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Greenhouse-grown 'Santo' cilantro plants. For more information, read "Reducing Preharvest Bolting in Openfield-grown Cilantro (*Coriandrum sativum* L. cv. Santo) through Use of Growth Regulators" by Meyering et al. that begins on p. 63. Photo courtesy of the authors.

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Pictured on the cover of this month's *HortScience*: (A) annual pollinator-attracting companion plantings, (B) cucumber culls, (C) installation of perennial companion plantings, and (D) perennial companion plantings 1 year after establishment. For additional information, read the paper by Montoya Jr., et al., that begins on p. 164. Images courtesy of the authors.

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In vitro rooting and acclimatization of lacy tree philodendron. In vitro plantlets (A, B). Acclimatized plantlets after 30 d (C). Detailed information can be found in the paper by Alhussein et al. that begins on p. 294. Photo courtesy of the authors.

Madhurya
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ON THE COVER

Exfoliating bark on *Pinus cembra* 'Herman' (Prairie Statesman® Swiss stone pine) main trunk displaying outer greyish-tan color with orange undertone inner bark. Prairie Statesman® Swiss stone pine is a release from the North Dakota State University Woody Plant Improvement Program. For more information, read the paper by West et al. that begins on p. 595.

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'Eclipse' Thornless Semi-erect Blackberry (*Rubus* subg. *Rubus* Watson). For more information about this cultivar, read the article by Finn et al. that begins on p. 749. Photo courtesy of the authors.

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In the paper by Zhong et al. that begins on p. 945, the authors observed dynamic changes in inflorescence and anther development in the chinquapin (*Castanea henryi*) using stereomicroscopy, light microscopy, and transmission electron microscopy. The cover image shows the morphology of staminate catkins and flower clusters corresponding to the anther development period. Photo courtesy of the authors.

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In their paper beginning on p. 1045, Ferrarezi et al. report on research being conducted on microirrigation equipment systems used for okra cultivation in the U.S. Virgin Islands. The cover image shows an irrigated okra field (background). The inset images are: close-up image of okra in flower and fruit (top) and the drip irrigation system (bottom). Images were taken at the University of the Virgin Islands campus in St. Croix and are courtesy of the authors.

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ON THE COVER

In their paper beginning on p. 1206, Kurtz et al. evaluate the phenotypic and genotypic diversity of selfed and outcrossed hemp (*Cannabis sativa*) strains for CBD production purposes. Cover photo: selfed progeny of hemp strain parent plant Candida (CD-1) × Candida (CD-1) showing leaf variegation, a recessive genetic trait. Photo courtesy of the authors.

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In their paper beginning on p. 1533, Zhang et al. introduce 3 early flowering iris cultivars (*Iris germanica* L.). Image courtesy of the authors.

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- 1683 Hydroponic Fertilizer Supply for Basil Using Controlled-release Fertilizer
Fernanda Trientini and Paul R. Fisher
- 1692 Changes in Sugar Concentrations of Seed and Pod Tissue During Development in Snap and Dry Beans (*Phaseolus vulgaris* L.)
Wesley Gartner, Paul C. Bethke, Theodore J. Kisha, and James Nienhuis

- 1698 A Special Summer Pruning Method Significantly Increases Fruit Weight, Ascorbic Acid, and Dry Matter of Kiwifruit ('Jinyan', *Actinidia eriantha* × *A. chinensis*)
Guang-Lian Liao, Xiao-Biao Xu, Qing Liu,
Min Zhong, Chun-Hui Huang, Dong-Feng Jia,
and Xue-Yan Qu
- 1703 Production of Tetraploid and Triploid Hemp
Lauren E. Kurtz, Mark H. Brand,
and Jessica D. Lubell-Brand
- 1708 Effects of Spray Volume and Application Frequency on Insecticide Efficacy Against Adult Western Flower Thrips (*Frankliniella Occidentalis*) under Greenhouse Conditions
Devin L. Radosevich, Raymond A. Cloyd,
and Nathan J. Herrick

CULTIVAR AND GERMPLASM RELEASES

- 1709 'Tift PA17', 'Tift PA18', and 'Tift PA19' Ornamental
Pennisetum alopecuroides
Wayne W. Hanna and Brian M. Schwartz

ON THE COVER

In their paper beginning on p. 1709, Hanna and Schwartz introduce new releases of ornamental "fountain grass" [*Pennisetum alopecuroides* (L.)]. Shown on the cover is 'Tift PA17'. Photo courtesy of the authors.

