

UV4Plants Training School 2020 at Kiel University

In conjunction with the upcoming meeting of the UV4Plants Association a Training School will take place again. In this Training School basic methods in UV research with plants shall be introduced to young researchers. The aim is giving young scientists the competence of setting up experiments of good scientific practice. Therefore, the topics cover the range from evaluating the environmental radiation conditions to assessing the (damaging) effects on plant leaves.

Proper measurement of UV-B radiation and evaluating these measurements by the use of biological action spectra are essential to define experimental conditions. UV light sources are important means to expose plants in a controlled way. How much radiation and what spectral part is reaching sensitive targets within the leaf cells is determined by UV transmittance of the epidermis. Polyphenolics can act as UV screening pigments as well as antioxidants. They can be analysed by HPLC-MS. Among the most common detrimental effects of UV-B radiation are formation of reactive oxygen species (ROS) and of thymine dimers in the DNA as well as damage to the photosynthetic apparatus.

Different topics, which we could cover in the school, are listed below. In order to provide the best selection for your interests, please, mark all themes you would like to attend in the school. In case, please, also add a topic, which you would like to hear about but which is still missing.

Teaching themes	I'm well informed	I have no need	Could be interesting	I'd like to learn more
Measurement of UV-B radiation				
Using action spectra to calculate UV doses				
Light sources for UV-B treatment				
Determination of epidermal UV screening				
Acclimation responses to UV				
Analysis of polyphenolics by HPLC-MS				
Measurement of ROS				
Measurement of thymine dimers in the DNA				
Measurement of damage to the photosynthetic apparatus by chlorophyll fluorescence				

Below you may add your wishes:

Please, also indicate how much we can count on you:

I'm seriously planning to attend the school

I will only attend if sufficient themes are addressed in which I'm interested

My name:

University:

Thank you for providing this valuable information!

On behalf of the organizers,

Frauke Pescheck and Wolfgang Bilger