

**USDA APHIS Plant Protection and Quarantine
Chrysanthemum White Rust
Project Proposal**

Title: Chrysanthemum White Rust Detection Survey

Principle Investigator: Sharon M. Douglas, Scientist
Connecticut Agricultural Experiment Station
Department of Plant Pathology and Ecology
P. O. Box 1106, 123 Huntington St.
New Haven, CT 06504
Telephone: (203) 974-8601
Fax: (203) 974-8502
Email: Sharon.Douglas@po.state.ct.us

I. Objectives and the Need for Assistance:

Chrysanthemum White Rust (CWR), caused by the fungus *Puccinia horiana*, is a potentially damaging disease of several species of Chrysanthemum. There have been outbreaks of this disease in Canada and the US, but it has been eradicated when found. The proposed survey would be conducted in conjunction with yearly inspections of commercial production nurseries for detection of other pests and diseases, and by examination of plants submitted by home gardeners to the Plant Disease and Information Office (PDIO) at the Connecticut Agricultural Experiment Station. In addition, an educational outreach component of the project will disseminate pertinent information to commercial nursery growers and hobbyist gardeners through presentations at meetings and workshops.

CWR is a significant quarantine pest in the US. Importation of Chrysanthemum is prohibited from several countries, territories, and possessions due to the potential of this organism to be transported with prohibited articles of Chrysanthemum. When CWR is found in the US, the States and APHIS cooperate to eradicate it. Management of CWR will help to protect the economic value of the nursery and greenhouse industry of Connecticut.

II. Results/Benefits Expected

The survey results will contribute presence/absence data of this non-native disease of Chrysanthemum, and in the case of presence, provide information for use in eradication programs.

Educational outreach will be accomplished by distribution of written information such as fact sheets, to professional nursery personnel and hobbyist gardeners, through their respective organizational meetings. Oral presentations will be made to professional and hobbyist organizations as requested. When oral presentations are given, a count will be

made of those present in the audience, as a way to assess the impact of these outreach efforts. Attendance at the above mentioned meetings also will be included.

III. Approach:

Outline of project strategy: Surveys for regulated non-native diseases are necessary to obtain data on the potentially threatening species so that regulatory agencies can implement eradication programs early before a more extensive, and more damaging, infestation occurs.

Data collection: Presence/absence data will be generated during the survey period to develop distribution data on CWR. See Materials and Methods Section.

Data analysis and dissemination of results: Data will be submitted to the National Agricultural Plant Information System (NAPIS) database at the completion of the survey. Distribution data may be mapped by NAPIS staff and made available on the CAPS web site.

Materials and Methods: Each year, during the course of regular nursery inspections, registered nurseries and nursery dealers are inspected for presence of pests and diseases on the stock on hand and in production. Plants are examined visually by trained inspectors, and signs and symptoms of infection are noted. When warranted, samples are transported to the PDIO for further examination by a trained and experienced plant pathologist. If necessary, plant samples will be incubated to encourage growth and sporulation of diseases, to aid in identification of the causal agent.

In addition, plants are delivered to the PDIO by hobbyist gardeners. These plant samples will be examined as above, and, when warranted, will be incubated to encourage growth and sporulation.

Survey records: Survey data will include the following: date of nursery inspection, location of nursery, name and address of the owner, names and cultivars of the host plants, and pests or diseases detected. For samples from the public, similar information will be collected. Records of CWR finds will be submitted to the NAPIS database.

Timetable: The survey will take place when regular nursery inspections occur, usually beginning in mid summer 2005. Inspections continue until completed. Submission of samples from hobbyist gardeners to the PDIO occurs throughout the year.

Facilities and equipment available: The proposed survey will take place in the State of CT. Plants will be examined visually for signs and symptoms of infection by CWR, and when warranted, transported to the PDIO for further examination. There will be no need to purchase new or additional equipment.

Personnel: Supervisor: to be named State Entomologist
One part-time nursery inspector

Personnel are currently employed by The Connecticut Agricultural Experiment Station.

IV. Location of the Project: the State of Connecticut. There are no unusual features that may impact on the proposed survey.