REPORTS

- 1722 Restricting Phosphorous Can Manage Growth and Development of Containerized Sweet Basil, Dill, Parsley, and Sage
Christopher J. Currey, Vincent C. Metz, Nicholas J. Flax, Alex G. Litvin, and Brian E. Whipker
- 1730 Effects of Within-row Intercropping with Snow Peas on Yield and Quality of Cherry Tomatoes in an Organic High Tunnel Production System
Yun Kong, Katherine Schiestel, David Llewellyn, and Youbin Zheng
- 1737 Landscape Performance, Flowering, and Female Fertility of Eight Trailing Lantana Varieties Grown in Central and Northern Florida
Sandra B. Wilson, Carlee Steppe, Zhanao Deng, Keri Druffel, Gary W. Knox, and Edzard van Santen
- 1744 Tomato Growth, Yield, and Root Development, Soil Nitrogen and Water Distribution as Affected by Nitrogen and Irrigation Rates on a Florida Sandy Soil
Ibukun T. Ayankojó, Kelly T. Morgan, Davie M. Kadyampakeni, and Guodong D. Liu
- 1756 An Updated Host Differential Due to Two Novel Races of *Diplocarpon rosae* Wolf, the Causal Agent of Rose Black Spot Disease
David C. Zlesak, Darcy Ballantyne, Matthew Holen, Andrea Clark, Stan C. Hokanson, Kristen Smith, Jason D. Zurn, Nahla V. Bassil, and James M. Bradeen
- 1759 Using Amaranth as a Model Plant for Evaluating Imperfect Storages: Assessment of Solar-refrigerated and Evaporatively-cooled Structures in India
Priyanka Sharad Mahangade, Indra Mani, Randolph Beaudry, Norbert Müller, and Sangeeta Chopra
- 1766 Harvest Time and Postharvest Behavior of Six Japanese Nonstringent Persimmon Cultivars Grown under Mediterranean Conditions
Ayoub Fathi-Najafabadi, Cristina Besada, Rebeca Gil, and Alejandra Salvador
- 1772 Greenhouse Carbon Dioxide Supplementation with Irrigation and Fertilization Management of Geranium and Fountain Grass
Hardeep Singh, Megha R. Poudel, Bruce Dunn, Charles Fontanier, and Gopal Kakani
- 1781 Sowing Green Seed Without Stratification Does Not Shorten Juvenility or Increase Plant Size in Common Lilac (*Syringa vulgaris*)
Tyler C. Hoskins, Jason D. Lattier, and Ryan N. Contreras
- 1788 Field Performance of Backcross (BC₁) Blueberry Hybrids of *Vaccinium padifolium* (Section *Hemimyrtilus*) with *V. corymbosum*/*V. angustifolium*
Mark K. Ehlenfeldt, Joseph Kawash, and James Polashock
- 1794 Variation of Endogenous Hormones during Flower and Leaf Buds Development in 'Tianhong 2' Apple
Jinxin Wang, Tao Luo, He Zhang, Jianzhu Shao, Jianying Peng, and Jianshe Sun
- 1799 Potential Benefits of Silicon Nutrition to Hydroponically Grown Sweet Basil
Yuan Li, Joseph Heckman, Andrew Wyenandt, Neil Mattson, Edward Durner, and A.I. Both
- 1804 Early Performance of Jujube Drying and Multipurpose Cultivars in the Southwestern United States
Shengrui Yao, Robert Heyduck, Steven Guldán, and Govinda Sapkota
- 1811 Screening Newly Developed Bermudagrasses for Host Plant Resistance against Fall Armyworm (Lepidoptera: Noctuidae)
Gurjit Singh, Shimat V. Joseph, and Brian Schwartz
- 1817 pH Buffering in Pine Bark Substrates as a Function of Particle Size
Magdalena Pancercz and James E. Altland
- 1822 Is Organic Certification Important to Farmers' Market Shoppers or Is Eco-friendly Enough?
Kynda R. Curtis, Tatiana Drugova, Trevor Knudsen, Jennifer Reeve, and Ruby Ward
- 1832 Effect of Extended Photoperiod with a Fixed Mixture of Light Wavelengths on Tomato Seedlings
Humberto Aguirre-Becerra, Juan Fernando García-Trejo, Cristina Vázquez-Hernández, Aurora Mariana Alvarado, Ana Angélica Feregrino-Pérez, Luis Miguel Contreras-Medina, and Ramón G. Guevara-Gonzalez
- 1840 An Artificial Inoculation Method to Select Mature Onion Bulbs Resistant to Fusarium Basal Rot
Subhankar Mandal and Christopher S. Cramer
- 1848 Carrier Volume and Nozzle Effect on 2,4-D and Glufosinate Performances in Hazelnut Sucker Control
Larissa Larocca de Souza and Marcelo L. Moretti
- 1853 Factors Affecting Vegetative Propagation of Wintersweet (*Chimonanthus praecox*) by Softwood Cuttings
Huan Hu, Nan Chai, Haoxiang Zhu, Rui Li, Renwei Huang, Xia Wang, Daofeng Liu, Mingyang Li, Xingrong Song, and Shunzhao Sui
- 1861 Papaya (*Carica papaya* L.) Leaf Area Estimation and Single-leaf Net Photosynthetic CO₂ Assimilation Rate Following Leaf Defoliation and Fruit Thinning
Lili Zhou, Maria Eloisa Q. Reyes, and Robert E. Paull

