

TABLAS DE CONTENIDO

NOVIEMBRE 16 AL 30 DE 2013

Acta biológica venezuelica 30(1/2):2010	02
Agrociencia 47(5):2013	03
Ciencia e agrotecnología 36(2):2012	04
Innovación y ciencia 20(2):2013	05
Journal of economic entomology 106(4):2013	06
Phytopathology 103(7):2013	10
Plant physiology 162(4):2013	11
Revista ceres 60(4):2013	14
Revista de la Universidad de La Salle 61:2013	16

Acta biológica venezuelica 30(1/2):2010

Editorial	i
Andrade, J. y col. Diferenciación morfológica entre poblaciones de Jupiaba cf. <i>Polylepis</i> (Characiformes: Characidae) del río Cuyuní y sub-cuenca del sur del río Orinoco (Venezuela)	1
Feijoo, A. y col. Dinámica espacial en antropobiomas de los Llanos orientales, Colombia	11
De Guglielmo, Z. y col. Optimización de los parámetros de transformación genética de café mediante biobalística con el gen reportero GUS	23
Bonilla, A. y col. Ictiofauna y herpetofauna de los sistemas lagunares Chacopata Bocaripo y Campota Buena Vista, de la península de Araya, estado Sucre, Venezuela	35
Rodríguez, J.G. y E. Villamizar. Comportamiento territorial de <i>Stegastes planifrons</i> (Perciformes: Pomacentridae) en dos arrecifes con diferente grado de impacto en el parque nacional Morrocoy, Venezuela	51
Fernández, R. Influencia del estrés hídrico inducido por desecación en la regeneración in vitro de variedades venezolanas de arroz <i>Ortza sativa</i> L.	63

Agrociencia 47(5):2013.

Agua suelo clima * Water soils climate

Transferencia regional de información hidrológica mediante regresión lineal múltiple de tipo Ridge. Regional transference of hydrologic information through multiple linear regression of ridge type. D. Francisco Campos-Aranda 411

Biodegradation of wastewater pollutants by activated sludge coimmobilized with *Scenedesmus obliquus*. Biodegradación de contaminantes de aguas residuales por lodos activados coinmovilizado con *Scenedesmus obliquus*. Alejandro Ruiz-Marin, Yunuen Canedo-Lopez, Silvia del C. Campos-García, Mirna Y. Sabido-Perez, Jose del C. Zavala-Loria 429

Ciencia animal * Animal science

Eficiencia técnica y viabilidad de los sistemas de pastoreo de vacunos de leche en la Pampa, Argentina. Technical efficiency and viability of grazing dairy cattle systems in La Pampa, Argentine. Elena Antón, Antón García, José Perea, Hernán Pacheco, Ana González 443

Protección vegetal * Plant protection

Resistencia a roya de la hoja en variedades de trigo (*Triticum spp. L.*) adaptadas a El Bajío, México. Resistance to leaf rust in wheat (*Triticum spp. L.*) varieties adapted to El Bajío, México. Ernesto Solis-Moya, Julio Huerta-Espino, María F. Rodríguez-García, Héctor E. Villaseñor-Mir, Eduardo Espitia-Rangel, Lourdes Ledesma-Ramírez y María del P. Suaste-Franco 457

Variation in insect pest and virus resistance among habanero peppers (*Capsicum chinense Jacq.*) in Yucatán, México. Variación en resistencia a insectos herbívoros y virosis en líneas de chile habanera (*Capsicum chinense Jacq.*) en Yucatán, México. Jorge C. Berna-Mier y Teran, Luis Abdala-Roberts, Antonio Durán-Yáñez, Felipe Tut-Pech 471

Recursos naturales renovables * Natural renewable resources

Densidad y composición de árboles dispersos en potreros en la Sierra de Tabasco, México. Density and composition of scattered trees in pastures at the Sierra of Tabasco, México. Cándido Martínez-encino, Gilberto Villanueva-López, Fernando Casanova- Lugo 483

Producción de hojarasca en *Pinus halepensis Mill* y *Pinus cembroides Zucc.* y su relación con algunos factores climáticos. Litterfall production in *Pinus halepensis Mill.* and *Pinus cembroides Zucc.* and its relationship with some climatic factors. J. Damián López-López, Jorge Méndez González, J. Armando Nájera-Castro 497

Socioeconomía * Socioeconomics

El precio mínimo al productor primario de leche para reducir las importaciones de lácteos en México. Minimum price for milk primary producers to reduce dairy imports in México. J. Jesús Brambila-Paz, Saturnino Mora-Flores, Verónica Pérez Cerecedo 511

Ciencia e agrotecnologia 36(2):2012.

