

RESEARCH ARTICLE

Physiological and bio chemical modification through bio inducer in tube rose infected with root knot nematode (*Meloidogyne incognita*)

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SUMMARY

The main aim for this study is to investigate on physiological and bio chemical modification through bio inducer in tube rose infected with root knot nematode, *Meloidogyne incognita*. Two pot culture experiments was carried out during 2015-2018 for assessment of bio chemicals changes induced by selected bio stimulant in tube rose infected with root knot nematode, *M. incognita*. In this study bulbs of tuberose var. prajwalwas planted at the rate of 1 bulb/pot with three replications and each replication consist of two pots. The juveniles (1juvenile/g of soil) was inoculated under controlled condition. The pots wastreated with ascorbic acid - corm soaking (24hrs)+ foliar spray (45 and 90 DAP) with various concentration viz.,250 ppm,500 ppm and 1000 ppm, Humic Acid - corm Soaking (24hrs)+ foliar spray (45 and 90 DAP) 1,2 and 3 per cent, salicylic acid - corm soaking (24hrs)+ foliar spray (45 and 90 DAP) 50 ppm, 100ppm and200 ppm, monocrotophos 0.2% - corm soaking (24hrs)+ foliar spray (45 & 90 DAP). Field experiments was conducted at farm of RRS, Paiyur during the period of 2016-2017. The best performed five treatments were callout from pot culture experiments I and II and further experiment was conducted at field conditions in split plot (3mX3m) with three replications. The standard cultural practices were followed as recommended by Tamil Nadu Agricultural University,Coimbatore. The observation viz., Stalk length (Cm), Inflorescences length (cm), Stalk weight (g), Total number of florets, Nematode population in root(5g), Nematode population in soil (200cc), gall index and yield were recorded.

Key Words : Physiology, Biochemical modification, Bioinducer, Root knot nematode, Tuberose

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