Screening of rice germplasm against root-knot nematode (Meloidogyne graminicola)

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ABSTRACT: Some of the rice germplasm was obtained from Pantnagar Agriculture University and SKUAST-K, Shalimar to screen against M. graminicola. The seedlings were maintained in nursery during the end of June 2009 and then transplanted after 28 days during the end of July 2009. Before the transplanting of seedlings to the respective buckets were filled with infested soil (2kg/bucket) of M. graminicola @ 3 larvae/g of soil. After 9 days of transplantation the transplanted germplasm depotted and observed for total no. of root knot formation in roots as well as total no. of larvae /gm of soil. Out of 73 varieties screened it was found that IR-24, Sfeed Cheena, VL-Dhan-39, VL Dhan-206, UPR-1796, Pant Dhan-6, UPRI-2005-5, UPRI-93-63-2, UPR-2551-4-2-1, UPR-1598-6-2, Vivek Dhan-62, Surju-52, UPR-1797-17-2, UPRI-95-45, NDR-3026-3-IR, UPRI98-33, and Govind were resistant of M. graminicola and following were found to be Moderately resistant varieties Narendra-359, Ratna Prasad, Pusa Basmati, Type-3, Nikah Cheena, Barkat Cheena, IR-58025-A, Basmati-370, Saket-4, Hansraj, Pant Dhan-11, UPRI89-6, Jaya UPR2257-17-12, VLDhan 61, Mahamaya, Kalanamak, KASlurt Kranti, Pant Dhn-4, Pussa-44, Pussa Sughanda-2, UPRI 2000-27, Manhar, Pant Dhan1-0, UPRI-1598-6-2, VL Dhan-163, UPR-1796-13-1, and susceptible varieties were Kudrat Cheena, UPR-1778-16-2-2, Yamini, Pant Dhan-16, VL Dhan-211, UPR-2084-60-1-1, Pant Sughanda-15, Chini Sgar, Tarori Basmati, Pant Dhan-12, Pusa Sughanda-3, Tilak Chandan, Vivek Dhan, Basmati-386.

Key Words: Rice, Meloidogyne graminicola, highly resistant, highly susceptible.