Review

Hydropedology. Carlos Rogério de Mello, Nilton Curi 137

Agricultural sciences

Electrical conductivity and mineral composition of the imbibition solution of bean seeds during storage. Claudia Dense da Silva, Mariana Silva Rosa Pazeto 147

Estimates of genetic parameters of late seed-coat darkening of carioca type dry beans. Lilian Cristina Andrade de Araújo, Magno Antonio Patto Ramalho 156

Estimate of genetic parameters and predicted gains with early selection of physic nut families. Bruno Galveas Laviola, Alexandre Alonso Alves 163

Genetic diversity in australian cedar genotypes selected by mixed models. Rulfe Tavares, Alexandre Pio Viana, Deborah Guerra Barroso, Antonio Teixeira do Amaral Júnior 171

Morphology and pollen viability of *Lolium multiflorum* Lam. Renata de Castro Nunes, Fernanda de Oliveira Bustamante 180

Food science and technology

Determination of the chemical composition and fuctional properties of shrimp waste protein concentrate and lyophilized flour. Olivaldo Lacerda Brasileiro, José Marcelino Oliveira Cavalheiro, 189

Development and description of light functional dulce de leche with Coffee. Ivina Catarina de Oliveira Guimaraes, Maria Helena da Rocha Leao, Carlos José Pimenta 195

Influence of the time/temperatura binomial on the hydroxymethylfurfural content of floral honeys subjected to heat treatment. Roberta de Oliveira Resende Ribeiro, Carla da Silva Carneiro 204

The effect of Co60 on the physical and physicochemical properties of rice. Ivina Catarina de Oliveira Guimaraes, Joelma Pereira, Vanda María de Oliveira Cornélio 210

Agricultural engineering

Use of digital images for evaluating soil compaction in the culture of beans. Daniel Mariano Leite, Luciano Baiao Vieira, Haroldo Carlos Fernández 217

Amino acid reduction in broiler diets supplemented with phytase and elaborated according to different nutritional plants. Jeferson Eder Ferreira Oliveira, Paulo Borges Rodríguez 224

Innovación y ciencia 20(2):2013.

Vistazos

Mitos sobre las infecciones virales: Tensión entre la ciencia y las creencias populares. María Fernanda Gutiérrez 8

Historia de la ciencia

Bolívar y la ciencia. Luis Henrique Gómez Casablanca 12

Educación

Bibliotecas y aprendizaje. Gilberto Cardozo Barreto 24

Entrevista con la ciencia colombiana

Moisés Wasserman, premio nacional al mérito científico categoría vida y obra 2012. María Fernanda Gutiérrez, Germán Cubillos Alonso 30

Tecnología

Las smart grids no son inteligentes. Horacio torres-Sánchez, Bertha E. Luna 50

Fotografía

Ver para conocer, conocer para preservar. Mosca de patas muy largas. Hormigas doradas. Chinche anaranjado. Francisco López Machado 56

Género y ciencia

Entrevista con Eulalia Pérez Sedeño. Carmen Lozano Bright 58

Ingeniería civil

Importancia del diseño universal para entornos urbanos influyentes. María Fernanda Serrano Guzmán, Norma Cristina Solarte Vanegas, Marielis Yaneth Leguízamo Ortiz, Cristian Josué León Uribe 64

Journal of economic entomology 106(4):2013.

Forum

Wing shape and size of the western corn rootworm (Coleoptera: Chrysomelidae) is related to sex and resistance to soybean-maize crop rotation. K.M. Mikac, J. Douglas, J.L. Spencer 1517

Field-evolved resistance: Assessing the problem and ways to move forward. Douglas V. Sumerford, Graham P. Head, Anthony Shelton 1525

Apiculture and social insects

A rapid survey technique for *Tropilaelaps* mite (Mesostigmata: Laelapidae) detection. Jeffery S. Pettis, Robyn Rose, Elinor M. Lichtenberg, and Dennis van Engelsdorp 1535

Field evaluations of the efficacy of distance plus on invasive ant species in northern Australia. Garry A. Webb and Benjamin D. Hoffmann 1545

Conversion of high and low pollen protein diets into protein in worker honey bees (Hymenoptera: Apidae). M. Basualdo, S. Barragán, L. Vanagas, C. García 1553

