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In this issue

Research Article

Open Access Research Article PTZAID:OJPS-6-142

Plant population is the function of grain yield of maize

Published On: October 27, 2021 | Pages: 103 - 107

Author(s): MAK Mian*, SS Kakon, ST Zannat3 and AA Begum

A field experiment on hybrid maize with different plant population density was conducted at the Agronomy field of BARI, Joydebpur, Gazipur during the consecutive rabi season of 2019-2020 and 2020-2021. Five plant population density viz; T1= 66666 plants/ha (75cm × 20cm spacing: 6.67 plants/m2), T2= 83333 plants/ha (60cm × 20cm spacing:8.33 plants/m2), T3=100000 plants ...

Abstract View Full Article View DOI: 10.17352/ojps.000042

Open Access Research Article PTZAID:OJPS-6-140

Chemical composition and in vitro digestibility of some range plants

Published On: October 01, 2021 | Pages: 094 - 098

Author(s): Musa Ahmed Musa Tibin, Badreldeen Mohammed Musa Ibrahim, Suleiman Eshag Mohamed Abdalla, Yahia Ibrahim Mohammed Abutaba, Jumaa Barram Jadalla and Mohammed Alhadi Ebrahiem*

This study was carried out to determine chemical composition and in vitro dry matter and organic matter digestibility of range plant species of the area. Samples were collected from range lands at full maturity stage, dried under shade and subjected to chemical analysis and dry matter and organic matter in vitro digestibility for Vigna sunhum, Andropogan gayanus, Penn ...

Abstract View Full Article View DOI: 10.17352/ojps.000040

Open Access Research Article PTZAID:OJPS-6-138

Cluster-based pre-scaling up of improved faba bean variety technology demonstration at Arsirobe District of Arsi Zone, Oromia Regional State, Ethiopia

Published On: August 31, 2021 | Pages: 087 - 090

Author(s): Sintayehu Abebe* and Lemlem Abebe

Large Scale Demonstration (LSD) of Faba bean was conducted at Arsi robe district of Oromia regional state of Ethiopia. The district was selected due to its potential for Faba bean production. One cluster was formed in collaboration with district level agricultural experts.Generally the cluster size covered 4.6 hectares of land. A Faba bean varity called “Ashebeka” was ...

Abstract View Full Article View DOI: 10.17352/ojps.000038

Open Access Research Article PTZAID:OJPS-6-137

Cluster-based improved Malt barley technology demonstration in selected districts of Arsi and West Arsi zones of Oromia Regional State, Ethiopia

Published On: August 31, 2021 | Pages: 082 - 086

Author(s): Sintayehu Abebe* and Lemlem Abebe

A total of 5 malt barley clusters which contains 104 hectares of land were formed in collaboration with the districts level experts and “kebeles” level Development Agents (DAs). The Zones were selected due to their potential for Malt barley production.One popular variety called IBON 174/03 was demonstrated along with its full-recommended packages in the study areas.T ...

Abstract View Full Article View DOI: 10.17352/ojps.000037

Open Access Research Article PTZAID:OJPS-6-136

Univariate stability analysis and relationship among parameters for grain yield of striga resistant sorghum [Sorghum bicolor (L.) Moench] hybrids in Ethiopia

Published On: July 10, 2021 | Pages: 069 - 081

Author(s): Fantaye Belay*, Firew Mekbib and Taye Tadesse

Sorghum (Sorghum bicolor) known as a Camel crop of cereals, is among the dominant staple food grains for the majority of Ethiopians. Forty nine sorghum genotypes (hybrids + open pollinated varieties) were tested at five locations in a simple lattice design with two replications during the 2016 main cropping season. The objectives of this study were to determine yield ...

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Open Access Research Article PTZAID:OJPS-6-135

Phylogenetic and evolutionary relationships in selected Pinus species using rbcL and matK chloroplast genes

Published On: June 22, 2021 | Pages: 064 - 068

Author(s): Lav Singh, Pooja Dixit, Ravi Prakash Srivastava, Shivaraman Pandey, Arpit Singh, Praveen Chandra Verma and Gauri Saxena*

The genetic diversity of Pinus plants has been assessed in various phylogenetic studies that reveal the polymorphism directly at DNA levels. The rbcL and matK are the most commonly used markers for phylogenetic studies of Pinus sp. that exhibit a diverse geophysical adaptiveness and geographical variations across different regions as a result of genotypic modification ...