CULTIVAR AND GERMPLASM RELEASES

- 1865 Peach Cultivar Presivac-1
Jose Martínez-Calvo and María L. Badenes
- 1867 'Zhongli No. 3': A Mid-season Plum Cultivar from ZFRI-CAAS
Zhenyu Huang, Fei Shen, Lehan Xia, Long Chen, Zexuan Cui, and Yuling Chen

- 1869 *Magnolia wufengensis* 'Jiaolian': A New Magnolia Cultivar with Lotus-shaped Flowers
Xiaojing Duan, Zhonglong Zhu, Ziyang Sang, Faju Chen, and Luyi Ma
- 1871 *Cercocarpus montanus* 'USU-CEMO-001': A New Sejo Supreme™ Plant
Asmita Paudel, Youping Sun, Larry A. Rupp, and Richard Anderson

ON THE COVER

Due to its irregular shape, determining leaf area in papaya is difficult. In their paper beginning on p. 1861, Zhou et al. discuss a possible solution. The cover image shows: papaya leaf morphology (A) and veins used to estimate the total leaf area (B). Image courtesy of the authors.

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REVIEWS

- 1880 Autocorrelation of Production Components of Irrigated Garlic Crop
Job Teixeira de Oliveira, Rubens Alves de Oliveira, Domingos Sarvio Magalhães Valente, Isabela da Silva Ribeiro, and Paulo Eduardo Teodoro

REPORTS

- 1882 Verification and Modification of a Model to Predict Bitter Pit for 'Honeycrisp' Apples
Richard P. Marini, Tara Auxt Baugher, Megan Muehlbauer, Sherif Sherif, Robert Crassweller, and James R. Schupp
- 1888 Supplementary Blue and Red LED Narrowband Wavelengths Improve Biomass Yield and Nutrient Uptake in Hydroponically Grown Basil
Hunter A. Hammock, Dean A. Kopsell, and Carl E. Sams
- 1898 Nitrogen Application Modifies the Seed and Oil Yields and Fatty Acid Composition of *Nicotiana tabacum*
Yingchao Lin, Dejun Kong, Zhihong Wang, Yi Chen, Zhixiao Yang, Chun Wu, Hui Yang, and Lili Chen
- 1903 Variation in Phosphorus Availability, Root Architecture Attributes, and Onset of Storage Root Formation among Sweetpotato Cultivars
Arthur Villordon, Jeffrey C. Gregorie, and Don LaBonte
- 1912 Multifactor Models for Improved Prediction of Phenological Timing in Cold-climate Wine Grapes
James A. Schrader, Paul A. Domoto, Gail R. Nonnecke, and Diana R. Cochran
- 1926 Predicting Hollow Heart Incidence in Triploid Watermelon (*Citrullus lanatus*)
Marlee A. Trandel, Penelope Perkins-Veazie, and Jonathan Schultheis
- 1931 Phytophthora Root Rot Resistance and Its Correlation with Fruit Rot Resistance in *Capsicum annuum*
Rachel P. Naegele and Mary K. Hausbeck
- 1938 Exogenous Gibberellic Acid and Cytokinin Effects on Budbreak, Flowering, and Yield of Blackberry Grown under Subtropical Climatic Conditions
Syuan-You Lin and Shinsuke Agehara
- 1946 Potential of Biochar Application to Mitigate Salinity Stress in Eggplant
Ved Parkash and Sukhbir Singh
- 1956 Nodulation and Plant Growth of *Shepherdia × utahensis* 'Torrey' Topdressed with Controlled-release Fertilizer
Ji-Jhong Chen, Heidi Kratsch, Jeanette Norton, Youping Sun, and Larry Rupp

