CLIMATE CHANGE
IMPACTS ON FOOD AND NUTRITION SECURITY

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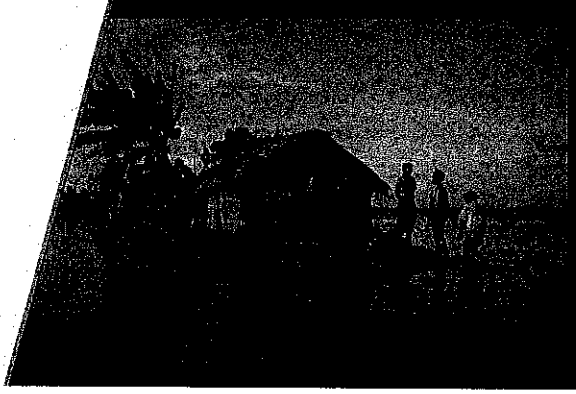
ABSTRACTS



KEYNOTE PRESENTATION

Integrated Control of Diseases: A Way Forward for Quality Production of Fruits and Vegetables

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Integrated disease management (IDM) intends to manage plant diseases by assembling diverse approaches, depending on the pathosystem, the geographical location and the season. IDM carefully considers all available plant protection methods and subsequent integration of appropriate measures that keep the use of plant protection products to economically and ecologically justified levels, by minimising the risks for human health and the environment. The current review provides several examples of IDM, with particular reference to the control of soilborne pathogens on vegetables and of postharvest diseases on fruit. Soil management, to attain soil health, is fundamental for IDM. The use of healthy or disinfected seed is a very useful practice for IDM. Rapid and reliable diagnostic tools, such as qPCR and LAMP, to early detect soilborne and seedborne pathogens, allow a rational and efficient choice of the management options. Attempts to control soilborne pathogens include genetic resistance, a variety of cultural practices, and the use of chemical and biological control, by using antagonists. Many strategies have been developed to control postharvest decays on fruit, including biocontrol agents, thermotherapy and use of natural products. None of these methods used alone provided satisfactory levels of postharvest disease control, although some of them were useful when applied in combination, resulting in additive or even synergistic levels of decay control, in an integrated vision of disease management. Adopting preventative and combined methods of disease management has become the choice for the control of soilborne and postharvest pathogens.