Arthropods in relation to plant disease

Transmission efficiency of tomato apex necrosis virus by *Bemisia tabaci* (Hemiptera: Aleyrodidae) biotype B in tomato. M. Barajas-Ortiz, C.R. León-Sicairos, J.A. López-Valenzuela 1559

Population dynamics of three aphid species (Hemiptera: Aphididae) on tour Ipomoea spp. infected or noninfected with sweetpotato potyviruses. E.N. Wosula, J.A. Davis 1566

Presence of *Dalbulus maidis* (Hemiptera: Cicadellidae) and of *Spiroplasma kunkelii* in the temperate region of Argentina. E. carloni, P. Carpane, S. Paradell 1574

Biological and microbial control

Biological responses of *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae) to *Steinernema carpocapsae* (Nematoda: Steinernematidae). Barbara Manachini, Domenico Schillaci 1582

Pesticide compatibility with natural enemies for pest management in greenhouse gerbera daisies. Cheri. M. Abraham, S.K. Braman, R.D. Oetting, and N.C. Hinkle 1590

Beauveria bassiana (Ascomycota: Hypocreales) wound dressing for the control of *Euzophera pinguis* (Lepidoptera: Pyralidae). E. Quesada-Moraga, M. Yousef, A. Ortiz 1602

Commodity treatment and quarantine entomology

Development of phytosanitary cold treatments for oranges infested with *Bactrocera invadens* and *Bactrocera zonata* (Diptera: Tephritidae) by comparison with existing cold treatment schedules for *Ceratitis capitata* (Diptera: Tephritidae). Guy J. Hallman, Scott W. Myers 1608

Effects of phosphine fumigation on survivorship of *Epiphyas postvittana* (Lepidoptera: Tortricidae) Eggs. Yong-Biao Liu, Samuel S. Liu, Gregory Simmons 1613

Ecology and behavior

Frequency and distribution of extended diapause in Nebraska populations of *Diabrotica barberi* (Coleoptera: Chrysomelidae). Ryan W. Geisert and Lance J. Meinke 1619

Gall development and clone dynamics of the galling aphid *Schlechtendalia chinensis* (Hemiptera: Pemphigidae). Shu-Xia Shao, Zi-Xiang Yang, and Xiao-Ming Chen 1628

Biology and developmental strategies of the palaearctic parasitoid *Bracon nigricans* (Hymenoptera: Braconidae) on the neotropical moth *Tuta absoluta* (Lepidoptera: Gelechiidae). Antonio Biondi, Nicolas Desneux, Edwige Amiens-Desneux 1638

Field and forage crops

The susceptibility of different pepper varieties to infestation by *Bactrocera latifrons* (Diptera: Tephritidae). Anothai Wingsanoi, Nutcharree Siri, and Jeremy N. McNeil 1648

EAG responses of *Apis cerana* to floral compounds of a biodiesel plant, *Jatropha curcas* (Euphorbiaceae). Changwei Luo, Zachary Y. Huang, Kun Li, and Yongyu Sun 1653

Ex-ante determination of the capacity of field tests to detect effects of genetically modified corn on nontarget arthropods. J. Comas, B. Lumbierres, X. Pons, and R. Albajes 1659

Corn stand and yield loss from seedling injury by southern corn rootworm (Coleoptera: Chrysomelidae). G. David Buntin and John N. All 1669

Reduction of soybean yield components by *Megacopta cribraria* (Hemiptera: Plataspidae). Nicholas J. Seiter, Jeremy K. Greene, and Francis P.F. Reay-Jones 1676

Forest entomology

Trap lure blend of pine volatiles and Bark beetle pheromones for *Monochamus* spp. (Coleoptera: Cerambycidae) in pine forests of Canada and the United States. Daniel R. Miller, Kevin J. Dodds, Andy Eglitis, and Kenneth F. Raffa 1684

Evaluation of screen barriers on redbay trees to protect them from *Xyleborus glabratus* (Coleoptera: Curculionidae Scolytinae): and distribution of initial attacks in relation to stem moisture content diameter and height. M. Lake Maner, James L. Hanula 1693

Horticultural entomology

A repellent net as a technology to protect cabbage crops. T. Martin, R. Palix, A. Kamal, E. Delétré, R. Bonafos, S. Simon, and M. Ngouajio 1699

Binomial and enumerative sampling of *Tetranychus urticae* (Acari: Tetranychidae) on peppermint in California. Kris E. Tollerup, Daniel Marcum, Rob Wilson, and Larry Godfrey 1707

Seasonal biology of *Ferrisia gilli* (Hemiptera: Pseudococcidae) in California Sierra foothill vineyards. Lynn R. Wunderlich, Monica L. Cooper, and Kent M. Daane 1716

