

Download Responses Of Plant To Uv B Radiation

Inevitably terrestrial plants absorb UV-B when exposed to solar radiation. The spectral balance between PAR and UV-B is discussed in several chapters. The responses of plants and ecosystems from the Antarctic and Arctic to enhanced solar UV-B radiation as a consequence of the hole in the ozone layer are considered in some detail. In addition the papers in the book discuss the problem of how responses of plants to UV-B radiation interact with other environmental factors. Low levels of UV-B light (280-315 nm) also elicit photomorphogenic responses in plants (Frohnmeier and Staiger, 2003; Ulm and Nagy, 2005; Jenkins, 2009; Jiang et al., 2012; Heijde and Ulm, 2012), but until recently the identity of the UV-B photoreceptor remained a mystery. This article will summarise photomorphogenic responses to UV-B radiation, and their regulation by the UV-B photoreceptor UVR8. The research in this book covers papers on a great number of research projects on the responses of plants and crops of natural terrestrial ecosystems, of agro-ecosystems, and of aquatic ecosystems, to enhanced solar UV-B as a result of stratospheric ozone depletion. Over the last three decades, the increase in the amount of ultraviolet (UV) radiation reaching Earth's surface has drawn attention of the researchers. Among UV-A (400–315 nm) and UV-B (315–280 nm) radiation, UV-B plays a major deleterious role affecting biota.