

Response of Chloroplast Structure to Photodynamic Herbicides and High Oxygen

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Response of chloroplast on the structural level to photodynamic herbicides and high oxygen concentration was compared with symptoms of chloroplast senescence. Based on the present results and those known from the literature a general pattern of response was proposed: the action of most of environmental factors induces the oxidative stress and often gives similar symptoms of structural damage and dysfunctions independent of the primary stressing factor. These alterations consist mostly in swelling of thylakoids, disruption of chloroplast membranes, intensive plastoglobuli accumulation, photodestruction of pigments and inhibition of photosynthesis.