Diel activity and behavior of *Bragada hilaris* (Hemiptera: Pentatomidae) on desert cole crops. Ta-I Huang, Darcy A. Reed, Thomas M. Perring, and John C. Palumbo 1726

Advances in the use of trapping systems for *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae): Traps and attractants. S. Vacas, J. Primo, and V. Navarro-Llopis 1739

Life history, natural enemies, and management of *Disholcopsis quercusvirens* (Hymenoptera: Cynipidae) on live oak trees. Jessica Platt Bird, George Melika, James A. Nicholls 1747

Effect of *Tetranychus urticae* (Acari: Tetranychidae) on marketable yields of field-grown strawberries in north central Florida. Teresia W. Nyoike and Oscar E. Liburd 1757

Oviposition efficacy of *Drosophila suzukii* (Diptera: Drosophilidae) on different cultivars of Blueberry. Hirotoshi Kinjo, Yasuhisa Kunimi, Takuya Ban, and Madoka Nakai 1767

Neem derivatives are not effective as toxic bait for tephritid fruit flies. M.A. Silva, G.C.D. Bezerra-Silva, J.D. Vendramim, T. Mastrangelo, M.R. Forim 1772

Monitoring attack and flight activity of *Xylosandrus* spp. (Coleoptera: Curculionidae: Scolytinae): The influence of temperature on activity. Michael E. Reding, Christopher M. Ranger 1780

Household and structural insects

Delayed toxicity of two chitinolytic enzyme inhibitors (Psammaphlin A and Pentoxifylline) against eastern subterranean termites (Isoptera: Rhinotermitidae). Timothy J. Husen and Shripat T. Kamble 1788

Feeding response of subterranean termites *Coptotermes curvignathus* and *Coptotermes gestroi* (Blattodea: Rhinotermitidae) to baits supplemented with sugars, amino acids, and cassava. Venite Pesigan Castillo, Ahmad Said Sajap, and Mohd Hamami Sahri 1794

Effect of trap design, chemical lure, carbon dioxide release rate, and source of carbon dioxide on efficacy of bed bug monitors. Narinderpal Singh, Changlu Wang, Richard Cooper 1802

Lufenuron suppresses the resistance of Formosan subterranean termites (Isoptera: Rhinotermitidae) to entomopathogenic bacteria. Cai Wang, Gregg Henderson, Bal K. Gautam 1812

Insecticide resistance and resistance management

Baseline susceptibility to Cry1 Ac insecticidal protein in *Heliothis virescens* (Lepidoptera: Noctuidae) populations in Brazil. K.C. Albernaz, B.L. Merlin, S. Martinelli 1819

Lethal and sublethal effects of spinosad on *Spodoptera exigua* (Lepidoptera: Noctuidae). Dong Wang, Yong-Ming Wang, Hui-Yan Liu, Zheng Xin, and Ming Xue 1825

Regression analysis of dynamics of insecticide resistance in field populations of *Chilo suppressalis* (Lepidoptera: Crambidae) during 2002-2011 in China. Yueping He, Juefeng Zhang 1832

Dramatic changes in the genotypic frequencies of target insecticide resistance in french populations of *myzus persicae* (Hemiptera: Aphididae) over the last decade. Lise Roy, Séverine Fontaine, Laetitia Caddoux, Annie Micoud, Jean-Christophe Simon 1838

Acaricide resistance in *Tetranychus urticae* (Acari: Tetranychidae) populations from Cyprus. Vassilis A. Vassiliou and Pavlos Kitsis 1848

Insecticide resistance status of field populations of *Spodoptera exigua* (Lepidoptera: Noctuidae) from China. Wunan Che, Tian Shi, Yidong Wu, and Yihua Yang 1855

Molecular entomology

Differentially expressed genes of *Coptotermes formosanus* (Isoptera: Rhinotermitidae) challenged by chemical insecticides. Yi Zhang, Yuanyuan Zhao, Xuehong Qiu, Richou Han 1863

Plant resistance

Characterization of resistance to adult spittlebugs (Hemiptera: Cercopidae) in *Brachiaria* spp. Lina M. Aguirre, César Cardona, John W. Miles, and Guillermo Sotelo 1871

Influence of the corn resistance gene Mv on the fitness of *Peregrinus maidis* (Hemiptera: Delphacidae) and on the transmisión of Maite mosaic virus (Rhabdoviridae: Nucleorhabdovirus). C.H.V. Higashi, J.L. Brewbaker, and A. Bressan 1878