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Open Access Research Article PTZAID:OJPS-6-134

Cluster based pre-scaling up of improved malt barley technologies at Kofele district of West Arsi zone, Oromia regional state, Ethiopia

Published On: June 04, 2021 | Pages: 060 - 063

Author(s): Sintayehu Abebe* and Martha Gichamo

Pre-scaling up of malt barley was conducted at Kofele District of West Arsi zone of Oromia regional state, to increase farmers' capacity in production and management practices. Kofele district was selected due to its potential for barley production. One "kebele" was selected in collaboration with Kofele district agricultural and natural resource expert purposively bas ...

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Open Access Research Article PTZAID:OJPS-6-133

Analysis of extension gap among improved bread wheat producer's farmers found at Arsi Robe District of Arsi Zone, Oromia Regional State, Ethiopia

Published On: June 02, 2021 | Pages: 055 - 059

Author(s): Sintayehu Abebe*

This study reports the analysis of agricultural extension gap among four improved bread wheat varieties at Arsi Robe

district, Arsi Zone, along with their management practices under farmers 'condition to enhance farmers' knowledge and skill on bread wheat production. Four improved bread wheat varieties were used to demonstrate namely Honkolo,DEKA,Hidase(check) and L ...

Abstract View | Full Article View | DOI: 10.17352/ojps.000033

Open Access Research Article PTZAID:OJPS-6-131

Preparation and characterization of vermicompost made from different sources of materials

Published On: April 16, 2021 | Pages: 042 - 048

Author(s): Robe Elema Wako*

The study was conducted during 2020, at Fedis district of East Hararghe Zone, Oromia National Regional State; Ethiopia. Composting is a process where waste organic materials derived from plants and/or animals are decomposed by microbial action under aeration to produce a friable homogenous product that is added to soil. Biological, chemical and physical degradation of ...

Abstract View | Full Article View | DOI: 10.17352/ojps.000031

Open Access Research Article PTZAID:OJPS-6-130

Comparative ultrastructure of caryopsis and leaf surface anatomy in wild rice Oryza coarctata and O. rufipogon through Scanning Electron Microscope (SEM)

Published On: April 12, 2021 | Pages: 030 - 041

Author(s): Subhas Chandra Roy* and Anurag Chowdhury

The wild rice Oryza coarctata (Roxb.) is an herbaceous halophytic plant belongs to the grass family poaceae prevalent to the coastal regions of Southern Asia. The O. coarctata is the only hydro-halophytic rice germplasm under the genus Oryza and shows high salinity. Caryopsis ultrastructure of O. coarctata was compared with another wild rice O. rufipogon through Scann ...

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Open Access Research Article PTZAID:OJPS-6-129

Chemical pesticide tends lower appreciating alternatives of pest of control: Bangladesh perspective

Published On: March 10, 2021 | Pages: 027 - 029

Author(s): Abul Khayer Mian

Pesticide is commonly used for growing more food successfully to feed the increasing population of Bangladesh. It is a great challenge to provide food to people coping with the demand of nation. Consequently, high inputs like fertilizer, irrigation, pesticides were adopted to enhance crop productivity. Now, it is well known that pesticide has many harmful effects. Ext ...

Abstract View | Full Article View | DOI: 10.17352/ojps.000029

Open Access Research Article PTZAID:OJPS-6-127

Verification of the Efficacy of New Insecticide, Diesel (Lufenuron+Emamectin Benzoate) against Onion Thrips (Thrips Tabaci Lindeman) in Bale, south-eastern Ethiopia

Published On: February 02, 2021 | Pages: 015 - 018

Author(s): Mohammedamin Abdurezake* and Guta Eshetu

Onion (Allium cepa) is popularly called as “Queen of Kitchen” as it is used as food, salad, spice, condiment and in medicine. Currently, the production is practiced all over the round for its daily uses in food and source of income and for commercial purposes starting from the introduction in the country as planting material from Sudan. However, its productivity is co ...

