthesis, the hydrogen of water is used to transform carbon dioxide into a carbohydrate – starch – which is stored in the leaves inside the bulb, and oxygen is released into the atmosphere.

In Harold Hume's 1929 book, Gardening in the Deep South, one reads how bulb behavior can be explained by viewing the bulb as a carbohydrate. Hume discusses the need of water and the assistance of potash in starting the cycle after blooming and again in October when starch is changed into sugar, which is the bulb's useable food. Should this cycle be interrupted by extremes of climate, flowering and growth will be affected or even halted. Without sufficient sunlight, there will not be enough starch to change into sugar and the bulb will absorb the flower bud to maintain its "energy level" to stay alive.

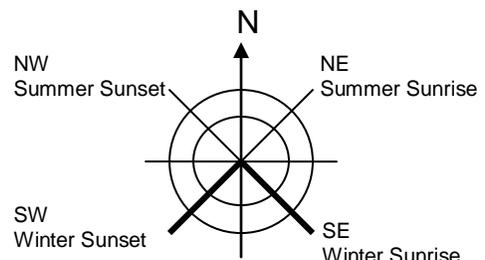
The term "cold dependent" refers to the hours of cold necessary for the bulb to change starch into sugar. Hume describes how trees, bushes and plants can starve in Florida, as they cannot access their stored starch due to lack of sufficient chilling hours. The "cold dependent" concept is only half the answer: the reason why daffodils grow in Florida and

lilacs do not is because bulbs vary in their cold dependency and have a short growing/ blooming time. This versatility means some can "fit" into short time frames, i.e., blooming in January instead of April as they do in the North.

Photosynthesis cannot be complete without cellular respiration. With heat, the rate of respiration increases and when night temperatures are over 70° respiration competes for the day's stored starch. Insufficient resting time leads to poor blooming. The FDS encourages watering during the photosynthesis stage, which lasts 6-8 weeks, to lower temperatures as well as assist photosynthesis. Daffodils lacking heat tolerance will have weak, stunted leaves and eventually the bulb will die.

The term "heat dependent" is not often heard, but is very important as bulbs must have warm, dry (and with tazettas, hot) soils to develop their flower bud in the summer. Remember, bulbs do everything very slowly. As daffodils are tested in Florida, the last dependable bloomers should be white tazettas. Color, starting with red, is cold dependent.

## SUN DIAGRAM



How to locate the sunniest location (the shaded area on the diagram) to plant bulbs so they get the sun when they need it most.

## HOW A BULB DOESN'T WORK

A February article in the New York Times described the concept of imbibition as "the swelling of plant tissues to several times their original volume". The interaction of electrical changes and polarization of water molecules can give some plants' roots the ability to break cement. Bulbs can't do this. The best a big bulb can do, according to Bill the Bulb Baron, is to come up through one inch of small bark mulch, which is why the FDS so strongly advises against the use of heavy bark mulch. However, bulbs can send leaves up for great distances in soil. Unfortunately, people get concerned when they find bulbs "way down there" and "lift" the bulb, not understanding that the bulb is seeking a uniform soil temperature.

## AMERICAN DAFFODIL SOCIETY APPROVED GARDENS PROGRAM

Following in the footsteps of other national plant societies, the American Daffodil Society, under the direction of Sara Van Beck, has initiated an outreach program of approved public and private gardens. The goal is to recognize regional daffodil culture both of modern and historic daffodils and promote the availability of these gardens to the public. To date, ten gardens in six states will participate this year and ten more will be added in 2008. Florida is represented by Goodwood Museum and Gardens (pre-1925 daffodils found on site) and the Van Beck garden (daffodils suited to Florida and the Coastal South). The State Botanical Garden of Georgia's Heritage Garden in Athens features daffodils grown in Georgia prior to 1900. The other Georgia site is the Smith-Gilbert Arboretum, Kennesaw. The highlight of the American cultivar collection is daffodils hybridized by Grant Mitsch. Illinois and Missouri are represented by state botanical gardens. Utah's Durtschi Garden, in Stockton, and Thanksgiving Point Garden show daffodils suitable to that state, and Tennessee is represented by two gardens: Historic Carnton Plantation, Franklin, with

historic daffodils prior to 1864 and Cheekwood Art and Gardens, Nashville. Contact and garden information, including images, will be posted on the ADS website [www.daffodilusa.com](http://www.daffodilusa.com).

**The Van Beck garden will be open by appointment and on the weekend of March 1-2, when the FDS Flower Show is held. Call 850-878-9753.**

## ADS FALL BOARD MEETING

The American Daffodil Society Fall Board Meeting in Tallahassee was a huge success. Lori Johnson had a convention table set up and Doris Partridge was in charge. The weather was good and the donated food even better, thanks to Tiffany Bourassa, Emily Millett and Mary Maude Sharpe. On Saturday the FAMU band performed, the meeting convened and by four o'clock all were ready for a gracious tea served by Phyllis Graham, her mother, Lovie Hall, and Tiffany Bourassa at Jubilee. The board members toured the grounds and house at Goodwood, held an ADA fundraiser bulb auction, and had dinner at Paula's Café. A beautiful new bus transported the group from hotel to Goodwood and back to the Doubletree Hotel.

## BULB SALES

A big thanks to everyone who sold, bought and/or planted daffodils this fall. The FDS purchased over 35,500 bulbs and they are all gone! The success of the Master Gardeners (MG) and Garden Clubs in our outreach program was amazing. Sue Warren and her Escambia County MG sold 9,785 bulbs. Duval, Okaloosa, Santa Rosa County MG and Live Oak, DeFuniak Springs GC sold bulbs. DeFuniak Springs put 1,000 Carletons into their public planting, bringing the total number of disbursed bulbs to 18,435. September through November were busy months, with a total of nine bulb sales/lecture programs and an additional lecture/sale at the Florida Master Gardeners Fall Conference.

# Happy Holidays