

**Research Article**

## **Characterization of Chrysanthemum White Rust (*Puccinia horiana*) and its Management Under Protected Cultivation**

**Dheepa R, Renukadevi P and Nakkeeran S**

*Department of Plant Pathology, Centre for Plant Protection studies, Tamil Nadu Agricultural University, Coimbatore - 641 003, Tamil Nadu, India; E-mail: nakkeeranayya@tnau.ac.in*

---

### **Abstract**

Observation of telia under ESEM indicated the presence of dense coverage of waxy layer of cuticle over the teliospores along with the trichome hairs. All the teliospores were oblong shaped with two cells and a pedicel. Studies implied that, germination of the teliospores were completely inhibited at 1000,1500 and 2000 ppm concentrations with the fungicides like azoxystrobin 23%SC (Amistar), tebuconazole 50% + trifloxystrobin 25%WG (Nativo), difenaconazole 25%EC (Score), fosetyl aluminium 50%WP (Alliete) and kresoxim methyl 44.3%SC (Ergon). Besides, the prevention of germination, abnormalities of the teliospores was also noticed. Evaluating the bio-efficacy of fungicide modules indicated that, module II at weekly interval was most effective in reducing the incidence of white rust. Fosetyl aluminium 50%WP was the only fungicide compatible with all the tested bacterial antagonists. Integrated Disease Management (IDM) module II, comprising of tebuconazole 25.9%SC (Folicur), *Bacillus megaterium* - BM, *B. subtilis* strain BS2, *B. cereus* strain BSC11, azoxystrobin 23%SC (Amistar) and Myclobutanil 400WP were sprayed individually at weekly intervals. It was effective in controlling white rust under protected cultivation and increased the number of marketable stems.

**Key words:** Chrysanthemum white rust, fungicides, protected cultivation, *Puccinia horiana*, teliospore germination

**Citation:** Dheepa R, Renukadevi P and Nakkeeran S. 2018. Characterization of chrysanthemum white rust (*Puccinia horiana*) and its management under protected cultivation . *J Mycol Pl Pathol* 48(2): 133-154.