

In vitro efficacy of different botanicals, bioagents, chemicals against *Xanthomonas axonopodis* pv. *citri* by turbidimetric method

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ARTICLE INFO

Received : 20.02.2015
Revised : 24.07.2015
Accepted : 09.08.2015

KEY WORDS :

Xac, Citrus canker, Botanicals, bioagents, Turbidimetric method, Spectrophotometer

ABSTRACT

Citrus canker disease of acid lime caused by *Xanthomonas axonopodis* pv. *citri* is an important disease in many parts of MH region. The bacterium infects the twigs, petioles, fruit stalks and fruits. Action of botanicals, bioagents, chemicals against *Xac* was studied by turbidimetrically at 24hrs. intervals upto 96hrs by spectrophotometer at 620nm. At 96 hours of incubation least bacterial growth (0.232OD) was exhibited in copper-oxychloride + streptomycin sulphate (0.2% + 200ppm) followed with copper-oxychloride + streptomycin sulphate (0.2% + 100ppm) 0.266 OD statistically superior over all treatments. Similar findings are observed after 24h growth in copper oxychloride + streptomycin sulphate (0.2% + 200ppm) followed with copper-oxychloride + streptomycin sulphate (0.2% + 100ppm) (0.303, 0.306, respectively). In botanicals and bioagents neem seed kernel extract (5%) was effective in reducing the growth of bacteria with 0.446 OD at 96 h followed by *Pseudomonas fluorescence* 1×10^8 cell and *Bacillus subtilis* 1×10^8 cell with 0.506 and 0.486 OD, respectively.

How to view point the article : Abhang, P.B., Totawar, M.V. and Brahmane, P.R. (2015). *In vitro* efficacy of different botanicals, bioagents, chemicals against *Xanthomonas axonopodis* pv. *citri* by turbidimetric method. *Internat. J. Plant Protec.*, **8**(2) : 241-244.

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