3rd World Biotechnology Congress

December 03-04, 2018 Sao Paulo, Brazil

Morphologic and genetic characterization of *Botrytis cinerea* Pers. isolates responsible for gray mold in *Rubus glaucus* Benth in Colombia

Liliana Isaza Valencia, Marta Leonor Marulanda Angel and Yeny Paola Zuluaga Technological University of Pereira, Colombia

otrytis cinerea Pers. is considered the most common and severe specie within *Botrytis genus*, a taxon which comprises $m{D}$ 301 accepted names (Ferrada et al. 2016; IMA 2016). This fungus induces gray mold or fruit rot in some Rubus species, in almost all berries crops, but also causes the considerable economic loss in nearly 200 agriculturally important crops (Suresh et al. 2010; Zhou et al. 2014). Botrytis cinerea is considered as a complex system of species instead of a single variable one in which have been identified two sympatric groups based onto multiple-gene genealogies (Fournier et al. 2005). All these factors have created a great intrapopulation genetic variation affecting phenotypical features, such as adaptability, mycelial growth and pathogenicity. As a result, many studies tried to assess and characterize the genetic diversity of local B. cinerea species isolated from different cultivars. Thus, this paper pretends to explore and evaluate the diversity of B. cinerea isolates across Colombian cultivars using morphological and molecular approaches over 50 collected isolates, assessing mycelial growth (vertical and horizontal elongation), sclerotial distribution, color and SSR genetic diversity. Results showed the high correlation among both types of growth with statistical differences over the population average for seven strains. Similarly, the vertical and horizontal size of sclerotium were recorded, finding significant differences inside the studied group. In addition, genetic characterization driven data resulted in the construction of a phylogenic tree showing a mid-tendency of clustering depending on the geographical regions of the collection. Finally, fungal isolates of B. cinerea collected in different Colombian Rubus glaucus Benth cultivars of showed significant differences regarding mycelial growth and genotypic clustering pattern regarding its origin area. This general behaviour could support further pathogenicity studies in order to understand explore differential severity among them.

Biography

Liliana Isaza Valencia possesses wide experience into the field of plant tissue culture and in vitro culture of strategic plant species with economic and agricultural importance, including species of Heliconia and Rubus genus. In addition, she had performed research related to the characterization of genetic diversity of the mentioned plant species.

lilisaza@utp.edu.co

Notes: