Hernan Pablo Burrieza
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Experimental
PhD

About Publications 30 Questions 1 Net

ut

30
Publications
17,157
Reads
437
Citations

oduction

Skills and Expertise

Plant Anatomy | TEM Image Analysis | Seed Biology | Seed Technology | microRNA | Transmission Electron Microscopy... | Plant Physiology | Proteomics

lications

lications (30)

Micropropagation protocol for coastal quinoa

Article Full-text available

May 2020

Jose Javier Regalado Gonzalez · Vanesa Eleonora Tossi · Hernan Pablo Burrieza · [...] · Sandra Pitta

Quinoa is a model halophyte plant, with seeds rich in proteins, fatty acids and lacking prolamines. There are two types of quinoa cultivars: highland and coastal. Coastal cultivars are used in breeding programs for warm-season quinoa production. Different biotechnological tools are useful for breeding and understanding the mechanisms involved in ab...

View

Salinity tolerance mechanisms during germination and early seedling growth in Chenopodium quinoa Wild. genotypes with different sensitivity to saline stress

Article

Apr 2020

Fabio Causin · Damián A.E. Bordón · Hernan Pablo Burrieza

View

Quinoa does not contain prolamins. Comments on "Quinoa protein: Composition, structure and functional properties", Dakhili et. al (2019)

Article

Apr 2020

Hernan Pablo Burrieza · Axel Joel Rizzo · Oscar E. Pérez

View

Beyond Arabidopsis: Differential UV-B Response Mediated by UVR8 in Diverse Species

Article Full-text available

Jun 2019

Vanesa Eleonora Tossi · Jose Javier Regalado Gonzalez · Jesica Iannicelli · [...] · Sandra Pitta

Ultraviolet-B radiation (UV-B, 280-315 nm) is an important environmental signal that regulates growth and development in plants. Two dose-dependent UV-B response pathways were described in plants: a specific one, mediated by UVR8 (the specific UV-B receptor) and an unspecific one, activated by the oxidative damage produced by radiation. The constit...

View

Shotgun proteomic analysis of quinoa seeds reveals novel lysine-rich seed storage globulins

Article

Apr 2019

Hernan Pablo Burrieza · Axel Joel Rizzo · Ellen Vale · [...] · Sara Maldonado

View

Deterioration of willow seeds during storage

Article Full-text available

Nov 2018

Maria Paula López-Fernández · Laura Moyano · María D. Correa · [...] · Sara Maldonado

Willow (Salix spp.) seeds are able to tolerate desiccation, but differ from typical orthodox seeds in that they lose viability in a few days at room temperature, and in that the chloroplasts in embryo tissues do not dedifferentiate during maturation drying, thus retaining chlorophyll and maintaining intact their thylakoid membranes. In the present...

View

Supplementary Material

Data

Nov 2018

Maria Paula López-Fernández · Laura Moyano · María D. Correa · [...] · Sara Maldonado

View

Betanin loaded nanocarriers based on quinoa seed 11S globulin. Impact on the protein structure and antioxidant activity

Article

Sep 2018

Jimena Hebe Martínez · Francisco Velázquez · Hernan Pablo Burrieza · [...] · Oscar E. Pérez

The objective of the present contribution was to design and characterize betanin (Bt) loaded 11S quinoa seed protein nanovehicles. 11S was isolated from quinoa seed floor. Protein purification was performed by Size-Exclusion Chromatography. MALDI-TOF (Matrix-Assisted Laser Desorption/Ionization-Time-Of- Flight) analysis confirmed the identity of 11...

View

Use of UV-curable acrylates gels as mounting media for palynological samples

Article Full-text available

Jul 2017

Sol Noetinger · Roberto R. Pujana · Alfredo Burrieza · Hernan Pablo Burrieza

UV-curable acrylates are used as an easy, economic and rapid mounting media to mount palynological samples. The aqueous palynological residue is dehydrated with ethanol in order to be set in UV-curable acrylates such as Trabasil ® NR2 and Acrysoft ® urethane acrylates. These mounting medias have advantages over other ones: specimens remain in fixed...

