

In this issue

Research Article

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Optimization of NH₄NO₃ in Phaseolus vulgaris with Bacillus thuringiensis and Micromonospora echinospora plus crude extract of carbon nanoparticles

Published On: September 26, 2022 | Pages: 260 - 264

Author(s): Juan Luis Ignacio de la Cruz, Padmavati Share and Juan Manuel Sanchez-Yañez*

Nitrogenous fertilizer (NF) such as NH₄NO₃ is required to maintain the healthy growth of Phaseolus vulgaris, but when NF is applied indiscriminately, it causes hyperfertilization of the soil. One option is to reduce NH₄NO₃ and then optimize in P. vulgaris seed with s Bacillus thuringiensis and Micromonospora echinospora genus and species of endophytic bacteria plus a ...

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Analysis of the Environmental Quality of Seawater in the Bohai Sea, China

Published On: September 13, 2022 | Pages: 253 - 259

Author(s): Min Yang, Qian Cheng*, Chaozhong Xin, Lijuan Han and Linhao Niu

According to the survey data on seawater quality in the Bohai Sea from 2020 to 2021, a single-factor data analysis was carried out on the seawater environmental quality of Liaoning, Hebei, Tianjin, Shandong and the offshore waters. The results show that the seawater quality of the Bohai Sea in 2021 Compared with the more serious pollution in 2020, the main pollutants ...

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Citric acid acidification of wheat straw derived biochar for overcoming nutrient deficiency in alkaline calcareous soil (Case of Phosphorus)

Published On: August 27, 2022 | Pages: 248 - 252

Author(s): Adil Mihoub*

Phosphorous fixation in soils is a serious concern worldwide, and biochar is gaining attention daily due to its potential benefits for improving the agronomic benefits of applied phosphorus. The present study aims to enhance understanding of the phosphorus transformation process in a deprived sandy soil following biochar amendments (no-acidified wheat straw biochar an ...

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A microwave-based system combines drying, extraction and sterilization under low-temperature vacuum conditions

Published On: August 24, 2022 | Pages: 238 - 243

Author(s): Wei Cheng Chen, Chyun Chau Fuh, Chien Yu Lu and Hsun Heng Tsai*

This study develops a simultaneous system combining low-temperature drying, extraction, and sterilization under low temperature, by comprising a microwave source and a vacuum chamber. The study commences by investigating the reduction in moisture content under microwave heating in vacuum conditions as a function of the drying time, the material load, and the microwave ...

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Review on comparative genome mapping in crop improvement

Published On: August 08, 2022 | Pages: 218 - 224

Author(s): Zewdu Asrat* and Mastewal Gojjam

Comparative genomics is the study of the similarities and differences in the structure and function of hereditary information across taxa. The objective of this study was to highlight the role of comparative mapping in crop improvement. Hence, the study encompasses comparative genomics over the past two decades, multiple investigations of many additional taxa have del ...

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Influence of intra-row spacing on improved maize variety at Dambi Dollo University Research Site, Western Ethiopia

Published On: August 08, 2022 | Pages: 214 - 217

Author(s): Gemechisa Olana* and Chala Kitila

Maize (*Zea mays* L.) is one of the greatest significant grain crops in Ethiopia which ranked second only next tef in local production. However, its production is limited due to incorrect line spaces between crops. Therefore, field research was conducted at Dambi Dollo University during the 2020/2021 growing season under irrigated conditions for the production and yield ...

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Enhancing maize yield in Ethiopia a meta-analysis

Published On: July 12, 2022 | Pages: 193 - 201

Author(s): Tefera Merga*, Weifang Zhang, Zhao Shuaixiang and Duan Zhiping

Accurate nitrogen (N) fertilization and optimum plant density increase crop yields. In this study, I report the effects of N fertilization rate and plant density on maize yield in a meta-analysis, by using observations from 15 studies conducted in Ethiopia since the 2000s for possible refinement of N fertilizer and plant density recommendations. I assessed the respons ...

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The integration of farmer participation approaches in cotton variety development for efficient selection, adoption, and production of new cotton varieties in Zimbabwe

Published On: July 01, 2022 | Pages: 187 - 192

Author(s): Mare M*, Chapepa B, Mubvekeri W and Kutywayo D

The success of any breeding program rests upon the active involvement and participation of key stakeholders or technology recipients. Cotton (*Gossypium hirsutum* L.) is a versatile crop that is grown in most parts of the world, hence the need to involve different players in the process. Zimbabwe's national variety development program includes a "Client-

oriented" resear ...

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Review Article

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Neurotoxicity caused by lead present in food and environment: A review

Published On: August 10, 2022 | Pages: 232 - 235

Author(s): Elena-Iuliana Flocea* and Cosmin Ghelbere

A problem we are facing more and more often has caught our attention. Neurotoxicity is caused by lead contamination of the environment and food chain. The purpose of this review is to present the harmful effects of lead on human health. In the long term, lead accumulated in the body can cause cognitive, motor, and behavioral changes. According to recent studies, lead ...

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Review on the role of soil and water conservation practices on soil properties improvement in Ethiopia

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Author(s): Anteneh Asfaw*

Soil erosion is one of several major deterioration processes which result in soil degradation and declining agricultural productivity in Ethiopia due to the dense population, high livestock density, and intensive crop production in the area. Soil and water conservation practices are one of the mechanisms used to reduce erosion and associated nutrient loss, reducing th ...

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Importance of edible wild plants in world food security: The case of Turkey

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Author(s): Sefa Akbulut*

Production in industrial agriculture is under threat in the near future due to air pollution, excessive consumption, and climate change. Commercial production of traditional products is significant for the continuity of product diversity. Edible wild plants are usually collected from the wild and consumed for local needs. However, there are not enough initiatives for

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Mini Review

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Cantaloupe -A Food safety concern: Mini-Review

Published On: August 25, 2022 | Pages: 244 - 247

Author(s): Hansel A Mina* and Amanda J Deering

Historically, the United States has positioned itself as one of the leading producers and consumers of melons in the world with a 2020 production value of over \$295 million (excluding watermelons). It has been estimated that on average the per capita consumption of melons in the U.S. is about 24 pounds each year [1]. ...

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Opinion

Strengthen detection of raw milk somatic cell count - the first step for China milk quality improvement

Published On: August 17, 2022 | Pages: 236 - 237

Author(s): Shidong Zhang*

Milk is a healthy natural beverage and the main raw material of dairy products. It is well known that raw milk is the first link to guarantee and control the quality and safety of milk and dairy products. Only high-quality raw milk can produce high-quality dairy products. ...

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Case Study

Determination of some heavy metals and microbial profile of raw Sugar samples collected from Sudanese Sugar Industries in season 2017 in relation to EU.1998 and ICUMSA,1974 standards

Published On: July 26, 2022 | Pages: 202 - 208

Author(s): AM Babeker*, AR Ahmed, GI Mastafa, AA Abdalla and A Bakur

The study was conducted in Sudanese Sugar Industries during the period 2017 to aim the determination some heavy metals and microbial profiles of raw Sugar samples collected from Sudanese Sugar Industries in season 2017 in relation to EU.1998 and ICUMSA,1974 standards. The samples were obtained from all Sudanese Sugar Industries namely, (Kenana, White Nile, Assalaya, S ...

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