

SURVEY AND ASSESSMENT OF SEVERITY OF EARLY BLIGHT (*ALTERNARIA SOLANI*) DISEASE OF TOMATO IN JODHPUR DISTRICT OF RAJASTHAN

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Abstract: Tomato (*Solanum lycopersicum* L) is most remunerative vegetable crop. It is infected by several pathogen among them early blight most devastating disease is considered to be a great threat to its production world widely. Assessment of disease severity is an important step and it helps in designing management strategies which help in increasing the crop yield. Therefore, a survey was conducted in tomato growing areas of different tehsils viz., Tinwari, Bilara, Bhopalgarh, Osian and Bawadi of Jodhpur district, Rajasthan during *kharif* 2020 to assess the intensity of early blight diseases. Among them the highest intensity of early blight of tomato was observed in Tinwari tehsil (32.35 %) followed by Osian (28.25%). Whereas, the minimum early blight intensity was observed in Bilara (12.04 %) tehsil. The overall average disease incidence of the Jodhpur district was (23.10 %) based on total 125 fields surveyed in *kharif* 2020.

Keywords: Survey, Tomato, Early Blight, Disease Intensity, *Alternaria spp*

REFERENCES

- Adhikari, P., Yeonyee, O. and Panthee, D.R.** (2017). Current Status of Early Blight Resistance in Tomato an Update. *International Journal of Molecular Sciences*, 6(8): 2-22.
- Akhtar, K.P., Ullah, N., Saleem, M.Y., Iqbal, Q., Asghar, M. and Khan, A.R.** (2019). Evaluation of tomato genotypes for early blight disease resistance caused by *Alternaria solani* in Pakistan. *Journal of Plant Pathology*, 101(4): 1159-1170.
- Anonymous** (2020). National Horticulture board (3rd advanced estimation). <http://nhb.gov.in/statistics/StateLevel/2018>.
- Bessadat, N., Benichou, S., Kihal, M. and Henni, D.E.** (2014). Aggressiveness and morphological variability of small spore *Alternaria* species isolated from Algeria. *Journal of Experimental Biology and Agriculture Sciences* 2:266-278
- Butler, G.P.** (1903). *Oval cigarette*. U.S. Patent 725,671.
- Datar, V.V. and Mayee, C.D.** (1981). Assessment of losses in tomato yield due to early blight. *Indian Phytopathology*. 34:191-195.
- Devi, N., O., N. Iboton Singh and RK Tombisana Devi** (2019). Survey of fruit rot of tomato caused by *Alternaria solani* in Manipur and evaluation of different cultural media for its growth characteristics. *International Journal of Chemical Studies* 7(4): 269-272
- Jewaliya, B., Gautam, C., Meena, C.B., Tak, Y., Sharma, S.C. and Singh, K.** (2021). *In-vitro* Efficacy of Fungicides against *Alternaria alternata* causing Blight Disease of Tomato (*Solanum lycopersicum* L.). *International Journal of Current Microbiology and Applied Sciences*, 10(3): 915-920.
- Kale, P.N. and Kale, S.P.** (1994). Bhajipala Utpadan (Vegetable production) Continental Publication, C.O. Pune. 29-30.
- Mahantesh, S.B., Karegowda, C., Narayana swamy, H., Manu, T.G. and Punithkumar, N.D.** (2017). Status of tomato early blight in Shivamogga and Davanagere districts. *Journal of Pharmacognosy and Phytochemistry*, 6(5): 2317-2319.
- Mehta, R.** (2017). History of Tomato (Poor Man's Apple). *Journal Humanities Social Science (IOSR-JHSS)*, Vol-22, Issue 8: 31-34.
- Naqvi, S.D.Y., Tesfalem, A., Tesfazghi, B., Asfeha, G. and Mangesteab, R.** (2014). Survey on economical important fungal diseases of tomato in Sub-Zoba Hamemalo of Eritrea. *Review of Plant Studies*, 1(2): 39-48.
- Pandey, K.K., Pandey, P.K., Kalloo, G. and Banerjee, M.K.** (2003). Resistance to early blight of tomato with respect to various parameters of disease epidemics. *Journal of General Plant Pathology*, 69(6): 364-371.
- Peralta, I.E., Knapp, S. and Spooner, D.M.** (2005). New species of wild tomatoes (*Solanum* section *Lycopersicon*: Solanaceae) from northern Peru. *Systematic Botany*, 30:424-434.
- Rani, S., Singh, R., Gupta, S., Dubey, S. and Razdan, V.K.** (2015). Identification of resistant sources and epidemiology of early blight (*Alternaria solani*) of tomato. *Indian phytopathology*. 68(1): 77-92.
- Rao, S., Danish, S., Keflemariam, S., Tesfagergish, H., Tesfamariam, R. and Habtemariam, T.** (2016). Pathological survey on disease incidence and severity of major diseases on Tomato and Chilli crops grown in Sub Zoba Hamelmallo, Eritrea. *International Journal of Research Studies in Agricultural Sciences*, 2(1): 13-24.

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Soni, R., Tanwar, V.K. and Yadav, S.M. (2017). Survey and Screening of Genotypes against *Alternaria solani* caused early blight of tomato in southern part of Rajasthan. *Chemical Science Review Letters*, 6: 1483-1489.