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Open Access Research Article PTZAID:OJPS-6-125

Evaluation of tomato (Lycopersicon Esculentum Miller) varieties for nematode and ralstonia diseases resistance and productivity

Published On: January 12, 2021 | Pages: 001 - 010

Author(s): Alemu Tsega Alene* and Zelalem G Mariam

Tomato is one of the most remunerable and widely grown vegetables in the world. The objective of this study was to evaluate tomato varieties for nematode and Ralstonia diseases resistance and productivity. The experiment was conducted under a complete randomized design experiment with three replications at Hawassa University shade house.

Four varieties of tomato were ...

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Review Article

Open Access Review Article PTZAID:OJPS-6-143

Combining ability and heterosis in plant improvement

Published On: December 23, 2021 | Pages: 108 - 117

Author(s): Temesgen Begna*

Information on combining ability and heterosis of parents and crossings is crucial in breeding efforts. Genetic variety is crucial to the effectiveness of yield improvement efforts because it helps to broaden gene pools in any given crop population. The genotype's ability to pass the intended character to the offspring is referred to as combining ability. As a result, ...

Abstract View | Full Article View | DOI: 10.17352/ojps.000043

Open Access Review Article PTZAID:OJPS-6-141

Anti-tuberculosis effects of different medicinal plants: A narrative review

Published On: October 01, 2021 | Pages: 099 - 102

Author(s): Amjad Hussain*, Aadil Ameer Ali, Sultan Ayaz, Wahidullah, Pervez Mehar, Ahmad Ali, Zakir Ullah and Ramsha Baig

The medicinal plants contain various chemical constituents which play an important role in the treatment of various diseases. The current review explained the scattered information on medicinal plants used in the treatment of tuberculosis. The review contains four medicinal plants (Allium sativum (L), Aloe vera (L), Acalypha indica (L) and Allium cepa (L)) having anti ...

Abstract View | Full Article View | DOI: 10.17352/ojps.000041

Open Access Review Article PTZAID:OJPS-6-132

Effects of crop evolution under domestication and narrowing genetic bases of crop species

Published On: April 29, 2021 | Pages: 049 - 054

Author(s): Temesgen Begna*

Crop improvement is very crucial to satisfy the world demand in the presence of different challenges like climate change, reducing arable land and increasing population growth. Crop improvement program is continuously striving to increase crop yield, enhance crop quality and improve crop tolerance to biotic and abiotic stresses. Domestication has a great role in incre ...

Abstract View | Full Article View | DOI: 10.17352/ojps.000032

Open Access Review Article PTZAID:OJPS-6-128

Genetic mapping in crop plants

Published On: March 08, 2021 | Pages: 019 - 026

Author(s): Temesgen Begna* and Husen Yesuf

The genetic map is the chromosome linear linkage map that uses the chromosome recombination and exchange rate as the relative length and genetic markers as the main body. Genetic-map construction is a critically important tool for further genomic studies, as well as for genetic breeding of economically important species. Linkage maps are estimates of the distance betw ...

Abstract View | Full Article View | DOI: 10.17352/ojps.000028

Open Access Review Article PTZAID:OJPS-6-126

The principal factors responsible for biodiversity loss

Published On: January 21, 2021 | Pages: 011 - 014

Author(s): Vijeta Singh*, Shikha Shukla and Anamika Singh

The exclusive attribute of the planet earth is the presence of life, and the remarkable trait of life is the variety or the diversity, which is also known as biodiversity. As per ScienceDaily news 2020, it is assessed that about 15 million distinct species are present on earth and only 2 million of them are presently recognized by science. Biodiversity is diminishing ...

Abstract View | Full Article View | DOI: 10.17352/ojps.000026

Letter to Editor

Open Access Letter to Editor PTZAID:OJPS-6-139

Criterion is a touchstone in study of early angiosperms

Published On: September 29, 2021 | Pages: 091 - 093

Author(s): Xin Wang*

Herendeen et al. set up a criterion identifying fossil angiosperms while they named five examples of fossil angiosperms in the same paper. Their normal-appearing operation, however, is fundamentally flawed: their exemplar fossil angiosperms did not honor their own criterion. This operation confused their proponents as well as other botanical researchers, hindering hea ...

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