Effects of two Bt rice lines T2A-1 and TIC-19 on the ecological fitness and detoxification enzymes of *Nilaparvata lugens* (Hemiptera: Delphacidae) from different populations. Yajun Yang, Jingjing He, Biqin Dong, Hongxing Xu, Qiang Fu, Xusong Zheng and Zhongxian Lu 1887

The resistance and correlation analysis to three species of cereal aphids (Hemiptera: Aphididae) on 10 wheat varieties or lines. Xiang-Shun Hu, Mike A. Keller, Xiao-Feng Liu 1894

Stored product

Insecticidal efficacy of silica gel with *Juniperus oxycedrus* spp. *Oxycedrus* (Pinales: Cupressaceae) essential oil against *Sitophilus oryzae* (Coleoptera: Curculionidae) and *Tribolium confusum* (Coleoptera: Tenebrionidae). Christos G. Athanassiou, Nickolas G. Kavallieratos, Epameinondas Evergetis, Anna-Maria Katsoula, and Serkos A. Haroutounian 1902

Variation in susceptibility of field strains of three stored grain insect species to spinosad and chlorpyrifos-Methyl plus deltamethrin on hard red winter wheat. Blossom Sehgal, Bhadriraju Subramanyam, Frank H. Arthur, and Bikram S. Gill 1911

Efficacy and application considerations of selected residual acaricides against the mold mite *Tyrophagus putrescentiae* (Acari: Acaridae) in simulated retail habitats. Jessica A. Freitag and Stephen A. Kells 1920

Veterinary entomology

An artificial diet for rearing *Cochliomyia macellaria* (Diptera: Calliphoridae). M.F. Chaudhury and S.R. Skoda 1927

Short communication

Host status and fruit odor response of *Drosophila suzukii* (Diptera: Drosophilidae) to figs and mulberries. Doris Yu, F.G. Zalom, and K.A. Hamby 1932

Phytopathology 103(7):2013.

Review

- Citrus huanglongbing: A newly relevant disease presents unprecedented challenges. N. Wang and P. Trivedi 652

Analytical and theoretical plant pathology

- Accounting for the economic risk caused by variation in disease severity in fungicide dose decisions, ex-emplified for *Mycosphaerella graminicola* on winter wheat. D.E. te Beest, N.D. Paveley, M.W. Shaw, and F. van den Bosch 666

Bacteriology

- Strains of *Pseudomonas syringae* pv. Syringae from pea are phylogenetically and pathogenically diverse. A. Martín-Sanz, M. Pérez de la Vega, J. Murillo, and C. Caminero 673

Disease control and pest management

- Mechanisms regulating grain contamination with trichothecenes translocated from the stem base of wheat (*Triticum aestivum*) infected with *Fusarium culmorum*. M. Winter, B. Koopmann, K. Doll, P. Karlovsky, U. Kropf, K. Schluter, A. von Tiedemann 682

- The usefulness of fungicide mixtures and alternation for delaying the selection for resistance in populations of *Mycosphaerella graminicola* on winter wheat: A modeling analysis. P.H.F. Hobbelen, N.D. Paveley, R.P. Oliver, and F. van den Bosch 690

Ecology and epidemiology

- Effects of frequency of "extreme" temperature highs on development of soybean rust. M.R. Bonde, S.E. Nester, and D.K. Berner 708

- Temperature regulates the initiation of Chasmothecia in powdery mildew of strawberry. B. Asalf, D.M. Gadoury, A.M. Tronsmo, and A. Stensvand 717

Genetics and resistance

- Ciborinia camelliae* (Sclerotiniaceae) induces variable plant resistance responses in selected species of *Camellia*. M. Denton-Giles, R.E. Bradshaw, and P.P. Dijkwel 725

- Nonhost resistance of *Arabidopsis thaliana* Against *Alternaria alternata* involves both pre and postinvasive defenses but is collapsed by AAL-toxin in the absence of LOH2. M. Egusa, T. Miwa, H. Kaminaka, Y. Takano, and M. Kodama 733

Population biology

- Signatures of recombination in clonal lineages of the citrus brown spot pathogen, *alternaria alternata* sensu lato. J.E. Stewart, K.A. Thomas, C.B. Lawrence 741

- Sclerotinia sclerotiorum* populations infecting canola from China and the United States are genetically and phenotypically distinct. R.N. Attanayake, P.A. Carter, D. Jiang 750

- Erratum 762

Plant physiology 162(4):2013.

