

CHRIS BLOK



Background: Researcher at Wageningen University & Research, Greenhouse Horticulture with thirty plus years of professional research on soilless cultivation in the greenhouse horticultural industry with papers, scientific articles and patents on growing media and irrigation technology. Present focus on innovation with (conglomerates of) private companies for recirculation of nutrients (ion specific control); resilient growing (enhancing functional groups); circular fertilisers (including organic fertilisers) and circular growing media. Specialties: Rooting media quality measurements, method development, propagation, irrigation and fertigation strategies.

Motivation: Contribute to:

1. The use of clear standards for growing media analysis in research and industry.
 2. The acceptance and application of methods in the wider contexts of research and industry.
- The wider context being the application of growing media in the production of food and ornamentals, in order to reduce emissions and increase area efficiency using circular and renewable materials.

Spearheads could be:

- The joint and timely planning of the bi-annual symposium on Growing Media, Composts and Analysis for global exchange of thoughts.
- Stimulating contact between industry and university research in networks, e.g. a young PhD and a science group leader network.
- Virtual short term work groups on relevant topics such as irrigation/recirculation promotion; organic fertilisers; micro-organisms.
- A members only web access to:
 - A (dynamic) glossary of terms
 - A library of public methods and instruction videos
 - An instruction on minimal demands for experiments and the reporting thereof

Examples of relevant publications:

Blok, C.; Baumgarten, A.; Baas, R.; Wever, G.; Lohr, D. Analytical methods used with soilless substrates. In *Soilless culture. Theory and Practice*, Raviv, M.; Lieth, H.; Bar-Tal, A., Eds. Elsevier: Oxford, United Kingdom, 2019.

Blok, C., Jackson, B.E., Guo, X., de Visser, P.H.B. and Marcelis, L.F.M. (2017). Maximum Plant Uptakes for Water, Nutrients, and Oxygen Are Not Always Met by Irrigation Rate and Distribution in Water-based Cultivation Systems. *Front. Plant Sci.*, 11 April 2017 | <https://doi.org/10.3389/fpls.2017.00562>

Blok, C., Salm, C.V.D., Hofland-Zijlstra, J., Streminska, M., Eveleens, B., Regelink, I., Fryda, L., and Visser, R. (2017). Biochar for Horticultural Rooting Media Improvement: Evaluation of Biochar from Gasification and Slow Pyrolysis. *Agronomy* 2017, 7(1), 6; doi:10.3390/agronomy7010006