J Plant Physiol Pathol 2018, Volume 6
DOI: 10.4172/2329-955X-C2-018

Emerging diseases and their management in vegetable crops

AN Tripathi
Indian Institute of Vegetable Research, India

India is the second largest producer of vegetable in the world after China. Every year diseases cause economic losses (8-23%) and also post-harvest losses (20-25 %) in vegetable crops. In the recent past, with changes in the farming practices, abrupt weather climate, and the introduction of new varieties/hybrids/germplasm exchange are considered major factors for emergence and outbreak of new pathogens/diseases. Profiling, documentation, and quantification of the importance of vegetable diseases and their insect vectors are essential for better understanding of vegetable crop health management. Emerging diseases in vegetable crops like tomato (early and late blight, *fusarium* and bacterial wilts, leaf curl and tomato spotted wilt viruses, root-knot nematodes), chilli and peppers (*pepper leaf curl virus*, anthracnose, Phytophthora blight and bacterial wilt), brinjal (little leaf, bacterial wilt, phomopsis blight and Alternaria leaf spot), cucurbits (downy mildew, gummy stem blight, *fusarium* wilt, fruit rot, anthracnose and *Cercospora* leaf spot), okra (enation leaf curl virus, yellow vein mosaic and *Cercospora* leaf spot), pea (powdery mildew, *fusarium* wilt, rust and root rot), French bean (Sclerotinia stem rot) cowpea/Dolichos bean (anthracnose, Sclerotinia stem rot, bacterial blight and bean common mosaic), cole crop (black rot, Alternaria blight, downy mildew). Indiscriminate and non-judicious uses of synthetic pesticides by farmers in vegetable production, develop pesticide resistance and harmoligosis in pathogens/insect vectors and also adversely affects beneficial insect and microbes. With this background, disease resistant breeding and harnessing potential of bio-agents (BCAs) and microbes are the economically viable option for disease management of pathogens/diseases in vegetable crops.

antripathi_patho@rediffmail.com