

# HortScience

American Society for Horticultural Science

Volume 49, Number 1

January 2014



## REPORTS

### Breeding, Cultivars, Rootstocks, and Germplasm Resources

- 4 Incidence and Severity of Asiatic Citrus Canker on Diverse *Citrus* and *Citrus*-related Germplasm in a Florida Field Planting  
Ed Stover, Randall Driggers, Matthew L. Richardson, David G. Hall, Yongping Duan, and Richard F. Lee
- 10 Development of Downy Mildew-resistant Cucumbers for Late-season Production in the Northeastern United States  
William L. Holdsworth, Carly F. Summers, Michael Glos, Christine D. Smart, and Michael Mazourek
- 18 Baby Leaf Lettuce Germplasm Enhancement: Developing Diverse Populations with Resistance to Bacterial Leaf Spot Caused by *Xanthomonas campestris* pv. *vitians*  
Ryan J. Hayes, Mark A. Trent, BeiQuan Mou, Ivan Simko, Samantha J. Gebben, and Carolee T. Bull
- 25 Mapping for Quantitative Trait Loci and Major Genes Associated with Fresh-cut Browning in Apple  
Rui Sun, Hui Li, Qiong Zhang, Dongmei Chen, Fengqiu Yang, Yongbo Zhao, Yi Wang, Yuepeng Han, Xinzhong Zhang, and Zhenhai Han
- 31 A Rapid Greenhouse Screening Method to Identify St. John's Wort (*Hypericum perforatum*) Accessions Resistant to *Colletotrichum gloeosporioides*  
Vincent V. Michel, Nicole Debrunner, and Xavier Simonnet
- Crop Production**
- 35 Weed Management Practices for Organic Production of Trailing Blackberry. II. Accumulation and Loss of Biomass and Nutrients  
Renee H. Harkins, Bernadine C. Strik, and David R. Bryla
- 44 Assessment of Root System Development among Four Ornamental Tree Species through Time via X-ray Computed Tomography  
Taryn L. Bauerle and Michela Centinari

- 51 Effects of Daily Light Integral and Canopy Density on Shoot Growth and Development in a Poinsettia (*Euphorbia pulcherrima* Willd. ex. Klotsch) Stock Plant Canopy  
Joaquin A. Chong, Uttara C. Samarakoon, and James E. Faust
- 55 Mechanical Harvesting of Table Olives: Harvest Efficiency and Fruit Quality  
Isaac Zipori, Arnon Dag, Yizhar Tugendhaft, and Reuven Birger
- Disease and Pest Management**
- 59 Phloem Production in Huanglongbing-affected Citrus Trees  
Craig Brodersen, Cody Narciso, Mary Reed, and Ed Etxeberria
- 65 Quantitative Distribution of *Candidatus Liberibacter asiaticus* in the Aerial Parts of the Huanglongbing-infected Citrus Trees in Texas  
Madhurababu Kunta, John V. da Graça, Nasir S.A. Malik, Eliezer S. Louzada, and Mamoudou Sétamou
- Marketing and Economics**
- 69 The Effects of Individual Environmental Concerns on Willingness to Pay for Sustainable Plant Attributes  
Hayk Khachatryan, Ben Campbell, Charles Hall, Bridget Behe, Chengyan Yue, and Jennifer Dennis
- Postharvest Biology and Technology**
- 76 Prestorage Conditioning and Diphenylamine Improve Resistance to Controlled-atmosphere-related Injury in 'Honeycrisp' Apples  
Carolina Contreras, Nihad Alsmairat, and Randy Beaudry
- Propagation and Tissue Culture**
- 82 In Vitro Propagation and Detection of Somaclonal Variation in *Phalaenopsis gigantea* as Affected by Chitosan and Thidiazuron Combinations  
Samira Samarfar, Mihdzar A. Kadir, Saleh B. Kadzimin, Halimi M. Saud, Seyed Ali Ravanfar, and Mahmoud Danace

Image Analysis Systems for Plant Science  
since 1991



www.regentinstruments.com  
sales@regentinstruments.com



REGENT  
HORTA SUITE

Need  
More Than One  
Software Program?

Take Advantage  
of Our New Suites.



WinSCANOPY™  
WinFOLIA™  
WinSEEDLE™  
WinRHIZO™  
WinRHIZO™ Tron

### The HORTA SUITE

- Measures and Analyses leaves, needles, seeds, roots and Arabidopsis seedlings
- Quantifies pest damages
- Performs color analysis
- Analyses low and high plant canopy

### Soil Management, Fertilization, and Irrigation

- 89 Effect of Controlled-release and Soluble Fertilizer on Tomato Production and Postharvest Quality in Seepage Irrigation  
Luther C. Carson, Monica Ozores-Hampton,  
Kelly T. Morgan, and Steven A. Sargent

### CULTIVAR AND GERMPLASM RELEASES

- 96 'Chilongzhua' and 'Yanzhizui': Two Interspecific Hybrid Cultivars of *Michelia*  
Chun-Yan Han, Gui-Fen Luo, Li Ji, Wei-Bang Sun,  
Xu-Yang Fu, and Cong-Ren Li
- 98 'Hahong' Nectarine  
Ji Hae Jun, Jung Hyun Kwon, Eun Young Nam,  
Kyeong Ho Chung, Ik Koo Yun, Seok Kyu Yun,  
Yong Bum Kwack, Sung Jong Kim, and Sang Jo Kang
- 101 Phytophthora Fruit Rot-resistant Watermelon Germplasm Lines USVL489-PFR, USVL782-PFR, USVL203-PFR, and USVL020-PFR  
Chandrasekar S. Kousik, Kai-Shu Ling, Scott Adkins,  
Craig G. Webster, and William W. Turechek

- 105 'VL Tamatar 4': New Tomato Cultivar for Open-field and Greenhouse Cultivation  
Nirmal K. Hedau, Shri Dhar, Vinay Mahajan,  
Pawan K. Agarwal, and Jagdish C. Bhatt
- 107 509-45-1, a *Capsicum annuum* Pepper Germplasm Containing High Concentrations of Capsinoids  
Robert L. Jarret, Jason Bolton, and L. Brian Perkins

#### ON THE COVER

In their paper (p. 96), Han et al. of the Kunming Botanical Garden, Yunnan, China, describe two new interspecific hybrid cultivars of *Michelia*.