SYMPOSIUM ON WATER STRESS: PATHOGENIC INDUCTION AND INFLUENCE ON METABOLISM AND DISEASE DEVELOPMENT

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Introductory Remarks

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All plants periodically undergo water stress, even with an optimal water management program. The effects of such stress may range from a slight decrease in total water potential only instrumentally detectable to permanent wilting and death by desiccation. Even a mild water deficit has a deleterious effect on plant metabolism, an effect which can extend beyond the stress period and be outwardly manifested in portions of the plant at a distance from the original site of stress. Taken together over the growing season, the resultant inhibition of plant growth due to an inadequate water supply can be responsible for a significant loss in productivity.

Fundamental knowledge about the role of plant pathogens in inducing water stress and its physiological consequences to the plant is only now being elucidated and much still remains to be learned. How do pathogens affect the complex and ever-changing patterns and rates of water flux in the host? What sorts of water stress can they produce and of what importance are such stresses to the over-all well-being of the plant? In turn, how are pathogens affected by water stress in both their parasitic and saprophytic phases? In this symposium the speakers will address themselves to these questions in their discussions of the water relations of plant pathogens and diseased plants and the metabolic consequences of water stress to the plant.

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