On the inside. Peter V. Minorsky 1765

Editorial

Plant physiology welcomes its new topical reviews. Mike Blatt 1767

Topical reviews

The agony of choice: How plants balance growth and survival under water-limiting conditions. Hannes Claeys and Dirk Inzé 1768

Improving photosynthesis. John R. Evans 1780

Breakthrough technologies

Measuring Arabidopsis chromatin accessibility using DNase I-polymerase chain reaction and DNase I-chip assays. Huan Shu, Wilhelm Gruisse, and Lars Hennig 1794

RootNav: Navigating images of complex root architectures. Michael P. Pound, Andrew P. French, Jonathan A. Atkinson, Darren M. Wells, and Tony Pridmore 1802

An improved simplified high-sensitivity quantification method for determining brassinosteroids in different tissues of rice and Arabidopsis. Peiyong Xin, Jijun Yan, Jinfang Chu, Cunyu Yan 2056

Research reports

Export of salicylic acid from the chloroplast requires the multidrug and toxin extrusion-like transporter EDS5. Mario Serrano, Banjung Wang, Bibek Aryal 1815

Research articles

Biochemistry and metabolism

Dynamic adaption of metabolic pathways during germination and growth of lily pollen tubes after inhibition of the electron transport chain. Gerhard Obermeyer, Lena Fragner 1822

Transcriptomic and metabolic changes associated with photorespiratory ammonium accumulation in the model legume *Lotus japonicus*. Carmen M. Pérez-Delgado, Margarita García-Calderon, Diego H. Sánchez, Michael K. Udvardi, Marco Betti 1834

Simultaneous application of heat, drought, and virus to Arabidopsis plants reveals significant shifts in signaling networks. Christian Maximilian Prasch and Uwe Sonnewald 1849

A rice virescent-yellow leaf mutant reveals new insights into the role and assembly of plastid caseinolytic protease in higher plants. Hui Dong, Gui-Lin Fei, Cuan-Yin Wu 1867

Pepper arginine decarboxylase is required for polyamine and γ-aminobutyric acid signaling in cell death and defense response. Nak Hyun Kim, Beom Seok Kim, Byung Kook Hwang 2067

Cell biology

Following vegetative to embryonic cellular changes in leaves of Arabidopsis overexpressing leafy cotyledon2. Mistianne feeney, Lorenzo Frigerio, Yuhai Cui, Rima Menassa 1881

Hapless13, the *Arabidopsis* u1 adaptin, is essential for protein sorting at the trans-golgi network/early endosome. Jia-Gang Wang, Sha Li, Xin-Ying Zhao 1897

Visualization of BRI1 and BAK1(SERK3) membrane receptor heterooligomers during brassinosteroid signaling. Christoph A. Bucherl, G. Wilma van Esse, Alex Kruis 1911

Identification of a new class of lipid droplet-associated proteins in plants. Patrick J. Horn, Christopher N. James, Satinder K. Gidda 1926

Ecophysiology and Sustainability

Characterization of AtSTOP1 orthologous genes in tobacco and other plant species. Yoshinao Ohyama, Hiroki Ito, Yuriko Kobayashi 1937

Coordination between apoplastic and symplastic detoxification confers plant aluminum resistance. Xiao Fang Zhu, Gui Jie Lei, Zhi Wei Wang 1947

Ocean acidification alters the photosynthetic responses of a cocolithophorid to fluctuating ultraviolet and visible radiation. Peng Jim, Kunsnan Gao, Virginia E. Villafañem 2084

Nitrogen stress affects the turnover and size of nitrogen pools supplying leaf growth in a grass. Christoph Andreas Lehmeier, Melanie Wild, Hans Schnyder 2095

Genes, development, and evolution

Disruption of fumarylacetacetate hydrolase causes spontaneous cell death under short-day conditions in *Arabidopsis*. Chengyun Han, Chunmei Ren, Tiantian Zhi 1956

Brassinosteroid regulates seed size and shape in *Arabidopsis*. Wen-Bo Jiang, Hui-Ya Huang, Yu-Wei Hu, Wen-Hui, Lin 1965

Family genes regulate auxin transport in the shoot apical meristem and forming leaf primordial. Ming-Kun Chen, Rebecca L. Wilson, Klaus Palme 1978

Signaling and response

Cross-repressive interactions between SOC1 and the GATAs GNC and GNL/CGA1 in the control of greening, cold tolerance, and flowering time in *Arabidopsis*. René Richter, Emmanouil Bastakis, and Claus Schwechheimer 1992

