

Ornamental Research News

Central Florida Research and Education Center

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Extension Corner

Celeste White - Orange County Extension Agent

Preventing Phytotoxicity

Almost half of the problems brought to the grower clinic for diagnosis were not caused by pathogens, insects or mites. The non-biotic symptoms which were observed can be attributed to cultural or environmental stress. Many of the problems could be traced to phytotoxicity or injury related to a pesticide application.

Pesticides need to be used wisely. The first and most important step before using a pesticide is to correctly diagnose the problem. Without an accurate diagnosis, an inappropriate chemical may be applied; the problem is not corrected, and time and chemicals are wasted. Application of the wrong pesticide might even make the problem worse.

After the problem is correctly diagnosed, the next step is to select the most appropriate chemical for the problem. References to help make this decision include recommendations from the Extension Service, chemical representatives or from the pesticide label. Also consider environmental concerns and worker safety when choosing any chemicals for agricultural use.

Be certain that the chemical is safe for use on the crop. If you have not used the chemical in question previously, perform a test on a small group of plants for phytotoxicity before full scale application. Test the pesticide under your conditions and on each type of plant you would like to treat. It would be ideal if chemicals were tested prior to serious pest or disease outbreaks.

Other factors to consider in pesticide use include reading the label for precautions and applying the chemical at the accurate rate at labeled intervals. Avoid spraying during high temperatures.

The most important method of disease control is prevention. Maintain healthy plants. Scout the nursery and monitor for problems. Use common sense and eliminate factors that favor disease development.

Develop plans for potential problems. It is costly to apply pesticides and especially expensive if the application does not result in disease control but in crop damage.

Economics

Dr. J.J. Haydu - Economist

Why Is Marketing Important?

Many nurserymen are reluctant to endorse marketing programs. One possible reason is that there is often confusion between the terms "selling" and "marketing." Selling is the function in the marketplace where the "seller" tries to dispose of his or her plants for the best price that the customer is willing to pay. On the other hand, marketing is much more comprehensive and strives to maximize the returns to the producer, at a price the consumer can afford. It reaches this objective by using the marketing concept at the beginning of the production process and throughout all stages of distribution until the consumer purchases the product. Marketing emphasizes that customer satisfaction is paramount and that the consumer's perception of value determines price, not the other way around.

Several problems can affect the marketing of ornamental plants. First, producers must recognize that consumer demands continually change. Items or hobbies that are exciting for people today may become insignificant tomorrow. Second, growers often view their role as ending at the nursery gate and are not concerned with marketing. Many producers assume blindly that their product will sell itself, that quality alone will determine both sales and prices. Basic questions such as "Who will buy my plants?" or "Will the price I receive be adequate to cover my costs?" if asked, are frequently never answered, or if they are, they are asked too late. Third, some nurserymen limit their market to one or two outlets. Whether it be retail garden centers, chain stores, or a few landscape contractors, putting "all your eggs in one basket" can potentially make a firm more vulnerable to downturns in the business cycle.

Fourth, agricultural production is carried out in anticipation of demand. For many products, the time-span between the decision to produce a new crop and that crop being ready for the market can be long, and in that time, the original consumer demand may change. For some nurseries, the likelihood of this happening can be unsettling, particularly for firms operating close to the margin. In these situations, even small errors can spell the difference between survival and financial disaster. Therefore, growers need to be informed about marketing trends, consumer purchasing patterns, and so on, before the decision to produce is made. Keeping in tune with markets, being knowledgeable about supply conditions within your industry, and staying alert to changes in external factors, are essential components of the marketing concept.

