

Ornamental Research News

Central Florida Research and Education Center

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Dieffenbachia "Star Bright" approved for release

Plant Breeding

Dr. Jake Henny, Geneticist

The University of Florida (IFAS) approved release of the new dieffenbachia hybrid `Star Bright' in August 1993. Several years of hybridization and many different parents were involved in the development of this attractive cultivar.

`Star Bright' has many distinguishing traits that have remained stable on plants grown under normal greenhouse conditions in Florida. The average length of mature leaves of `Star Bright' is approximately 4.5 times the width of other dieffenbachia cultivars, which have leaves that are twice as long as they are wide. The highly variegated leaves may reach 18 inches in length and 4 inches in width. Foliar coloration consists of three colors on the upper leaf surface, ranging from green to yellow-green and cream, with similar, yet slightly subdued, coloration on the lower leaf surface.

Petioles have a whitish-green tint which complements the coloration of the foliage. Leaves project outward from the main shoot in a star-like pattern and have a graceful arching orientation and plants average 3 to 5 basal shoots giving a full appearance beneath the main shoot.

Dieffenbachia `Star Bright' is being propagated by Florida tissue culture laboratories that assisted in its selection, initial increase and evaluations. A list of co-operating laboratories may be obtained from the Florida Foundation Seed Producers Inc., P.O. Box 309, Greenwood, Florida 32443, (904) 594-4721, FAX (904) 594-1068.

Cornepora Disease on Salvia

Seasonal Watch

Dr. A.R. Chase, Plant Pathologist

It's that time of year again when bedding plants start to develop a few problems. Typically, leaf spots are the first signs of these problems. Sometimes, plants come in with tiny imperfections and sometimes they become infected after potting up. One of the most common diseases on *Salvia splendens* is corynespora leaf spot caused by *Corynespora cassiicola*. This is the same fungus that causes leaf spots on such foliage plants as lipstick plant, variegated *Ficus benjamina*, zebra plant, China doll and African violets.

Symptoms on salvia can be either tiny, black, irregularly shaped spots on lower leaves, or black, sunken areas on lower portions of the stems. Stem lesions are elongated and cause girdling and plant death on some cultivars. If the fungus is sporulating, the lesions may appear fuzzy. The spores spread very easily with rainfall or irrigation causing many new spots to form on previously healthy plants. Last summer we evaluated several cultivars of *S. splendens* for resistance to this pathogen. The cultivars most susceptible to the stem rot phase were *Empire Lilac* and *Empire Light Salmon*. In contrast, *Red Hot Sally* was most susceptible to the leaf spot phase of this disease, while another red cultivar *Fuego* showed the most resistance to both stem rot and leaf spot.

Fungicides that might control this disease include Chipco 26109, Daconil, and Dithane M45. None have been tested for safety or efficacy on corynespora on salvia and as always the labels must be checked for legal use on this crop. The best first step is to critically examine all plug trays for signs of black spots on the lower leaves. Practicing prevention by using disease free stock is always a good idea.

For further information on this disease on salvia, refer to *Corynespora Leaf Spot and Stem Rot of Salvia*, by A.R. Chase, CFREC-Apopka Research Report, RH-93-12.

Research for hire

On Center

Dr. C.A. Conover, Center Director

Since 1990, the Central Florida Research and Education Center's operating budget, which includes everything but salaries, has been reduced by approximately 50%. This has impacted our ability to provide service and conduct vital research. While our faculty has been innovative in obtaining funds from various sources to support research, it may not be your highest priority research.

One of the ways that we receive funding to help provide valuable research for the environmental horticulture industry is through the Sponsored Program Agreement, commonly called a grant. This agreement is simply a contract for research. When a need for particular research has been identified by industry and agreed upon by the state, a contract listing the purpose and terms of the agreement can be negotiated. An individual, a partnership or a corporation may enter into this contract and funding for the program will be set at a specific amount. A Sponsored Program Agreement generates information

through a final report provided to the sponsor at the conclusion of the project. Data then becomes part of the public domain through academic publications.

The major advantages of entering into a Sponsored Program Agreement are that you, the sponsor, will receive direct input on your problem or product and your research dollars will be more effective since facilities and personnel are in place to perform your research. Equally important, you will be helping the Central Florida Research and Education Center continue to provide the latest answers to problems affecting the environmental horticulture industry.

Previous Sponsored Program Agreements have included a grant to study the effectiveness of self-watering pots in interiorscapes funded by Costa Nursery Farms, Inc. Similarly, Horticultural Enterprises has funded several grants on storage and shipping of unrooted and rooted cuttings.

If you would like to discuss the possibility of sponsoring valuable research, please contact me or one of our faculty members with your ideas at (407) 884-2034.

Magnolia root borers

Entomology

Dr. Gary Leibe, Entomologist

Insects that stay out of view can give tree growers the most headaches. Understanding the biology of cryptic insects greatly increases the ability to manage them because they are usually vulnerable to insecticides only during a small portion of their life cycle if at all. One of these cryptic insects, the magnolia root borer (MRB), has been studied at the CFREC-Sanford. MRB is a moth caterpillar that tunnels in the root and root-collar area of magnolia and sweet bay. These moths have two major flight periods, one beginning in February and ending in April, and another from June until August. A third flight period might occur in October and November.

The female lays the tiny rose-colored eggs on the bark of the tree. The newly hatched caterpillars crawl down the trunk and into the soil where they bore into the root system. When mature, the caterpillar is white with a large brown head and about 1 inch long. An actively feeding caterpillar may have a reddish cast, apparently caused by the color of the gut contents. The caterpillar eventually arrives at the root-collar area where it pupates. Larval activity in this area can be detected by accumulations of reddish colored sawdust-like material expelled to the outside of the bark at various points along the tunnels. Scraping the bark with a pocket knife will reveal the tunneling activity.

The first indication of an infestation to an unsuspecting grower is the presence of trees with chlorotic and sparse foliage. These trees usually have extensive damage to the roots and base of the trunk. Severely injured root systems can be detected by pushing on the trunk and finding that the tree offers

little resistance. MRB damage probably allows the invasion of fungal pathogens. Generally, heavy infestations are found on tree farms and are associated with container grown magnolias and not with magnolias grown in the field in grow bags or bare root. MRB does not appear to be a problem in the landscape.

For more information, see *Unearthing a Magnolia Menace*, by Gary L. Leibe, in the January 15, 1994 (175:70-75) issue of *American Nurseryman* magazine.

Tree Assistance Program for nurseries reopens

Extension Corner

Liz Felter - Multi-County Commercial Horticulturist

The 1993 Tree Assistance Program (TAP) was designed to reimburse part of the re-establishment costs for small and medium commercial nursery owners who incurred tree and other plant losses due to damaging weather in 1993. This also includes losses from drought and flood. The program was reopened for nursery owners on May 9 and the signup period will extend through July 29, 1994. To be eligible, owners must have earned less than \$2 million gross annual revenue in the tax year preceding the year in which the losses occurred. Other restrictions also apply. Applications for 1993 TAP losses for nursery inventory should be filed at the county Agricultural Stabilization and Conservation Service office during the signup period. Local offices to contact are: Lake/Orange - (904) 343-2581, Osceola/Brevard - (407) 847-4201, Seminole/Volusia - (904) 734-2535.

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