The alteration of plant morphology by small peptides released from the proteolytic processing of the bacterial peptide TENGU. Kyoto Sugawara, Youhei Honma, Ken Komatsu 2005

Identification of genes involved in the response of *Arabidopsis* to simultaneous biotic and abiotic stresses. Nicky J. Atkinson, Catherine J. Lilley 2028

Ectopic expression of miR160 results in auxin hypersensitivity, cytokinin hyposensitivity, and inhibition of symbiotic nodule development in soybean. Marie Turner, Narasimha Rao Nizampatnam, Mathieu Baron 2042

The herbivore elicitor-regulated1 gene enhances abscisic acid levels and defenses against herbivores in *Nicotiana attenuata* plants. Son Truong Dinh, Ian T. Baldwin 2106

Lifting DELLA repression of *Arabidopsis* seed germination by nonproteolytic gibberellin signaling. Tohru Ariizumi, Amber L. Hauvermale, Sven K. Nelson, Atsushi Hanada 2125

Systems and synthetic biology

Elucidating rice cell metabolism under flooding and drought stresses using flux-based modeling and analysis. Meiyappan Lakshmanan, Zhaoyang Zhang, Bjayalaxmi Mohanty 2140

Addenda

Characterization of SOC1's central role in flowering by the identification of its upstream and downstream regulators. Immink R.G.H., Posé D., Ferrario S. 2151

Revista ceres 60(4):2013.

Biotecnologia vegetal / Vegetal biotechnology

Chemical sterilization in in vitro propagation of *Arundina bambusifolia* Lindl. and *Epidendrum ibaguense* Kunth. Donizetti Tomaz Rodrigues, Roberto Ferreira Novais, Víctor Hugo Alvarez Venegas, Ecila Mercês de Albuquerque Villani 447

Ciencia e tecnología de alimentos / Food science and technology

Atividade proteolítica de bactérias psicrotróficas em leites estocados em diferentes temperaturas. Thiago Braga Izidoro, Juliano Gonçalves Pereira, José Paes de Almeida Nogueira Pinto 452

Clínica médica e cirúrgica animal / Clinical and surgical animal medicine

Composite synthetic hydroxyapatite 30%, in two physical states, as dermal filler. Rodrigo Viana Sepúlveda, Andréa Pacheco Batista Borges, Ingrid Bitencourt Bohnenberger 458

Economia e extensao rural / Economy and rural extensión

Análise economica da terminacao de bovinos de corte em confinamentos no estado de Minas Gerais: Estudo de caso. Marcos Aurélio Lopes, Angelo Dias Brito Ribeiro, Tatiane Mendonça Nogueira 465

Engenharia agrícola / Agricultural engineering

Parameters of electrostatic spraying and its influence on the application efficiency. Robson Shigueaki Sasaki, Mauri Martins Teixeira, Cleyton Batista de Alvarenga 474

Engenharia florestal / Forestal engineering

Using different satellite imagery and classification techniques to assess the contribution of trees outside forests in the municipality of Maringá, Brazil. Betina Doubrawa, Ana Paula Dalla Corte, Carlos Roberto Sanquetta 480

Estadística / Statistics

Capacidade de combinacao de genitores de batata para caracteres de aparence e rendimento de tubérculos. Giovani Olegário da Silva, Vicenti Gonçalves Ney, Fábio Akiyoshi Suinaga 489

Fisiología e morfología vegetal / Plant physiology and morphology

Análise de crescimento e produtividade do pak choi cultivado sob diferentes doses de nitrogénio. Janaína Dartora, Vandeir Francisco Guimaraes, Deniele Marini 498

Fitossanidade / Plant protection

Severidade de doenças foliares e produtividade de genótipos de milho em resposta à adubacao nitrogenada. Gil Rodrigues dos Santos, Francismar Rodrigues Gama, Clebson Gomes Gonçalves, Artenisa Cerqueira Rodrigues, Evelynne Urzedo Leão, Aurenivia Bonifacio 505

Melhoramento vegetal / Plant breeding

Agronomic performance of 27 cocoa progenies and plant selection based on productivity, self-compatibility and disease resistance. Milton Macoto Yamada, José Luis Pires, Fábio Gelape Faleiro, Uilson Vanderlei Lopes, Mariosvaldo Morais Macedo 514

Producao e reproducao animal / Animal production and reproduction

Producao de matéria seca da braquiária de acordo com os atributos químicos de um latossolo em Selvíria, Mato Grosso do sul. Rafael Montanari, Morel de Passos e Carvalho, Marcelo Carvalho Minhoto Teixeira Filho, Flávio Carlos Dalchiavon 519

