



Spatial variability of mungbean yellow mosaic virus (MYMV) in North Eastern Karnataka

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ARTICLE INFO

Received : 26.07.2017

Revised : 09.09.2017

Accepted : 21.09.2017

KEY WORDS :

MYMV, Mungbean, *Kharif*, PDI (% disease incidence), Survey, NEK, GPS

ABSTRACT :

Mungbean a protein rich legume has high demand but, supply is hindered due to poor production and productivity due to mungbean yellow mosaic virus (MYMV) disease. The North Eastern Karnataka being the pulse bowl of the state annually suffers from MYMV incidence. In order to control this whitefly transmitted virus, knowledge and information about its distribution across the region is essential to formulate the strategies of management. In the present study a roving survey was undertaken to know the incidence and present status of MYMV in mungbean among the six districts of North Eastern Karnataka (NEK) region *viz.*, Bellary, Bidar, Koppal, Kalaburgi, Raichur and Yadgir during *Kharif* 2016, when the crop was at 30 to 45 days old. The GPS position and MYMV incidence in each location were recorded and used to develop GIS map to know the spatial distribution of MYMV in different talukas of six districts. The results showed varied incidence of MYMV across many locations. Highest disease incidence was recorded at Koppal district with 33.33 per cent followed by Bellary (21.45 %), Raichur (19.70 %), Kalaburgi (17.44 %) and Yadgir (15.76 %) districts. The least disease incidence was noticed at Bidar district (5.66%). Higher MYMV incidence in Koppal was mainly due to favourable weather for multiplication and survival of whitefly population which spreads the virus. The virus inoculum in summer crop and weed hosts were found acting as source of inoculum. Findings of the study revealed that higher incidence in Koppal would provide suitable disease pressure for screening of genotypes developed against the MYMV infection and also develop management strategies in each district based on the disease incidences recorded.

How to view point the article : Meti, Meghashree, Kenganal, Mallikarjun, Sunkad, Gururaj, Aswathanarayana, D.S. and Shanwad, U.K. (2017). Spatial variability of mungbean yellow mosaic virus (MYMV) in North Eastern Karnataka. *Internat. J. Plant Protec.*, **10**(2) : 420-428, DOI : 10.15740/HAS/IJPP/10.2/420-428.

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