



## Master Thesis Announcement

### “Identification and Quantification of anthocyanins in red and blue wheat genotypes”



#### Background:

Appealing color of food is an important quality trait and artificial food colorants are largely rejected by consumers. Therefore, coloring of food with natural pigments and plant extracts is focused in research. Secondary plant metabolites, such as anthocyanins from various fruit and vegetable sources are a main source of these extracts. Anthocyanins are naturally red or blue and change their color depending on the pH value. Bakery products can also benefit from food coloring and anthocyanins can add beneficial value to these products. Several wheat cultivars are on the market which contain either red/purple anthocyanins in the pericarp layer or blue anthocyanins in the aleuron layer. In 2018, BSc students crossed red and blue wheat genotypes in a self-organized FoLL Project (FoLL Farbweizen), of which they developed a small breeding program whose selected lines are grown on Reinshof station in 2020/21. The aim of the MSc thesis is to analyze anthocyanin structure and concentration by high performance liquid chromatography (HPLC) and compare anthocyanin composition in parental genotypes and selected progenies. Further tests on thermostability of anthocyanins during baking processes can be implemented. The thesis is scheduled for summer semester 2021.

If you are interested in this hands-on interdisciplinary project please contact:

Quality and Sensory of Plant Products

or Plant Breeding Methodology

Dr. Tobias Pöhl  
[tobias.poehl@uni-goettingen.de](mailto:tobias.poehl@uni-goettingen.de)  
0551 39-5541

Dr. Antje Schierholt  
[aschier@gwdg.de](mailto:aschier@gwdg.de)  
0551-3024379