

Resume

Diego S. Intrigliolo (09-02-1977)
 Tenured scientist
 Spanish Research Council (CSIC)
 Center for applied biology and soil sciences (CEBAS)
 E-mail: dintri@cebas.csic.es
 CEBAS, Campus Universitario Espinardo, 30100 (Murcia), Spain
 Tel + 34 968396331 Fax. + 34 968396213 Cell +34 656682880



Education and research experience

- 1995-2001 Bachelor of Science Agricultural Engineering. Polytechnic University of Valencia, Spain. Grade B.
- 2002-2005 PhD (Agriculture ecosystems and crop production). Polytechnic University of Valencia and Valencia Institute Agriculture Research (IVIA) Valencia, Spain. Dept. Natural Resources. Irrigation Unit. Advisor Dr. J.R. Castel Sánchez. PhD Thesis: "Interactive effects of deficit irrigation and crop load on growth, yield and fruit composition of Japanese plum trees". Grade A with honors.
- 2005-2006 Post-doctoral fellowship. IVIA, Valencia, Spain. Dept. Natural Resources. Irrigation Unit. Advisor J.R. Castel. Crop load and deficit irrigation effects on grapevine cv. Tempranillo.
- 2006-2008 Spanish Ministry of Science and Innovation Fulbright Post-doctoral Fellowship. Cornell University, NY, USA. Advisor A.N. Lakso, Fruit crop physiology program. Modeling carbon and water relations in grapevine.
- 2008-2014 "Ramón y Cajal" Research Associate. IVIA Valencia. Irrigation and water relations of woody crops. General viticulture.
- 2014- Tenured scientist. Spanish Research Council (CSIC). Irrigation and water relations of woody crops. Fertilization. General viticulture.

Synopsis

I have spent my career working on applied aspects of irrigation and water relations of woody perennial crops. Most of my research studies aimed at improving on-farm irrigation efficiency, plant water use efficiency and indeed water productivity. This was done by using several approaches: 1) Reducing the consumptive plant water use using deficit irrigation, partial root-zone drying and canopy management techniques, 2) Improving the harvest index by using regulated deficit irrigation, root-pruning and dwarfing rootstocks, 3) Reducing irrigation water lost by deep percolation by determining, on-site, the plant water use and the soil water movement using plant and soil sensors, 4) Reducing soil evaporation by using sub-surface drip irrigation, and 5) Stimulating root water uptake and its activity developing a near hydroponics system for woody perennial crops. The responses studied were mainly related with crop productivity, fruit composition, and the orchard economic return.

At the moment, my research career is more focused on identifying innovative orchard and vineyards water use efficiency tools. I try; however, to also emphasize how the individual processes are integrated in the whole plant and what the grower can do to influence such processes to improve plant productivity, especially under field conditions. I feel that we will need more and more integrative physiology to understand plant responses to the environment and cultural treatments, to improve our management and culture, and to attack increasingly complex problems such as global climate change.

Currently I am combining my research activities with additional duties related with benchmarking research needs in the agricultural water management area. In this sense I am participating in the WIRE EIP on Water Action Group and I am serving as an expert for the Spanish National Agriculture Research Institute (INIA) in the JPI-FACCE. In addition, I am giving some support to the H2020 Spanish National Contact Point for the Societal Challenge 2 and I am part of the scientific board for the PRIMA Joint Programme "Partnership for research and innovation in the Mediterranean area".