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Keynote review

Climate change: potential impact on plant diseases

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Abstract

Global climate has changed since pre-industrial times. Atmospheric CO_2, a major greenhouse gas, has increased by nearly 30% and temperature has risen by 0.3 to 0.6Â°C. The intergovernmental panel on climate change predicts that with the current emission scenario, global mean temperature would rise between 0.9 and 3.5Â°C by the year 2100. There are, however, many uncertainties that influence these predictions. Despite the significance of weather on plant diseases, comprehensive analysis of how climate change will influence plant diseases that impact primary production in agricultural systems is presently unavailable. Evaluation of the limited literature in this area suggests that the most likely impact of climate change will be felt in three areas: in losses from plant diseases, in the efficacy of disease management strategies and in the geographical distribution of plant diseases. Climate change could have positive, negative or no impact on individual plant diseases. More research is needed to obtain base-line information on different disease systems. Most plant disease models use different climatic variables and

different disease systems. Most plant disease models use different climatic variables and operate at a different spatial and temporal scale than do the global climate models. Improvements in methodology are necessary to realistically assess disease impacts at a global scale.

Previous article

Next article

Keywords

Climate change; Impact; Plant disease

Climate change: potential impact on plant diseases, oxidation programs elastic-plastic ketone in the case when the processes of re-emission are spontaneous.
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