

ŁUCJA KOWALEWSKA, AGNIESZKA MOSTOWSKA

Zakład Anatomii i Cytologii Roślin

Instytut Biologii Eksperymentalnej i Biotechnologii Roślin

Wydział Biologii

Uniwersytet Warszawski

Miecznikowa 1, 02-096 Warszawa

DAY AND NIGHT IN PLANT LIFE

Summary

Life of organisms, their physiological responses and developmental processes are determined by day and night length which varies with seasons and is a driving force of the biological clock. The photomorphogenic processes are influenced by light intensity, quality and direction. Different photomorphogenic processes, such as seed germination, flowering and phototropism induced by the relative day and night length require absorption of light by specialized photoreceptors such as phytochromes, cryptochromes, phototropins. Complex interaction network between them is involved in regulation of plant development by light. The role of the photoreceptors in the regulation of plant growth and development is still under investigation. Many questions related with plant response on light intensity and quality should still be clarified: whether more light is better for plant, how plant copes with excessive amount of light, and whether artificial light is comparable with the solar one.