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Use of UV-curable acrylates gels as mounting media for palynological samples

Article Full-text available

Jan 2017

Sol Noetinger · Roberto R. Pujana · A. Burrieza · Hernan Pablo Burrieza

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acrylates such as Trabasil ® NR2 and Acrysoft ® urethane acrylates. These mounting medias have advantages over other ones: specimens remain in fixed...

View

Death of embryos from 2300-year-old quinoa seeds found in an archaeological site

Article

Dec 2016

Hernan Pablo Burrieza · Agustín Sanguinetti · Catalina Teresa Michieli · [...] · Sara Maldonado

In the 1970s, during excavations at Los Morrillos, San Juan, Argentina, quinoa seeds were found within ancient pumpkin crocks protected from the light and high temperatures, and preserved in the very dry conditions of the region. The radiocarbon dates confirmed the age of these seeds at around 2300 years. Sectioning of some of these seeds showed re...

View

Cellular and molecular aspects of quinoa leaf senescence

Article Full-text available

Jun 2015

Maria Paula López-Fernández · Hernan Pablo Burrieza · Axel Joel Rizzo · [...] · Sara Maldonado

During leaf senescence, degradation of chloroplasts precede to changes in nuclei and other cytoplasmic organelles, RuBisCO stability is progressively lost, grana lose their structure, plastidial DNA becomes distorted and degraded, the number of plastoglobuli increases and abundant senescence-associated vesicles containing electronically dense parti...

View

Tolerance to saline conditions

Chapter Full-text available

Mar 2015

Stefania Biondi · Karina Beatriz Ruiz Carrasco · Enrique A. Martínez · [...] · Sven-Erik Jacobsen

Salinity is today one of the most widespread constraints in irrigated agriculture. Thus, salt tolerance is an agronomically important trait receiving increasing attention among scientists worldwide. Quinoa is tolerant to soil salinity and other adverse environmental factors, hence it attracts the attention of researchers as a possible crop in a cha...

View

Seed physiology and response to germination conditions

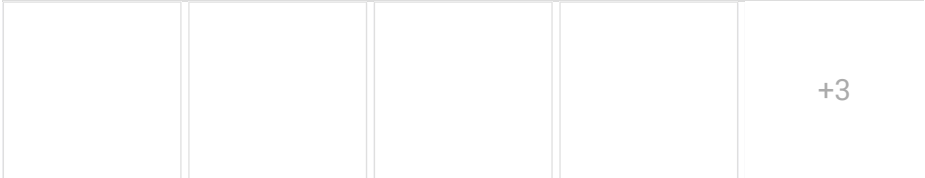
Chapter Full-text available

Mar 2015

Diana Ceccato · Jose Delatorre-Herrera · Hernan Pablo Burrieza · [...] · Castellión M.

This chapter brings together knowledge of the germination and storage behaviour of quinoa seeds in relation to three general aspects: germination response to different factors and in situations of stress; tolerance to pre-harvest sprouting and dormancy control; and the dynamics of ageing and potential longevity of seeds in storage. Quinoa seeds dem...

View



Analogous reserve distribution and tissue characteristics in quinoa and grass seeds suggest convergent evolution

Article Full-text available

Oct 2014

Hernan Pablo Burrieza · Maria Paula López-Fernández · Sara Maldonado

Quinoa seeds are highly nutritious due to the quality of their proteins and lipids and the wide range of minerals and vitamins they store. Three compartments can be distinguished within the mature seed: embryo, endosperm, and perisperm. The distribution of main storage reserves is clearly different in those areas: the embryo and endosperm store pro...

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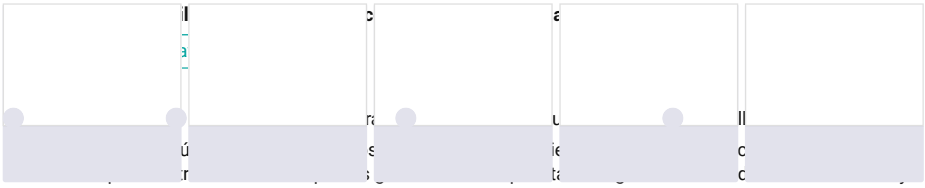


ante situaciones de estrés, la tolerancia al brotado pre-cosecha y el control de la dormición, y la dinámica de envejecimiento y longevid...

