

식물생명공학과

초청세미나

Title: Plant responses to UV and visible radiation: photoreceptors and acclimation



강의 일정

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Abstract: Ultraviolet radiation (UV, 280 – 400 nm) is an intrinsic component of the electromagnetic spectrum that exerts multiple effects on plant growth, physiology and metabolism. Plants detect and respond to ambient levels of UV-B radiation (280 – 315 nm) through UV RESISTANCE LOCUS 8 (UVR8) and to UV-A/blue radiation (315 – 500 nm) through cryptochromes 1 and 2 (CRYs). Despite recent advances in our understanding of plant responses to UV radiation, there is a significant gap in knowledge on how UVR8 and CRYs orchestrate acclimation and photoprotection. During this talk, I will discuss key roles of UVR8 and CRYs in facilitating plant acclimation to UV exposure, shedding light on their individual and collaborative contributions. I will particularly explore how these photoreceptors regulate gene expression, modulate metabolite accumulation, and fine-tune photosynthetic performance to ensure plant resilience.