



# ALERT!

# CHRYSANTHEMUM WHITE RUST *Puccinia horiana*



APHIS/PPQ  
CCE  
NYS - DEC,  
DOT, DPW,  
DOH, DEP  
PRISM



CWR Infected Leaf

**Signs of CWR infection:** small dimpled spots that will gradually turn yellow then brown. These spots will form pustules on the underside of the leaf. These originally appear as buff to pink-colored. As they age, they become white. Pustules are most common on leaves and flower bracts.

All above ground tissue is susceptible but symptoms are usually most evident on young leaves and flower bracts. Severely infected leaves will dry up and hang along the stem. Symptom development may be limited or absent during hot, dry weather.



CWR Infected Plant

### Most Suspect Host Plants

- Pot Mums
- Spray Mums
- Garden Mums
- Nippon Daisy
- High Daisy
- Crown Chrysanthemum
- Pyrethrum Chrysanthemum
- Marguerite Daisy
- Ox-Eye Daisy
- Shasta Daisy



CWR Pustule

**DISEASE CYCLE:** New infections are initiated by **basidiospores** released from pustules during periods of high relative humidity (96 to 100%) when temperatures are between 40° and 73°F. Spores landing on a plant surface can germinate and penetrate in as little as two hours at optimum temperatures. A film of free water is required for infection. For 5 to 14 days after infection the fungus grows within the plant as a latent infection, after which chlorotic (yellow) spots, and ultimately pustules, appear.



Magnified Spores

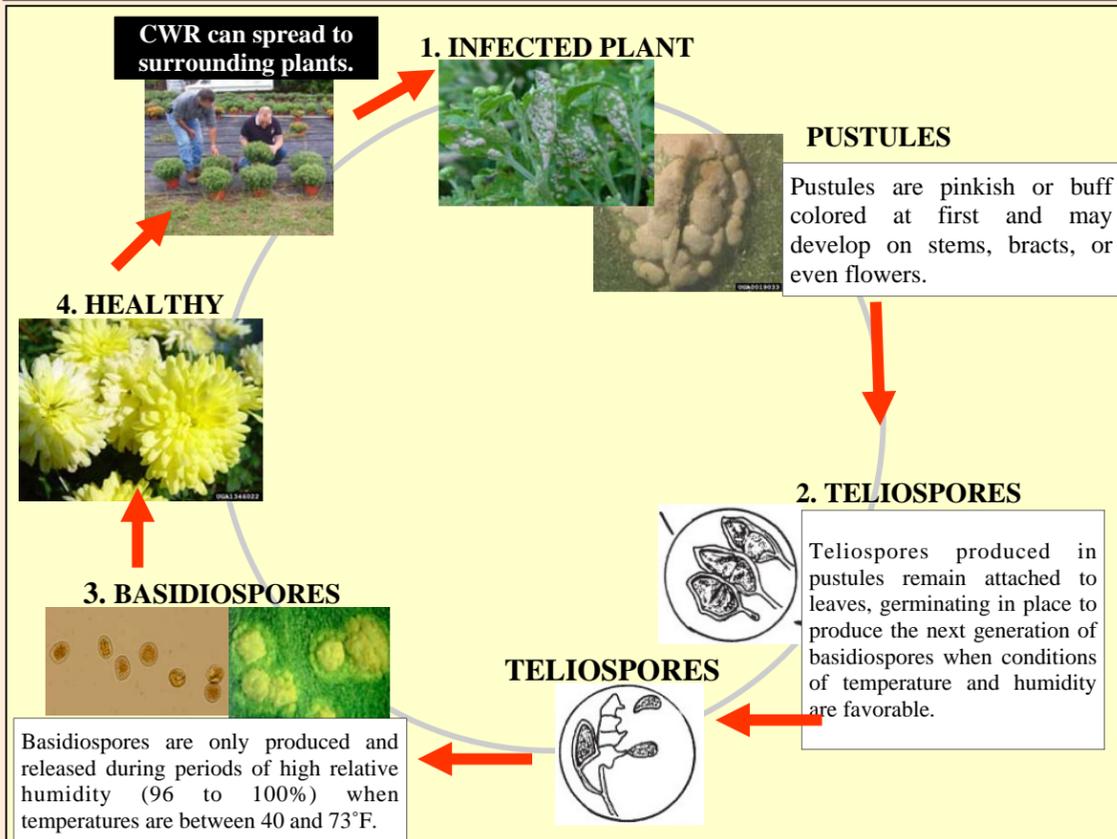
**CWR** can be transmitted to healthy plants...from infected stock primarily by splashing water that contains infectious spores.

**CWR** can be transmitted to healthy plants...by contaminated soil, litter, dead leaves, gardening equipment, clothes, shoes, and hands.

**CWR** can be transmitted to healthy plants...by movement of wind during times of high humidity or rain storms.

## CHRYSANTHEMUM WHITE RUST - LIFE CYCLE

Design by: New York State Department of Agriculture & Markets



The federal-state Cooperative Pest Survey (CAPS) program continues to focus upon the early discovery and detection of exotic invasive agricultural plant pests. State inspectors and cooperators target invasive insects, diseases and weeds considered to have a high probability for introduction and establishment in the State and the U.S. Exotic Invasives have the potential to seriously impede our ability to move plants and plant products domestically and abroad in addition to posing a significant risk to the environment.

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invasive species