

Ornamental Research News

Central Florida Research and Education Center

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Spire is on its way up

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In 1986, I obtained a finished six inch weeping fig that was different from the common weeping fig, *Ficus benjamina*. I was told that the plant, from a commercial tissue culture lab, was more upright than the standard weeping fig when grown under approximately 70% shade. Since an evaluation of ficus cultivars was in progress, I was delighted to get a quantity of these "new" plants.

After a few weeks in one of our research greenhouses under approximately 80% shade, there was considerable defoliation of the inner (older) leaves. Internal defoliation is not uncommon in plants with many upright stems once they have been shipped to retail outlets.

Observations of the "new" fig s growth habits were made from 1987 to present. One experiment was designed to compare the growth habits of the common weeping fig and the "new" fig when grown under light levels of approximately 1500-2000 foot-candles. Other experiments were conducted to determine the influence of shadehouse light levels of 47, 63, 73 and 80% shade and full sun on the growth habit of the "new" plants. Because detailed reports of these studies are still being prepared, only some findings are presented here.

Twenty-one weeks after transplanting plants from four-inch pots to eight-inch pots under 80% shade, *F. benjamina* was 43 inches tall and 35 inches in width while *F. benjamina* Spire' was 30 inches in height and 15 inches wide.

Shade level greatly influenced growth of *F. benjamina* Spire' in eight-inch pots. Plants grew to an average height of 57 inches under 80% shade compared to 45 inches for those grown under 47% shade and 22 inches under full sun. Average plant widths at 80% and 47% shade were 19 inches and 18 inches, respectively, while plants grown in full sun were 13 inches in width.

Ficus benjamina 'Spire', originally promoted by University of Florida, Central Florida Research and Education Center as 'Florida Spire', is a distinctly columnar plant only if it is grown constantly in low light levels. Low light levels (1500-2000 foot-candles) should be maintained during stock production, rooting of cuttings or production of tissue-cultured plugs, and all stages of plant finishing. 'Spire' should be grown as a single-stem plant through the liner stage to avoid crowding of lateral stems that can result in defoliation. Plants can be finished with one to three liners per pot, depending upon the desired effect and pot size. Some of the cultivar names used by nurseries for *Ficus benjamina* 'Spire' during the mid to late 1980's were: 'Brazyl', 'Compact Wintergreen', and 'National Pride'.

Recently there has been favorable publicity for 'Spire' in a national interiorscape magazine. Growers producing 'Spire' for the interiorscape trade indicate it is in demand. 'Spire' is on its way up in popularity.

New growth on woodies invites insect infestation

Entomology

Dr. G.L. Leibe, Entomologist

The arrival of noticeably cooler temperatures, shorter daylength, less rainfall and lower humidity marks the season when many woody landscape ornamentals produce a flush of growth. This new growth develops quickly and is especially attractive to aphids and scale, which can arrive immediately and reproduce so rapidly that heavy infestations develop, seemingly overnight. This can be especially bothersome with aphids because a single individual of some species can severely distort the growth of a new leaf or stem. Fortunately, most aphids are easily observed and both the young and adults can be controlled with insecticides.

Not so for scale insects, which often go unnoticed on the new growth until it's too late. The tiny, just hatched, crawler stage of the scale insect moves from infested leaves and stems, generally settling on the underside of the new leaves, usually never to move again. Once scale insects have settled and produced their protective covers, they become more difficult to control. Therefore, targeting the crawler stage for insecticide application during a growth flush can greatly increase the level of scale control. But, remember, insecticides are often more phytotoxic to new growth, so test for phytotoxicity on a few plants using the recommended procedures before treating an entire crop.

The importance of timing for effective scale control was shown in a study conducted at the CFREC-Sanford in which foliar applications of bifenthrin (Talstar 10 WP) and fenoxycarb (Precision 25 WP) were compared for control of magnolia white scale (also called false oleander scale), *Pseudaulacapsis cockerelli* (Cooley), on *Magnolia grandiflora* L. Both insecticides were ineffective at controlling mature scales present one month after treatment of the mature foliage. However, when applied once during the middle of the two-week growth flush period and again one month later, both insecticides effectively

prevented scale establishment on the new foliage from the time of flush through the end of the study three months later. There are many species of scale that attack woody landscape ornamentals. Control recommendations can vary with the species of scale, variety of plant, and insecticide involved. For specific control recommendations consult the product label and the 1994 Florida Insect Control Guide, or contact your County Cooperative Extension Service office.

