DESCRIPTION

Ultraviolet-B (UV-B) is electromagnetic radiation coming from the sun, with a medium wavelength which is mostly absorbed by the ozone layer. The biological effects of UV-B are greater than simple heating effects, and many practical applications of UV-B radiation derive from its interactions with organic molecules. It is considered particularly harmful to the environment and living things, but what have scientific studies actually shown?

_UV-B Radiation: From Environmental Stressor to Regulator of Plant Growth_ presents a comprehensive overview of the origins, current state, and future horizons of scientific research on ultraviolet-B radiation and its perception in plants. Chapters explore all facets of UV-B research, including the basics of how UV-B's shorter wavelength radiation from the sun reaches the Earth's surface, along with its impact on the environment's biotic components and on human biological systems. Chapters also address the dramatic shift in UV-B research in recent years, reflecting emerging technologies, showing how historic research which focused exclusively on the harmful environmental effects of UV-B radiation has now given way to studies on potential benefits to humans. Topics include:

- UV-B and its climatology
- UV-B and terrestrial ecosystems
- Plant responses to UV-B stress
- UV-B avoidance mechanisms
• UV-B and production of secondary metabolites

• Discovery of UVR8

Timely and important, *UV-B Radiation: From Environmental Stressor to Regulator of Plant Growth* is an invaluable resource for environmentalists, researchers and students who are into the state-of-the-art research being done on exposure to UV-B radiation.

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