A fifth problem facing growers is related to how well prices reflect the demands of the end user. These demands, transmitted through the system of market prices, act as guides to producers. If a nurseryman were able to meet the end user face to face to sell them their product, there would be less of a communications problem. But producers rarely come in contact with the homeowner. This hinders

communications between producer and consumer, and is made worse by the presence of middlemen in the marketing chain. Also, in the ornamental nursery industry, there is no institutionalized price reporting system. This suggests that price information used by growers to make production and selling decisions may be incomplete and highly localized. Important decisions based on insufficient and/or incorrect information will reduce grower success. This further distorts the industry's supply and demand dilemma, and we can see how this problem becomes self-feeding, as one bad decision often begets another. Competition and the free market system are wonderful mechanisms. They have provided meaningful employment and decent living standards for millions of people worldwide. At the same time, competition can be a two-edged sword. Not everyone can be a winner. However, winners are probably more willing to ask the hard questions honestly. One of the hardest is, am I doing enough? A close examination of your company's financial records over the past several years may give you the answer. If you are not doing enough, marketing can help. It should be viewed as one of many tools available to business managers in both good times and bad. Even though it is no panacea, when used wisely marketing can provide significant leverage to businesses striving to remain economic competitors.

For further reading see J.J. Haydu 1992, Marketing Nursery Products, IFAS Extension publication FRE-69.

Seasonal Watch

Dr. A.R. Chase, Plant Pathologist

Pseudomonas Leaf Spots

The best anyone can say about winter weather in Florida is that it is unpredictable. Temperatures can range from a balmy 85°F one day to below freezing that same night. Most of the larger foliage plants which can be grown in open shadehouses during the rest of the year must be protected from these temperatures. Growers can provide the warmth needed for plants to continue to grow by enclosing shadehouses in plastic. Unfortunately, conditions in the shadehouses can become nearly as wet as they would in summer. The cool temperatures and high humidity are ideal for development of bacterial leaf spots and blights caused by *Pseudomonas cichorii* and *P. andropogonis*.

Symptoms of *Pseudomonas* leaf spot include water-soaked spots that turn to a dark green-black. They may have a yellow edge but this is not common. On some plants the spots become so large that they may cause the leaves to drop off. I have seen this disease develop so rapidly on dwarf schefflera that the plants looked like they had been sprayed with a defoliant.

Control of *Pseudomonas* leaf spot should be based on reducing humidity in the shadehouse or greenhouse. Vent the houses near the end of the day to reduce relative humidity. Irrigate early in the day to promote rapid drying and try to eliminate overhead watering as much as possible. Use of copper

bactericides sometimes reduces disease but complete control is rarely achieved. Copper can cause phytotoxicity on some plants with the result that disease can actually be worse following a copper spray than it was before. Infected plants should be removed from the growing area and destroyed since the bacterium spreads easily to healthy plants. Although tissue culture plants may be free of the disease when purchased, they are as easily infected as cuttings.

Some of the most common hosts of *P. cichorii* are fiddle-leaf fig, dwarf schefflera, chrysanthemum, gerber daisy, geranium, and hibiscus, while *Ruscus hypophyllum* is a host for *P. andropogonis*.

On Center

Dr. C. A. Conover - Center Director

Dr. Ann R. Chase Retires

Did you know Dr. Ann R. Chase retired from the University of Florida (CFREC-Apopka) on February 4, 1994? We will miss her greatly and so will the industry she served for over 14 years.

For those of you who don't remember, Ann Chase received her Ph.D. in Plant Pathology from the University of California at Riverside in November 1979. Upon graduation, she moved to Florida taking the position of Assistant Professor of Plant Pathology at the University of Florida Agricultural Research and Education Center in Apopka. Her appointment was for research on diseases of ornamental plants including foliage, cut foliage and associated crops.

Quickly rising in her career from Assistant to Associate and finally to full Professor of Plant Pathology, Dr. Chase has been a prolific researcher and writer. She has received over 1/2 million dollars in grants from numerous sources during her 14+ years with the University. Author of almost 70 refereed articles, over 400 popular and trade magazine articles, three books and chapters in several other books, Ann has contributed much to the collective knowledge on diseases of foliage plants and their control.

Ann was elected to Professor Emeritus upon her retirement and will be working with the Center from time to time on special projects. The Center has received approval to refill the position vacated by Dr. Chase and a nation-wide search will be conducted during 1994. Dr. Chase now lives in California and plans to start a native California plant nursery near Fresno.

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Ornamental Research News - Chris Fooshee, Editor