Producao vegetal / Plant production

Crescimento e producao da bananeira 'Thap Maeo' (AAB) durante dois ciclos de producao no vale do Sao Francisco. Marlon Jocimar Rodrigues da Silva, Ildenio dos Santos Gomes, Evando Amparo de Souza, Valtemir Goncalves Ribeiro 528

Solos e nutricao de plantas / Soil science and plant nutrition

Altura de manejo de papua e propriedades de solo em sistema de integracao lavoura-pecuária. Diego Bortolini, Joao Alfredo Braida, Jussara Maria Ferrazza 535

Producao de forragem verde hidroponica de milho, utilizando substratos organicos e água residiária de bovinos. Marco Antonio Píccolo, Fábio Cunha Coelho, Geraldo do Amaral Gravina, Cláudio Roberto Marciano, Otacílio José Passos Rangel 544

Proposta metodológica para o cálculo de espaçamento entre sulcos de mulching vertical. Rafael Carlos dos Santos, Caetano Marciano de Souza, Marcos Antonio Gomes Silva 552

Silicate fertilizer and irrigation depth in corn production. Edvaldo Eloy Dantas Júnior, Lucia Helena Garófala Chaves, Fernando Antonio Melo da Costa, Hans Raj Gheyi 563

Teores de nutrientes de dois cultivares de oliveira durante o crescimento vegetativo e o florescimento. Raoni Pereira de Carvalho, Maria do Céu Monteiro da Cruz, Adelson Francisco de Oliveira, Miriã Cristina Pereira Fagundes 569

Comunicacoes / Short communications**Engenharia agrícola / Agricultural engineering**

Comparacao entre dois penetrometros na avaliacao da resistencia mecanica do solo à penetracao. Renato Paiva de Lima, Maurício Javier de León, Anderson Rodrigo da Silva 577

Fitossanidade / Plant protection

Cobertura morta e adubacao organica na producao de alface e supressao de plantas daninhas. Izabel Cristina Pereira Vaz F., Alisson Vinicius de Araujo, Leonardo David Tuffi Santos 582

Nível de infestacao de moscas-das-frutas em faixa de fronteira, no Rio Grande do sul. Nayma Pinto Dias, Fernando Felisberto da Silva, Robson Antonio Botta 589

Revista de la Universidad de La Salle 61:2013.

Editorial

Universidad disciplinar, interdisciplinar o transdisciplinar?. Hermano Fabio Humberto Coronado Padilla, Fsc.	7
Reacreditación de la Universidad de La Salle. Patricia Martínez Barrios	13
De la universidad transdisciplinar o de las escuelas de pensamiento. Hermano Fabio Humberto Coronado Padilla, Fsc.	21
Aproximación a las ciencias de la complejidad. Óscar Augusto Elizalde Prada	45
Modo 3 de producción de conocimiento: Implicaciones para la universidad de hoy. Wilson Acosta Valdeleón, Clara Carreño Manosalva	67
Pensar una ontología para la ciencia: Una mirada desde los hilozoístas jónicos. Yebraíl Castañeda Lozano	89
Ideario en la senda de la interdisciplinariedad y la transdisciplinariedad. Andrzej Lukomski Jurczynski	109
El ejercicio de la ciencia como tarea interdisciplinar y transdisciplinar. Milton Armando Reyes Villamil	125
Lo trans de las disciplinas: Emancipación del saber. Amparo Novoa Palacios	137
La literatura: Una provocación dialógica. Diógenes Fajardo Valenzuela	155
Disciplinariedad y transdisciplinariedad para el desarrollo económico colombiano. Luis Nelson Beltrán Mora, Luis Fernando Ramírez Hernández	173
La transversalidad curricular y su papel en la formación profesional de administradores de empresas. Javier Francisco Rueda Galvis	199
La formación del ciudadano en el siglo XXI: Una perspectiva universitaria. Hermano Alberto Prada Sanmiguel, Fsc.	213
Escuelas de pensamiento, universidad e ingeniería. Jorge Augusto Coronado Padilla	245
Agentes de enfermedad: Hallazgos, relaciones, escuelas y profesiones. Luis Carlos Villamil Jiménez	285
Peter Robert Ellis epidemiología y economía veterinaria: Una escuela de pensamiento para el desarrollo. Luis Carlos Villamil Jiménez	315

Galería

Segunda fase de las escuelas de pensamiento	341
Primeros profesores titulares	377
Un equipo de excelencia	385
Instrucciones para autores	393