

BIG BO THE FLOWER EATER

by Margery Daughtrey, L.I. Horticultural Research Lab

Big Bo is not a creature from the Sesame Street crew, but a fungus with a big impact on the greenhouse grower: *Botrytis*.

The *Botrytis* fungus is perfectly suited to the food and environment provided by a greenhouse. It shares the grower's appreciation of flowers, as these are the part of a plant most easily colonized by the fungus. In most cases, *Botrytis* will not attack healthy green leaves and stems unless petals come into contact with them. Moisture will often be trapped between fallen petal and leaf, providing another essential ingredient for fungus growth and infection. One perfect situation for this petal-to-leaf disease spread is a greenhouse where baskets of hybrid geraniums are grown hanging above a zonal geranium bench crop. Disfiguring dark brown leaf spots will develop on the foliage of the zonals due to the petal shattering from the crop above them. Stem infections by *Botrytis* may either follow from leaf infections or develop at wound sites. Poinsettia, geranium and *Exacum* frequently develop tan or brown stem cankers when conditions are ideal for *Botrytis* infection.

The flower crop is not the only location where the *Botrytis* population may build up within the greenhouse. Any plant debris allows an increase in *Botrytis* inoculum and thus increases the possibility of crop infection. The fungus grows well as a saprophyte on decaying organic matter, and produces many spores on dead plant tissue. The light, delicate spores which spread the fungus are moved by air currents from dead leaves on the greenhouse floor to the surface of the crop. Prompt removal of debris is thus a critical sanitation procedure for *Botrytis* disease control.

Another simple way to reduce infections in the greenhouse is to minimize the length of time that leaves are wet, as this is the only circumstance under which the fungus spores will be able to germinate. Water early in the day, and ventilate the house at sunset when the air suddenly cools, to prevent condensation on plant surfaces. Keep the air moving in the greenhouse to avoid a stagnant, disease-conducive atmosphere. Many fungicides effective against *Botrytis* are available for use on ornamental crops; these can be used to supplement a good environmental control program.

Big Bo may plague the outdoor cut-flower as well as the greenhouse grower. In dry weather, *Botrytis* will not be much of a problem. If plants are watered overhead, irrigation should be timed so that the plants are not wet through the night. Following a rainy spell, an outbreak of *Botrytis* may suddenly appear, browning and rotting buds and blossoms and often carrying into adjacent leaf tissue as well.

The fungus is not very host-specific, and will infect many types of flowers when plant surfaces are wet for a long enough period and temperatures are favorable. Disease will develop when temperatures are 50-70°F, with an

optimum at 65°F. A light misting of an appropriate fungicide over the buds and blossoms may be used to protect plants during weather that encourages *Botrytis* infection.

Big Bo is an important fungus for the floriculturist to understand—the better to thwart it in its attacks on flower crops. See page 8 for an example of *Botrytis* damage.

Around the State . . .

There were 34 members present for the latest meeting of the **Southern Tier Growers Association**, which was held on June 23, 1982. At this meeting there were plans made for a social gathering of the association members and their retail outlets, which took place on a Sunday in September. This project was under the direction of Larry Morroni of Elmira.



The Speaker of the evening was Don Rakow, Cooperative Extension Agent for Broome County. Don spoke of upcoming regional meetings and answered many questions concerning the gypsy moth problem this year. He also announced that Cutler Gardens was open for the year, located on Extension office property at 840 Front Street, Binghamton. This is an educational garden featuring annuals, perennials, herbs, and vegetables. Also during the evening it was decided that the area Cooperative-Extension agents be made honorary members of the Association. The evening was concluded with various discussion groups.

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Cornell Scientist Wins Award

James W. Boodley, an internationally known plant scientist at Cornell University, is the recipient of the prestigious 1982 Alex Laurie Award for Education and Research from the Society of American Florists.



He was recognized for his "dedication and outstanding contributions to floriculture" and his expertise advancing floriculture study and his influence on countless researchers, teachers, and industry members.

Boodley, a professor of floriculture and ornamental horticulture in the New York State College of Agriculture and Life Sciences at Cornell, received the award during the Society's annual meeting in Miami Beach, Florida (July 22). The New York State Flower Industries was pleased to give a grant to Dr. Boodley to cover his travel expenses to the convention in Florida.

A native of Morrisville, Pennsylvania, Boodley earned the B.S. (1953), M.S. (1954), and Ph.D. (1956), all from The Pennsylvania State University.

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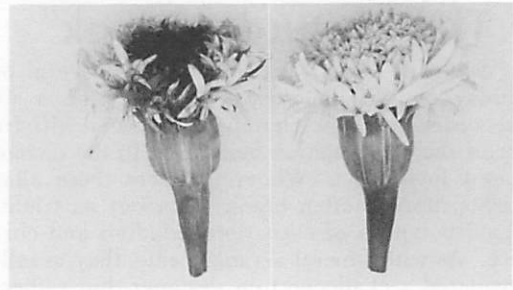
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Has this happened to your marigolds? See the article on page 2 on *Botrytis*.

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