

Anna Kolton , PhD

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Consultation hours: Wednesday 12:00-13:00



Research interest:

- plant nitrogen management - nitrate storage, regulation of NR and NiR activity, under the influence of various factors
- vegetable crop quality - after harvest and after storage, under the influence of various factors (light, fertilization, genotype - varietal differences, iodine feeding)
- antioxidative system - functioning, testing of its various elements
- reactions to stress - hypoxia, chilling, light pollution at night, the impact of urban conditions on the trees
- plant photobiology - include research using LED

Research experience:

Visiting Scholar

02.2016-04.2016 – 3-month internship at Stavanger University with prof. Cathrine Lillo (for this purpose awarded the scholarship of the Rector of the University in Krakow)

PhD

2010 – PhD, Univ. of Agriculture in Krakow, Effect of nitrogen form and different light conditions on selected parameters of nitrogen metabolism connected with quality of sweet pepper ‘Spartacus F₁’ fruits grown on rockwool

Professional profiles:

Research Gate: https://www.researchgate.net/profile/Anna_Kolton

Google Scholar: <https://scholar.google.pl/citations?user=945mQnMAAAJ&hl=pl&oi=ao>

List of publications:

1. Wojciechowska R., Długosz-Grochowska O., Kolton A., Żupnik M. 2015. Effects of LED supplemental lighting on yield and some quality parameters of lamb’s lettuce grown in two winter cycles. *Scientia Horticulturae* 187: 80–86,
2. Smoleń S., Wierzbińska J., Sady W., Kolton A., Wiszniewska A., Liszka-Skoczylas M. 2015. Iodine biofortification with additional application of salicylic acid affects yield and selected parameters of chemical composition of tomato fruits (*Solanum lycopersicum* L.). *Scientia Horticulturae* 188: 89–96,
3. Augustynowicz J., Gajewski Z., Kostecka-Gugała A., Wróbel P., Kolton A., 2016. Accumulation patterns of Cr in *Callitriche* organs – qualitative and quantitative analysis, *Environmental Science and Pollution Research*, 23(3), 2669-2676,
4. Wiszniewska A., Nowak B., Kolton A., Sitek E., Grabski K., Dziurka M., Długosz-Grochowska O., Dziurka K., Tukaj Z. 2016. Rooting response of *Prunus domestica* L. microshoots in the presence of phytoactive medium supplements. *Plant Cell Tiss Organ Cult* 125:163–176,
5. Długosz-Grochowska O., Kolton A., Wojciechowska R., 2016. Modifying folate and polyphenol concentrations in Lamb’s lettuce by the use of LED supplemental lighting during cultivation in greenhouses. *Journal of Functional Food* 26: 228-237,

6. Wojciechowska R., Kołton A., Długosz-Grochowska O., Knop E., 2016. Nitrate content in *Valerianella locusta* L. plants is affected by supplemental LED lighting. *Scientia Horticulture* 211: 179-186,
7. Cocetta G., Casciani D., Bulgari R., Musante F., Kołton A., Rossi M., Ferrante A. 2017. Light use efficiency for vegetables production in protected and indoor environments. *Eur. Phys. J. Plus* (2017) **132**: 43,
8. Creighton M.T., Kołton A., Kataya A.R.A, Maple-Grødem J., Averkina I.O., Heidari B., Lillo C. 2017. Methylation of protein phosphatase 2A – influence of regulators and environmental stress factors. *Plant, Cell & Environment*, 40: 2347-2358,
9. Baran A., Gruszecka-Kosowska A., Kołton A., Jasiewicz C., Piwowar P. 2018. Content and health risk assessment of selected elements in the Yerba mate (*Ilex paraguariensis*, St. hillaire). *Human and Ecological Risk Assessment: An International Journal*, DOI: 10.1080/10807039.2017.1406304, 24(4): 1092-1114,
10. Wiszniewska A., Muszyńska e., Kołton A., Kamińska I., Hanus-Fajerska E. 2019. In vitro acclimation to prolonged metallic stress is associated with modulation of antioxidant responses in a woody shrub *Daphne jasminea*. *Plant Cell, Tissue and Organ Culture (PCTOC)*, 139: 339-357