

CONCLUSION AND FUTURE PROSPECTS

The present investigation highlighted that, the deletion of MoSUMO leads to the failure in development and pathogenicity of the rice blast fungus. In addition, it showed nuclear segregation and imperfections in septation suggesting its role in cell cycle. Localization study also confirmed that MoSUMO and/or MoSUMO targets present at septal and nuclear region. Collectively, these findings confirm that the proteins which are involved in the regulation of development and pathogenicity might be absent or affected at respective stage due to inactivation of sumoylation. The findings from present investigation shall greatly facilitate the study of already identified targets, enabling to understand other sumoylation targets and its role in development and pathogenicity of the fungus. Understanding of sumoylation in host-pathogen interaction may have profound impact on controlling diseases in economically important crops.