about the book . . .

This vast, comprehensive reference covers the remarkable versatility of plants in adapting to environmental change—emphasizing the unpredictable nature of plant behavior under stress and in relation to complex interactions of biological pathways.

Written by over 40 international authorities, ***Plant Responses to Environmental Stresses*** assesses the key role of phytohormones in regulating and modifying plant development...discusses reversible and nonreversible modifications of the phenotype...describes modulation of genome organization and changes in copy number of certain repetitive DNA families...explores above-ground parameters such as light intensity, light quality (wavelength), photoperiod, CO_2 concentration, relative humidity, temperature, pollution, and pathogens...examines below-ground parameters such as water availability, soil compactness, temperature, pathogens, symbiotic organisms, and concentrations of salt, oxygen, and mineral nutrients...illustrates the transmission of "information" within plants by way of minerals, photosynthates, and water...evaluates mutability of bacteria in response to stress, oxidative stress and its effect on mutation enhancement, and stress viewed from reductionist or holistic perspectives...reviews plant responses to phosphate and oxygen deprivation, desiccation, mineral-uptake dysfunction, and flooding...and more.

This up-to-the-minute resource is extensively referenced, with **over 3800 bibliographic citations.** ***Plant Responses to Environmental Stresses*** is ideal for plant, crop, soil, and environmental scientists; plant and crop physiologists; botanists; agronomists; agriculturists; horticulturists; biochemists; foresters; plant and crop growers; and upper-level undergraduate, graduate, and continuing-education students in these disciplines.

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