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## Food security through plant health management

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Food security precisely means availability of food to everyone in all times to come. Food Security can be defined as "when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active healthy life (FAO, 2003). Climatic changes, ever-rising population leading to land crunch, and pests, and diseases pose serious threat to food security. Plant diseases are the biggest threat to food security. Several diseases in the past such as late blight of potato in 1845 in Ireland, coffee rust in Sri Lanka in 1876, Brown leaf spot of rice in 1942 in India caused untold miseries, and changed the history of mankind. Worldwide, pests cause 40% reduction in yield. Monetarily India loses INR 1, 40,000 crore rupees annually due to pest and diseases. To ensure sustained productivity from limited land, it is imperative to employ innovative technology for food production commensurate to meet the food requirement of ever-growing population, and modern know-how on plant health from plant health clinic, which plays a vital role in mitigating losses, assuring food security by providing timely diagnosis and rendering necessary prescription. However, PHC has yet to gain public attention since their existence is insignificant as compared to human clinics. Innovative technology for higher yield such as host resistance, biotechnology, organic farming amongst others, may be adopted but, plants definitely need protection from onslaught of pests, which warrants creation and promotion of well-organized, plant clinic modeled on human clinic, which may provide timely diagnostic and advisory support against diverse ailments free of cost. It is in this backdrop, walk-in-clinics were launched in India too and plant clinics exist in most of the agricultural universities in India, yet they have to be more organized like clinics for humans. National Horticulture Mission (NHM) in India has come up in a big way towards creation of 128 plant clinics in public and private sector. Let other countries follow suit. A well-organized clinic with required infra-structure, world-class diagnostic lab, trained and experienced pathologist, entomologist, agronomist, sitting under one roof may provide right diagnosis and remedial measures and farmers need not move from pillar to post. The practitioner, however, must have insight to the so called *'Materia Medica'* of plant diseases/pests and good knowledge of pesticides and integrated pest management. The clinics encourage integrated pest management and discourage overdependence on pesticides to save biodiversity. However, under severe outbreak pesticides may be employed for providing respite. Information may also be provided online towards diagnosis and remedies on plant pests and knowledge to students/teachers & farmers through web portal as are provided through www.xsgrowth.com free of cost by Dr Srivastava. Plant health clinics not only provide diagnostic and advisory support but job opportunities too and plant doctors get same respect as physicians in the society. Impact of such clinic has been phenomenal in ushering productivity. Let us join the cause and provide healing touch to the growers by empowering them with knowledge to mitigate losses and boost food security. Establishment of plant clinics at sub-division level is likely to revolutionize plant healthcare, harnessing higher yield, and boosting food security.

### Biography

M P Srivastava is former Director Planning & Head Plant Pathology, CCS Haryana Agricultural University. He has been honored with "IPS Recognition Award 2014" in recognition of his contribution to the growth of Indian Phytopathological Society (IPS), and more importantly services rendered towards society in mitigating crop losses due to plant pests. He is a distinguished plant pathologist with 50 years of experience, recognized nationally and internationally for his contributions on post-harvest diseases, multiple resistance in rice, and on technology/knowledge transfer, plant health clinic and fungicides. He is credited with his popularization of Plant Clinic and application of plant pathology knowledge in towards sustainable agriculture.

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