View

Tolerancia a condiciones salinas

Chapter Full-text available

Oct 2014

Stefania Biondi · Karina Beatriz Ruiz Carrasco · Enrique A. Martínez · [...] · Sven-Erik Jacobsen

La salinidad está hoy entre las restricciones más extendidas en la agricultura de regadío. Así, la tolerancia a la sal es un rasgo agronómicamente importante que está recibiendo cada vez más atención entre los científicos de todo el mundo. La quinua es tolerante a la salinidad del suelo y otros factores ambientales adversos, y por consiguiente atra...

View

BAZILE Didier, BERTERO Daniel and NIETO Carlos, 2013. "Estado del arte de la quinua en el mundo en 2013": Libro de resúmenes. Una publicación FAO/CIRAD en el marco del Año Internacional de la Quinua. 68 p.

Book Full-text available

Dec 2013

Isabelle Adolf Verena · Christian d. Alanoca · Adriana Alercia · [...] · Andres Zurita-Silva

View

Comparative wood anatomy of vegetative organs (stem and rhizome) of Sophora linearifolia (Sophoreae, Papilionoideae, Leguminosae)

Article Full-text available

Dec 2013

Roberto R. Pujana · Hernan Pablo Burrieza · Mariana Silva · [...] · Maria A. Castro

Wood anatomy of stem and rhizome of Sophora linearifolia, a rhizomatous plant endemic to centre Argentina, is described. Structural description of thin sections and macerations includes microphotographs of optical and scanning electron microscopy. Significant anatomical differences exist between secondary xylem of aerial orthotropic shoots and unde...

View

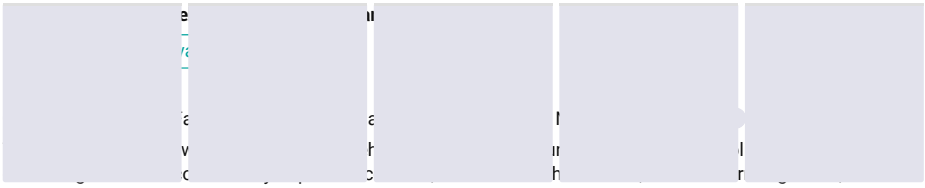
El grano de quinua y las dehidrinas

Article

Jan 2013

Hernan Pablo Burrieza · Leandro Martínez Tosar · María Susana Avella Grillia · [...] · Sara Maldonado

View



eastern Paraguay. The A. angustifolia seeds have been categorized as recalcitrant. Dehydrins were studied by western blot analysis an...

View

Nuclear Import and Dimerization of Tomato ASR1, a Water Stress-Inducible Protein Exclusive to Plants

Article Full-text available

Aug 2012

Martiniano M Ricardi · Francisco F Guaimas · Rodrigo M González · [...] · Norberto D Iusem

The ASR (for ABA/water stress/ripening) protein family, first described in tomato as nuclear and involved in adaptation to dry climates, is widespread in the plant kingdom, including crops of high agronomic relevance. We show both nuclear and cytosolic localization for ASR1 (the most studied member of the family) in histological plant samples by im...

View

Accumulation pattern of dehydrins during sugarcane (var. SP80.3280) somatic embryogenesis

Article Full-text available

Aug 2012

Hernan Pablo Burrieza · Maria Paula López-Fernández · Tatiana Barroso Chiquieri · [...] · Sara Maldonado

Unlabelled: The objective of the present study was to determine dehydrin protein levels in sugarcane var. SP80-3280 during somatic embryogenesis. Dehydrins from embryogenic and non-embryogenic cell cultures were analyzed using western blot and in situ immunolocalization microscopy. Both techniques employ antibodies raised against a highly conserve...

View

High salinity induces dehydrin accumulation in Chenopodium quinoa Willd. cv. Hualhuas embryos

Article Full-text available

May 2011

Hernan Pablo Burrieza · Hans-Werner Koyro · Leandro Martínez Tosar · [...] · Sara Maldonado

Background and Aims Chenopodium quinoa can grow at altitudes of 3,600–4,000 masl and is adapted to the highly arid conditions typical of the salty soils in the South American Altiplano, with less than 250 mm of annual rain and temperatures below 0°C. The aim of the study was to investigate the effect of salinity on the dehydrin content of mature e...