- 1963 Maximizing Productivity of Greenhouse-grown Hydroponic Lettuce during Winter
Alexander Miller, Petrus Langenhoven, and Krishna Nemali
- 1970 Pollination Timing and Hybrid Seed Production of *Neoregelia*
Chyun-Chien Liang, Tzu-Yao Wei, and Der-Ming Yeh
- 1974 Shortening the Production Cycle of Clematis
Uttara C. Samarakoon and James E. Faust
- 1980 Floral Visitors to *Helianthus verticillatus*, a Rare Sunflower Species in the Southern United States
Nicolas C. Strange, John K. Moulton, Ernest C. Bernard, William E. Klingeman, III, Blair J. Sampson, and Robert N. Trigiano
- 1987 Kaolin Particle Film Affects Grapevine Berry Quality in cv. Meili in Humid Climate Conditions
Ying Wang, Tingting Xue, Xing Han, Lingxiao Guan, Liang Zhang, Hua Wang, and Hua Li
- 2001 Nutraceutical Properties of Pecan Kernels Are Affected by Soil Zinc Fertilizer Application
Yuqing Wang, Richard J. Heerema, James L. Walworth, Barry Dungan, Dawn VanLeeuwen, and F. Omar Holguin
- 2008 Identities of and Phenotypic Variation for Epicuticular Waxes among Leaves and Plants from Inbred Onion Populations
Jiffinvir Khosa, Derek Hunsaker, and Michael J. Havey
- 2011 Grape Pruning Material Improves Root Development and Soil Microecology in 'Shine Muscat' Grape Soils
Hong Su, He Zhang, Chaoxia Wang, Jianquan Huang, Jiayin Shang, Na Zhang, Dan Wang, and Kai Li
- 2023 Deposition and Transformation of Nitrogen after Soil Fumigation with Ethanedinitrile
Mary C. Stevens, Rui Yang, and Joshua H. Freeman
- 2028 Sweet Orange Orchard Architecture Design, Fertilizer, and Irrigation Management Strategies under Huanglongbing-endemic Conditions in the Indian River Citrus District
Rhuano S. Ferrarezi, Arun D. Jani, H. Thomas James III, Cristina Gil, Mark A. Ritenour, and Alan L. Wright
- 2037 ⁶⁰Co Irradiation Influences Germination and Phenotype of Three *Pavonia* Species
Yongjun Yue and John M. Ruter

CULTIVAR AND GERmplasm RELEASES

- 2045 *Comptonia peregrina* 'Blue Sea': A Compact Sweet Fern with Blue-green Foliage
Jessica D. Lubell-Brand and Mark H. Brand
- 2047 'Xiaohe 1': A New Walnut Cultivar with High Fruit Setting Rate of Secondary Bud Germination after the Harm of Late Frost
Jing Wu, Qi He, Caihong Zhang, and Gui Wang

2052 NuMex LotaLutein, a Lutein-rich Serrano Pepper
Ivette Guzman, Danise Coon, Krystal Vargas,
and Paul W. Bosland

2056 'Mountain Crown': Late Blight and *Tomato mosaic*
virus-resistant Plum Hybrid Tomato and Its Parent,
NC 1 Plum ..
Dilip R. Panthee

MISCELLANEOUS

2058 Corrigendum

ON THE COVER

Budbreak and flowering of 'Natchez' blackberry grown under subtropical climatic conditions affected by spray application of gibberellin acid. For more information, see the paper beginning on p. 1938 by Lin and Agehara. Photo courtesy of the authors.