

# FILM: PESTICIDES—PLAY IT SAFE<sup>1</sup>

by David C. Shaw

Work on the film started two years ago in Boston during the International Shade Tree Conference in Hyland John's room. Hyland called a special meeting of his pesticide committee. It became evident that a good pesticide training film was going to be vitally needed in the near future to train our people in the proper guidelines on the safe use of pesticides. The Federal Government was mandating that all states were to legislate rules, regulations, and guidelines on the safe use of pesticides in their state by October 21, 1976. If this was not done, the states would still be under the federal pesticide control guidelines.

Since Monmouth County (N.J.) Shade Tree Commission had been able to use the services of the U.S. Signal School Motion Picture Division at Fort Monmouth to make their gypsy moth movie, *The Stripper*, I thought we could contact Fort Monmouth and see if it was possible to have the Motion Picture Division again be involved in a training film. In mid-October of 1973, Hyland Johns and I, met at my office in Freehold, New Jersey with Joseph Raymond and William Welle from the Motion Picture Division to discuss the possible pesticide training film we had in mind. The representatives from Fort Monmouth advised us to make a formal request to the commanding officer for permission to film footage for our movie. This we did and permission was granted.

We then formed an ad hoc Pesticide Committee that involved people in all phases of pesticides including state and federal regulations, and those affected by these regulations in state, county, and local governments, and commercial applicators. The following members served on this committee until the completion of the film.

David C. Shaw	Chairman, M.C.S.T.C.
Hyland Johns	Vice President, Asplundh Tree Expert Co.
Egar Rex	New Jersey Federation of S.T.C.
Dr. Spencer Davis, Jr.	Specialist in Plant Pathology
Dr. John Meade	Specialist in Weed Control
Dr. Ray Kriner	Entomologist and Photography Division
Dr. Louis Vasvary	Associate Specialist in Entomology
Mrs. Shelley Asen	Region II E.P.A.

David Andreason	Region II E.P.A.
Mrs. Margaret Crooks	Garden Editor Asbury Park Press and M.C.S.T.C. member
Robert Ostergaard	Supt. M.C. Mosquito Committee
Robert Fringer	N.J. Dept. of Agriculture-Chief Entomologist
Robert Turner	N.J. Dept. of Environmental Protection Pesticide Regulatory Division
William Porter	Porter Tree Expert Company
William Welle	Motion Picture Technitions
Joseph Raymond	Motion Picture Technitions

Our first meeting was held in November 1973 at Rutgers University at the Entomology Complex and the ground rules for this film were laid out. We immediately brought together all available information we could gather on the safe use of pesticides. This included reports, brochures, papers, slide presentations for farmers pesticide use, and several movies: one on aviation pesticide safety and another on exterminators safe use of pesticides.

All this information was then critically screened by our committee during the next several months, and each item was thoroughly discussed and recorded. By mid-February 1974, we had an excellent idea about what was needed in the pesticide training film. During these months, we came up with the title *Pesticides—Play It Safe*. We were now ready to make a slide story board as the forerunner for the movie. This included the actual scenes we wanted for the movie and the narration.

During the next four months, we took pictures and slides of the scenes the committee felt should be in the slide presentation and the movie. When this was completed, a story board was set up and each scene was reviewed to see that everything complied with the pesticide regulations of both state and federal environmental agencies.

A complete program was then made of the slides and narrated by Peg Crooks. This was reviewed by all environmental agencies for their perusal and comments. If mistakes were made in the methods of spraying, disposal, washing, etc., these were corrected so that they would be cor-

<sup>1</sup>This film introduction was presented at The International Shade Tree Conference in Detroit, Michigan in August, 1975.

rect for the movie. The slides were also redone so that they complied with regulations. The narration was also revised accordingly.

On behalf of our ad hoc Committee, on August 12, 1974, in Atlanta, Georgia, I requested from the I.S.T.C. a grant of \$2,000 in order that the slide presentation be made into a training film. The I.S.T.C. then co-sponsored this movie with the Society of Municipal Arborists. The S.M.A. at their conference in Chicago granted us \$2,100 toward production cost of the movie. The National Arborist Association gave our committee \$500 and the American Society of Consulting Arborists \$100 toward the production of the movie.

By August 29, we were filming the new movie using the Motion Picture Students from Fort Monmouth at the Holmdel Arboretum. We filmed again on September 22 at the Arboretum and much of the basic part of the film was completed. Since this was the last student class to be available, the rest of the film was done by Mr. Welle, an instructor from the Fort Monmouth Motion Picture Division.

By December 1974, all the filming was completed: the editing was completed by mid-

January. The entire committee viewed the finished work print for one last time to make sure that all scenes were correct and within the pesticide guidelines and recommendations.

Peg Crooks, our narrator, and I went to New York City to Magno-Sound Studio to have the sound recorded and synchronized with the film. This recording was then sent to Calvin Laboratories in Kansas City, Missouri to be blended with the music and put on the answer print. Because of some technical problems with the blending and mixing of the narration and music, and the processing of the answer prints, it was not until May 1974 that we were able to receive an acceptable print. So a year and a half after we began, we had our movie.

The cost of prints is \$100 per copy. Paid to the Pesticide-Safety Film Fund, c/o David C. Shaw, 20 Court Street, Freehold, New Jersey 07728.

*Shade Tree Commission  
Monmouth County, New Jersey*

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## ABSTRACT

Brasier, C.M. and J.N. Gibbs. 1975. **Highly fertile form of the aggressive strain of *Ceratocystis ulmi*.** *Nature* 257(5522):128-131.

The ability to recognize the aggressive and non-aggressive strains of *Ceratocystis ulmi* in culture has enabled us to survey the *C. ulmi* population in the field and thereby monitor any variation that might indicate a change in the course of the present epidemic of Dutch elm disease in Britain. When sampling from diseased elm twigs in the outbreak areas, we have found that while most wild isolates can be assigned to the two strains, there also exist in low frequency (about 2%) isolates with some affinity to the 'fluffy' aggressive strain but which produce small black-brown sclerotium-like bodies throughout the culture and are dark centred because of the presence of brown pigment. We show here that these isolates are a highly fertile form of the aggressive strain, with a special function in the perithecial, or sexual stage of the fungus.

The occurrence of the protoperithecial form of the aggressive strain, and the phenomenon of pseudoselfing, reveal previously unknown properties in *C. ulmi* with considerable ecological implications. Perithecia occur naturally in beetle breeding galleries within the bark of diseased elms and the ascospores, together with asexual spores, are thought to be carried by the newly emerging beetles in the spring. Until now it has been assumed that for perithecial formation the absence of an aggressive A type in Britain would mean that the aggressive strain would have to hybridise with the non-aggressive strain, leading to a decline in pathogenicity. It is now clear that this is not the case and that an aggressive B type could undergo pseudoselfing to produce two progeny genotypes, one the fluffy B form, close to the parent itself, and the other the highly fertile proto A form.