View

On the nature and origin of the oxalate package in Solanum sisymbriifolium anthers

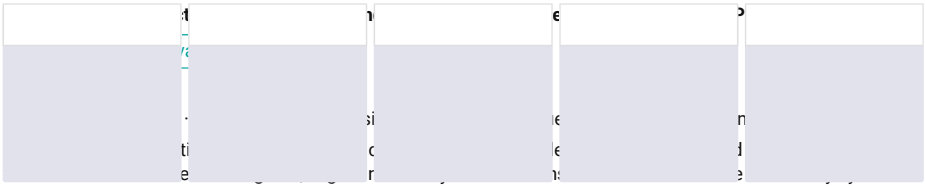
Article

Apr 2010

Hernan Pablo Burrieza · Maria Paula López-Fernández · Verónica Láinez · [...] · Sara Maldonado

This is a detailed study carried out in Solanum sisymbriifolium Lam. on the development of the circular cell cluster (CCC) during crystal deposition, as well as the composition of the crystals. Light microscopy and scanning and transmission electron microscopy (TEM) were used to characterize tissue throughout anther development. Energy dispersive X...

View



that are degraded, resulting in thin-celled, lignin-free, translucent, circular to elliptical areas, some of which have cells devoid of a...

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Pollen Grain Morphology of Selected Allergenic Species Native to Southern South America

Article Full-text available

Jan 2009

Luis Palazzesi · Roberto R. Pujana · Hernan Pablo Burrieza · Alberto Penas-Steinhardt

Pollen grains of Celtis tala (Celtidaceae), Phytolacca dioica (Phytolaccaceae), Schinopsis balansae (Anacardiaceae) and Solidago chilensis (Asteraceae) are examined with light and scanning electron microscopy, described, and illustrated. These four unrelated species are native to southern South America and considered an important source of skin pri...

View

Anatomía de la madera de Ribes magellanicum (Grossulariaceae)

Article

Jul 2008

Roberto R. Pujana · Hernan Pablo Burrieza · María A. Castro

Wood anatomy description of Ribes magellanicum Poir. is given including specimens of its two subspecies. This is the first detailed secondary xylem study of a species included in the South and Central American subgenus Parilla Jancz. Wood anatomy of R. magellanicum shows the following typical anatomical features cited for northern hemisphere Ribes...

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Wood anatomy of Ribes magellanicum (Grossulariaceae)

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Roberto R. Pujana · Hernan Pablo Burrieza · María Agueda Castro

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View

Anatomía comparada de órganos vegetativos (tallo y rizoma) de Sophora linearifolia (Sophoreae, Papilionoideae, Leguminosae).

Article

Roberto R. Pujana · Hernan Pablo Burrieza · Mariana Silva · [...] · María A. Castro

Anatomía comparada de órganos vegetativos (tallo y rizoma) de Sophora linearifolia (Sophoreae, Papilionoideae, Leguminosae). Se describe la anatomía de madera de Sophora linearifolia, una planta rizomatosa endémica del centro de Argentina. La descripción estructural de los cortes delgados y macerados incluye microfotografías de microscopio óptico y...

View

stions

stion (1)

Does anyone have an effective method to quantify glycine betaine in leaves by spectrophotometry?

Question

Mar 2020

We have used some protocols that are based on the precipitation of glycine betaine with iodine, but have not worked well.

View

work

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Andres Zurita-Silva
Chilean Economic Development Agency (CORFO)

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Current position
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Sara Maldonado's Lab

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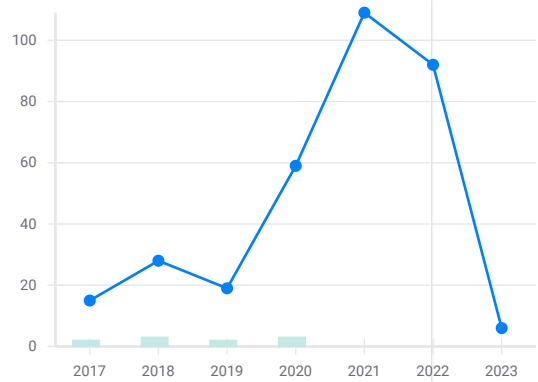

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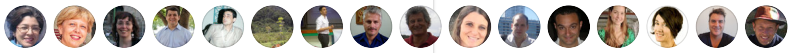

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