

PROF. Bartolomeo DICHIO	
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#### SCIENTIFIC CURRICULUM

Born in Montescaglioso (Italy) on 10th of February 1967, he obtained his 1st degree in Agricultural Science at the University of Basilicata (Italy) in 1991. Three years later in 1994 he received his PhD in "Plant Productivity". Since 1995 he has worked as a scientist in the Pomology Section, Department of Crop Production at the University of Basilicata, where in 2004 he obtained the appointment of Associate Professor in Pomology.

From September 2000 to May 2001 (8 months) he worked with plant physiologists at HortResearch, Palmerston North, New Zealand. In 2006 he work for 2 months at Hortresearch institute in Te Puke, New Zealand

From 2007 to June 2016 Associated professor in General Arboriculture and Tree Crops (AGR/03); develop his teaching and research activity by the Department of Crop, Forestry and Environmental Science (DIPSISTEMI) of the Faculty of Agronomy at Università degli Studi della Basilicata. Since July 2012 he worked at the Department of European and Mediterranean Cultures: Architecture, Environment and Cultural Heritages (DiCEM) of Università degli Studi della Basilicata. In the 2013 he obtained eligibility for an Full Professorship in Pomology. From 2017 he is Full professor in General Arboriculture and Tree Crops (AGR/03) ;

#### Research Interests & Activities

1) Study of the ecophysiological mechanisms of the plants and development of sustainable management practices: canopy and soil management, plant fertilization methods, nutrient uptake and fruit quality

2) Water relations and irrigation management in fruit crop: optimization of plant water use efficiency, strategy of water deficit irrigation, irrigation scheduling and implementation of tools for supporting the irrigation decision, relation between irrigation volume and nutrient movement in the soil, fruit quality in relation to water transpiration flux. Reuse of waste water in fruit crop

3) Study of mechanisms involved in the physiological responses of fruit trees to water deficit. Evaluation of water-use efficiency in different species and their ability to exploit the soil-water resource. Water transport in plants and key characteristics of their water-conducting systems

4) Analysis of water and carbon footprints of crop products, sustainability, innovative orchard management focused to reduce external input and re-use resources (Environmental friendly and Low-energy practices).

He is author of more than 280 papers in both national and international refereed journals

*H Index* = 21 - Total citation more than 1569 (source Scopus 2017)

Other information on Scholar google

<https://scholar.google.it/citations?user=IPptn-YAAAAJ&hl=it>

<b>citation</b>	All	from 2011
Citazioni	2499	1212
Indice H	24	20
i10-index	45	30



### European Projects in the last years:

- LIFE14 AGROCLIMAWATER-“Promoting water efficiency and supporting the shift towards a climate resilient agriculture in Mediterranean countries. Ongoing
- LIFE14 CLIMATREE - “A novel approach for accounting & monitoring carbon sequestration of tree crops and their potential as carbon sink areas. Ongoing
- LIFE OLIVE-CLIMA - "Introduction of new olive crop management practices focused on climate change mitigation and adaptation" 2012-2017. Ongoing
- SITINPLANT "Sustainable Innovation Technology IN PLANT nursery process improving plant quality and safety (European Project FP7-SME-7, 2008-2011), financed by UE.
- Project European OLIVERO – The future of olive orchards on sloping land; scenario for production and natural resource conservation (2003-2005). Project No. QLK5-CT2002-01841

### COURSES:

General Fruit crop , General fruit growing and Nursery techniques

Fruit crop, ornamental plants, quality, and landscape

Greenscaping

### Other information

**Chair** of the Workgroup Water Supply and Irrigation - International Society of horticultural science (ISHS) 2015-2019

**Convener** of IX International Symposium on Irrigation of Horticultural Crops - Matera -2019

**Coordinator** of research commission for research development (Unibas-DiCEM)

### additional non-academic skills

Mentor of an successful family company that run the ornamental plant nurseries, garden scaping and Garden centers.

### Relevant recent papers

Montanaro, G., Tuzio, A.C., Xylogiannis, E., Kolimenakis, A., **Dichio, B.** 2016 Carbon budget in a Mediterranean peach orchard under different management practices. Agriculture, Ecosystems and Environment doi:10.1016/j.agee.2016.05.031

Tataranni, G., Santarcangelo, M.,Sofo, A., Xiloyannis C, Tyerman, S.D., **Dichio, B.** 2015 Correlations between morpho-anatomical changes and radial hydraulic conductivity in roots of olive trees under water deficit and rewatering. Tree Physiology Volume 35, 12, 10 : 1356-1365

Montanaro G. **Dichio B.**, Lang A., Mininni A. N., Nuzzo V., Clearwater M.J., Xiloyannis C., 2014. Internal versus external control of calcium nutrition in kiwifruit. Journal of Plant Nutrition and Soil Science 177: 819-830.

**B. Dichio**, A.M. Palese, G. Montanaro, E. Xylogiannis, A. Sofo (2014). A preliminary assessment of of water footprint components in a Mediterranean olive grove. ACTA HORTICULTURAE 671- 676.

M. Mazzeo, **B. Dichio**, M.J. Clearwater, G. Montanaro, C. Xiloyannis (2013). Hydraulic resistance of developing Actinidia fruit. ANNALS OF BOTANY 112. 197- 205.

**B. Dichio**, G. Montanaro, A. Sofo, C. Xiloyannis (2013). Stem and whole-plant hydraulics in olive (*Olea europaea*) and kiwifruit (*Actinidia deliciosa*). TREES 27. 183- 191.

A. SOFO, G. TATARANNI, A. SCOPA, **B. DICHIO**, C. XILOYANNIS (2012). Direct effects of *Trichoderma harzianum* strain T-22 on micropropagated GiSeLa6® (*Prunus* spp.) rootstocks. ENVIRONMENTAL AND EXPERIMENTAL BOTANY 76. 33-38.

G. Montanaro, **B. Dichio**, C. Briccoli Bati, C. Xiloyannis (2012). Soil management affects carbon dynamics and yield in a Mediterranean peach orchard. AGRICULTURE, ECOSYSTEMS & ENVIRONMENT 161. 46- 54.

G. Montanaro, **B. Dichio**, C. Xiloyannis, A. Lang (2012). Fruit transpiration in kiwifruit: environmental drivers and



predictive model. AOB PLANTS pls036.

A Sofo, S Manfreda, **B Dichio**, M Fiorentino, C Xiloyannis (2007). The olive tree: a paradigm for drought tolerance in Mediterranean climates. HYDROLOGY AND EARTH SYSTEM SCIENCES DISCUSSIONS 4. 2811- 2835.

**Dichio B**, Xiloyannis C, Sofo A, Montanaro G (2006) Osmotic adjustment in leaves and roots of olive tree (*Olea europaea* L.) during drought stress and rewatering. Tree Physiology 26: 179-185

**B. DICHIO**, C. XILOYANNIS, A. SOFO, G. MONTANARO (2007). Effects of post-harvest regulated deficit irrigation on carbohydrate and nitrogen partitioning, yield quality and vegetative growth of peach trees. PLANT AND SOIL 290. 127- 137.