

The last joint declaration of the highest authorities of the Food and Agriculture Organization of United Nations (IMF, World Bank, WFP, and OECD) highlighted three issues of global importance, considered at risk the food security, role of agriculture in economic growth, and poverty reduction caused directly by factors such as COVID 19, changes in climatic conditions in productive areas, water availability, pests and conflicts between various countries that are affecting food production systems and access to them. It is here where the role of information and communications technologies play an important role in the global debate of specialists on these issues, making it necessary to permanently disseminate research or extension results that contribute to these great areas. World horticulture does not escape from these problems and faces the challenges of contributing to resolving problems that equally affect horticultural species on all continents. As a contribution to knowledge to face such challenges, the Colombian Journal of Horticultural Science continues the process of dissemination and delivery of research advances made by institutions, universities, and production associations related to horticulture and others crops from different thematic areas. For this reason, we are very pleased to present our second issue for the year 2022 (May-August) with contributions from different institutions on a variety of crops and themes.

In the Fruit tree section, the reader can find evaluations of the use of mycorrhizae in parallel to nutrient levels in blueberries in the high-altitude tropics. Contributions to the knowledge of the champa fruit (*Campomanesia lineatifolia* R. & P.) continue, this time describing the postharvest physiological behavior, which would improve the current marketing mechanism, since it is a highly perishable fruit. For the cultivation of carambola, the nutrient content in the fruits is quantified for two cultivars under two irrigation regimes, highlighting the behavior of the cultivar Golden star.

In the Vegetable section, the results of the evaluation of three promising lines of habanero chili pepper are shown using the microsatellite genetic marker technique, seeking to increase productivity and pungency, in such a way that progress is made in the establishment of a breeding program. In the case of tomato, results of the bacteria *Azospyrillum brasilense* and *Bradyrhizobium japonicum* are presented with the purpose of reducing the amount of nitrogen applied, favoring the economic sustainability of this important production system.

The results of different combinations of substrates used in the production of broccoli and cauliflower seedlings under the submerged table technique were evaluated, highlighting two substrates, carbonized rice husks and medium-textured sand. Results of the evaluation of fertilization levels in potato varieties are also presented, where the doses N 180, P₂O₅ 400, K₂O 358 kg ha⁻¹, in the cultivars Pastusa Suprema, Diacol Capiro, Superior, and ICA Única, and N 150, P₂O₅ 200, K₂O 100 kg ha⁻¹, in the cultivars Roja Huila and Parada Bilingüe, showed the best rates of marginal return for different environments.

In plant genetic resources, through interspecific crosses between commercial bean varieties and the yellow spot-resistant parent *Phaseolus polyanthus* (Grenm.), populations were obtained with the purpose of establishing commercial varieties resistant to

Boeremia noackiana (Allesch, Aveskamp, Gruyter & Verkley). In black beans, different periods and initial moisture contents were evaluated to maximize the physiological and sanitary quality of the seeds. For cowpea beans, stigmatic receptivity was verified in genotypes at different hours of the day. It was recorded that the highest receptivity in the cultivars BRS Milenium and Missouri was in the morning and in the afternoon it was for the cultivar Caupicor 50.

Within the section Other crops, through multivariate analysis, cassava varieties were evaluated, using different densities and application of a biostimulant. The cultivar FEPAGRO - RS 13 Vassourinha showed superiority and ideal performance. On the other hand, the response of the forage prickly pear (Mexican Elephant Ear) in the adsorption of CO₂ and gas exchange during the rain and drought periods is described. Finally, evaluations in cocoa cultivation are included, highlighting the use of lixiviates from the cob as a potential biofungicide for the management of moniliasis, as well as liming to mitigate the toxicity of cadmium in the plants.

As the readers can see, the articles published in this issue provide important advances in direct assistance to the growers, offering solutions to different problems.

Through the Journal, we continue to convene researchers and collaborators to present their scientific and technological contributions and their new research findings that contribute to the improvement of the technological, environmental, and productive problems of production systems, with an emphasis on horticultural species.

We take this opportunity to invite you to contribute to the special issue of our Journal on scientific and technological advances in avocado cultivation that will be launched in 2023.

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COLOMBIAN JOURNAL OF HORTICULTURAL SCIENCE