

RESEARCH ARTICLE

Effect of some physiological parameters on the growth of *Fusarium oxysporium* f. sp. *carthami*

■ ANJALI B. SHINDE AND B.V. HALLALE

SUMMARY

The growth of pathogen *i.e.* *Fusarium oxysporium* f.sp.*carthami* causing wilt disease of safflower. *In vitro*, studies were carried out of the nutritional requirements of the pathogen for different carbon and nitrogen sources and different levels of pH and temperatures on the growth and sporulation of pathogen. The maltose was found to be the best source of carbon for the growth of pathogen and maximum macro-conidial production was noted in starch and manitol. Among nitrogen sources the urea was best organic source for the growth of pathogen. Whereas $MgNO_3$ was the best inorganic source of nitrogen followed by KNO_3 . Conidial production was totally absent in $(NH_4)_2SO_4$. The most suitable pH level for the growth of fungus was 5.0 to 7.0. The growth of *Fusarium oxysporium* was maximum at 25°C and 30°C temperature after 5 days of inoculation.

Key Words : *Fusarium oxysporium*, Safflower, Carbon, Nitrogen, pH, Temperature

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