

<b>Module number</b>	<b>EM9</b>
<b>Module name</b>	<b>Plant compound profiling and food quality</b>
<b>Program of Study</b>	MSc elective module
<b>Offered</b>	Once a year, winter semester
<b>Module coordinator</b>	Prof. Dr. Karin Schwarz
<b>Module advisor</b>	Prof. Dr. Karin Schwarz
<b>Courses and teachers</b>	<p><b>Lecture:</b> Pre- and post-harvest influences on the quality of vegetables and foods (Prof. Dr. K. Schwarz by Dr. K. Palani and B. Schulze and Prof. J. Gerendas)</p> <p><b>Seminar:</b> Plant and food quality (Prof. Dr. K. Schwarz by Dr. K. Palani, B. Schulze and Prof. J. Gerendas)</p> <p><b>Exercise:</b> Analysis of plant and food components (Prof. Dr. K. Schwarz by Dr. K. Palani, B. Schulze and Prof. J. Gerendas)</p>
<b>Prerequisites</b>	Basic understanding of plant physiology; chromatographic and spectroscopic methods
<b>Language</b>	English
<b>Module capacity on campus students</b>	10
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<b>Registration</b>	From September 1 <sup>st</sup> At the secretary's office of Food Technology, CAU, Heinrich-Hecht-Platz 10, room 117
<b>Course types (classroom/ total workload)</b>	Lecture (15 h /45h), seminar (15h/45h), practical course (30 h/90h)
<b>Schedule</b>	Weekly and block courses
<b>Grading</b>	Practical report of the course: 50% K. Schwarz Seminar presentation: 50% K. Schwarz
<b>ID-card</b>	Required for exams
<b>European Credit Points</b>	6
<b>Module Objectives</b>	Understanding of nutritional and physiological processes of plants and their influence on plant compounds. Evaluation of abiotic factors (irradiation, fertilization) and storage conditions influencing the plant and food quality. Application of online data bases for agricultural and food research. Discussion of scientific papers.
<b>Contents</b>	Understanding and application of profiling technologies and methods (metabolomics): e.g. mass spectrometry, NMR. Quantification of plant compounds (e.g. HPLC, GC).
<b>Taught Skills</b>	Professional, practical and methodical qualifications
<b>Course Materials</b>	to be announced at the beginning of the module