Numbers, what do they mean?

On Center

C.A. Conover, Center Director

In 1987, the foliage plant industry was listed by USDA as having a net value of \$308,986,000 in sales, the highest level ever achieved. Seven years later in 1994, the net value of foliage plant sales was \$226,043,000, a decline of 27%. Does this mean the industry has shrunk in size by 27% or just generated fewer dollars per plant sold? Well, looking further, the same USDA documents show a total production area of 193,365,000 square feet in 1987 compared to 157,617,000 total square feet in 1994, an 18% decline in total production area during the same seven years.

Considering the effects of Hurricane Andrew in 1992, the March 1991 hail storm in Apopka and current pricing, it's easy to understand why an 18% decrease in production area might occur. However, most producers have increased efficiency over the last seven years, so why has there been a 27% reduction in net sales? One doesn't need to be a rocket scientist to realize that industry prices are lower now than in 1987. The most significant price decreases have occurred in larger plant materials, which make up a greater portion of the industry than they did in the past.

By now, you're probably wondering what point I'm trying to make, well, I would like to make several. First, I believe the industry has not declined significantly in number of units produced (which are within 5% of each other over the seven-year period). Secondly, the 27% net value decline in sales appears to be related to pricing, which is too low! Lastly, the industry must stabilize and increase prices if it is to remain competitive everything used in production is increasing in cost!

Protect your skin

Extension Corner

Liz Felter, Multi-County
Commercial Horticulturist

Greenhouse and nursery workers are prone to different skin problems, such as rashes, lesions, wounds, skin cancers and wrinkles. Although most of these problems are preventable, many workers have had to seek medical attention and some have even had to miss work to heal properly. While pesticides are usually blamed for rashes and other problems, plants are often responsible.

Plant-induced dermatitis - The 3 primary types of dermatitis caused by plants are:

- Primary irritant dermatitis - direct irritation caused by chemicals in the plant (e.g. tulip bulbs).
- Allergic contact dermatitis - skin becomes sensitized to the chemicals in plants (e.g. aglaonema, dieffenbachia, poison ivy).
- Photosensitive dermatitis - the chemical from the plant gets on the skin, then the sun causes irritation to the area. (e.g. fig trees).
- Eczema and other skin irritations - Workers often get eczema on their hands because of the frequent washing and drying. Irritations can be caused by skin-drying soaps and chapping from wind and/or soil abrasion.
- Wrinkles and sun spots - These skin problems are due to repeated and prolonged exposure to the sun.

Recent medical journals point out that melanoma, a type of skin cancer, is on the rise. Prevention is the best cure, so it makes sense to begin protecting your skin. Dermatologists recommend that workers exposed to the sun wear sunscreen with at least a SPF-15 every day. Sunscreen should be applied to faces, necks, ears, hands and arms 30 minutes to one hour prior to exposure. Hats and gloves should be worn even in the greenhouse.

Gloves, long sleeves and hats can prevent many skin problems. Standard leather and cloth gloves are adequate for most purposes, while for those who need additional dexterity, such as propagators, surgical gloves work well.

Pesticide Training Course

Designed for Restricted Applicator's License holders, this course will provide 2 Continuing Education Units toward renewal of the license. The course will cover general information about the use of pesticides, so anyone can benefit from the training. You may attend any one of the three sessions to be held, two at the Lake County Ag Center, November 9, 1994 at 2:00 pm and again at 6:00 pm, and a third at the Orange County Ag Center on November 10, 1994 at 10:00 am only.

For more information contact:

Lake County Ag Center (904) 343-4101

Orange County Ag Center (407) 836-7570

Central Florida Research and Education Center

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Telephone 407/884-2034 Fax 904/392-9359

Hours 7:30 am until 4:00 pm, Monday thru Friday.

Grower Diagnostic Clinic: every Thursday 1:00 to 3:00 pm.

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