

Special Issue on
Managing Chestnut as a Multipurpose Crop in a Changing World

CALL FOR PAPERS

The chestnut (*Castanea* spp.) is an ancient multipurpose tree producing, nuts, timber, and other co-products namely tannins, which have been very important in human nutrition and rural economy for thousands of years. World production of nuts that was around 200 Kt in 60s of XX Century is nowadays estimated as being 2 Mt per year (FAO, 2014). Production is mainly supported by *C. mollissima*, *C. crenata*, and *C. sativa* species. Besides their biological, genetic, and phenotypic specificity, these species and their hybrids are differently distributed around the world and cultivated using appropriate agronomic models.

One of the most important challenges to meet for agronomists is to provide the 9 billion world population, expected in 2050, with a sustainable, secure supply of nutritious food from less land and using fewer inputs. As a nutritional source, chestnuts, also called “UnNuts” because they are nutritionally more similar to grains than to other nuts, can meet several requirements and offer several health benefits: they have only fat traces, significant amount of vitamin C, no cholesterol, no gluten and almost 50% of dry matter. To preserve this healthy food, adequate harvest and postharvest practices must be used and improved. Moreover chestnut is a sustainable crop, growing in multifunctional landscapes with a low or null pesticide input.

Increase of chestnut crop productivity is needed, by using better varieties and innovative management practices. Unfortunately, abiotic factors, such as warming and water stress, and biotic problems such as ink and blight diseases and gall wasp are contributing to reduce chestnut orchard area, nut production, and profitability.

This issue aims to provide a holistic overview about the different ecosystem services provided by chestnut and innovative practices to increase these services and postharvest processing in a changing world.

Authors are invited to submit original as well as review papers dealing with innovative practices to improve chestnut sustainability facing new challenges of the modern agriculture.

Potential topics include but are not limited to the following:

- ▶ Agronomical practices to improve yield
- ▶ Chestnut as a food dietary
- ▶ Chestnut breeding facing new challenges
- ▶ Ecosystem services provided by chestnut trees (provisioning, cultural, regulating, and supporting services: it can include carbon sequestration, provision of subproducts)
- ▶ Harvest and postharvest quality and processing
- ▶ Valorization of residues from the chestnut processing
- ▶ Importance of mycorrhizas for chestnut protection
- ▶ Innovative and smart practices to mitigating chestnut diseases and pests
- ▶ Innovative managing of groves to mitigate climate changes
- ▶ Management and use of genetic resources
- ▶ Vulnerability or resilience of past chestnut agroecosystems

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/ija/mcmc/>.

Lead Guest Editor

José Gomes-Laranjo, University of Trás-os-Montes e Alto Douro, Vila Real, Portugal
jlaranjo@utad.pt

Guest Editors

Cécile Robin, Institut National de La Recherche Agronomique, Bordeaux, France
cecile.robin@inra.fr

Rita Costa, INIAV, Lisboa, Portugal
rita.lcosta@iniav.pt

Roberto Botta, University of Torino, Torino, Italy
roberto.botta@unito.it

Santiago Pereira-Lorenzo, University of Santiago de Compostela, Santiago de Compostela, Spain
santiago.pereira.lorenzo@usc.es

Manuscript Due

Friday, 28 July 2017

First Round of Reviews

Friday, 20 October 2017

Publication Date

Friday, 15 December 2017