



## ANASTASIS CHRISTOU

### AGRICULTURAL RESEARCH OFFICER

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#### EDUCATION AND TRAINING

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- **PhD**, Cyprus University of Technology (2014)
- **MSc in Horticulture**, School of Biological Sciences, University of Reading, (2007)
- **BSc in Plant Protection**, Aristotle University of Thessaloniki, School of Agriculture (2006)

#### RESEARCH INTERESTS

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- Cellular and molecular responses of strawberry to salt, osmotic and heat stress
- Priming approaches for enhancing plant abiotic stress resistance
- Impacts and risk assessment of wastewater reuse for irrigation in the environment and public health
- Fate and plant uptake of micro-pollutants and compounds of emerging concern (CECs)
- Fate and public health impacts of antibiotic resistant bacteria and genes spread to the environment

#### ADDITIONAL INFORMATION

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##### Publications

- **Christou A**, Manganaris GA, Papadopoulos I, Fotopoulos V (2013). Hydrogen sulphide induces systemic tolerance to salinity and non-ionic osmotic stress in strawberry plants through modification of reactive species biosynthesis and transcriptional regulation of multiple defence pathways. *Journal of Experimental Botany* 64, 1953-1966.
- Fotopoulos V, **Christou A**, Manganaris GA (2013). Hydrogen sulfide as a potent regulator of plant responses to abiotic stress factors. In: *Molecular Approaches for Plant Abiotic Stress* (ed. Gaur RK, Sharma P). CRC Press, UK. pp. 353-373.
- Tanou G, Ziogas V, Belghazi M, **Christou A**, Filippou P, Job D, Fotopoulos V, Molassiotis A (2013). Polyamines reprogram oxidative and nitrosative status and the proteome of citrus plants exposed to salinity stress. *Plant Cell & Environment*. DOI: 10.1111/pce.12204.
- **Christou A**, Georgiadou EC, Filippou P, Manganaris GA, Fotopoulos V. (2014) Establishment of a rapid, inexpensive protocol for extraction of high quality RNA from small amounts of strawberry plant tissues and

other recalcitrant fruit crops. *Gene* 537, 169-173 (DOI: 10.1016/j.gene.2013.11.066).

- **Christou A**, Filippou P, Manganaris G, Fotopoulos V. (2014). Sodium hydrosulfide induces systemic thermotolerance to strawberry plants through transcriptional regulation of heat shock proteins and aquaporin. *BMC Plant Biology*, 14:42.
- **Christou A**, Eliadou E, Michael C, Hapeshi E, Fatta-Kassinou D. (2014). Assessment of long-term wastewater irrigation impacts on the soil geochemical properties and the bioaccumulation of heavy metals to the agricultural products. *Environmental Monitoring and Assessment*. DOI: 10.1007/s10661-014-3743-4.
- **Christou A**, Maratheftis G, Eliadou E, Michael C, Hapeshi E, Fatta-Kassinou D. (2014). Impact assessment of the reuse of two discrete treated wastewaters for the irrigation of tomato crop on the soil geochemical properties, fruit safety and crop productivity. *Agriculture, Ecosystems and Environment* 192, 104-114.
- **Christou A**, Manganaris GA, Fotopoulos V. (2014). Systemic mitigation of salt stress by hydrogen peroxide and sodium nitroprusside in strawberry plants via transcriptional regulation of enzymatic and non-enzymatic antioxidants. *Environmental and Experimental Botany* 107(0),46-54.
- Fotopoulos V, **Christou A**, Antoniou C, Manganaris GA. (2015). Hydrogen sulphide: a versatile tool for the regulation of growth and defense responses in horticultural crops. *Journal of Horticultural sciences and Biotechnology* 90(3), 227-234.
- **Christou A**, Antoniou C, Christodoulou C, Hapeshi E, Stavrou I, Michael C, Fatta-Kassinou D, Fotopoulos V. (2016). Stress-related phenomena and detoxification mechanisms induced by common pharmaceuticals in alfalfa (*Medicago sativa* L.) plants. *Science of The Total Environment* 557-558: 652-664.
- **Christou A**, Maratheftis G, Elia M, Hapeshi E, Michael C, Fatta-Kassinou D. (2016) Effects of wastewater applied with discrete irrigation techniques on strawberry plants' productivity and the safety, quality characteristics and antioxidant capacity of fruits. *Agricultural Water Management* 173, 48-54.
- Antoniou C, Savvides A, **Christou A**, Fotopoulos V. (2016) Unravelling chemical priming machinery in plants: the role of reactive oxygen-nitrogen-sulfur species in abiotic stress tolerance enhancement. *Current Opinion in Plant Biology* 33, 101-107.

#### Funder research projects

- **CrITERIA**-ERANETMET της ΔΕΣΜΗΣ 2009-2010 του ΙΠΕ, Άξονας V (Ανάπτυξη Διεθνούς Δικτύωσης και Συνεργασίας) - Πρόγραμμα Διεθνής Συνεργασία - Δράση "Συμμετοχή σε Κοινά Ευρωπαϊκά Προγράμματα
- **COST Action ES1403** (New and emerging challenges and opportunities in wastewater reuse- NEREUS) ( member of the submitting group)

#### Reviewer

- Agricultural Water Management, Journal of Environmental Chemical Engineering; Plant Growth Regulation; Agronomy for Sustainable Development; Gene; Agriculture, Ecosystems & Environment; Journal of Agricultural Science and Applications; Journal of Soils and Sediments;

#### Editorial board member

- Journal of Agricultural Science and Applications