A publication of the International Society for Horticultural Science

Chronica Horticulturae

Horticultural highlights

Annual Board report to members 2023/24

Symposia and workshops

Asian Horticultural Congress • Sap Flow • Moringa • Vertical Farming • Kiwifruit

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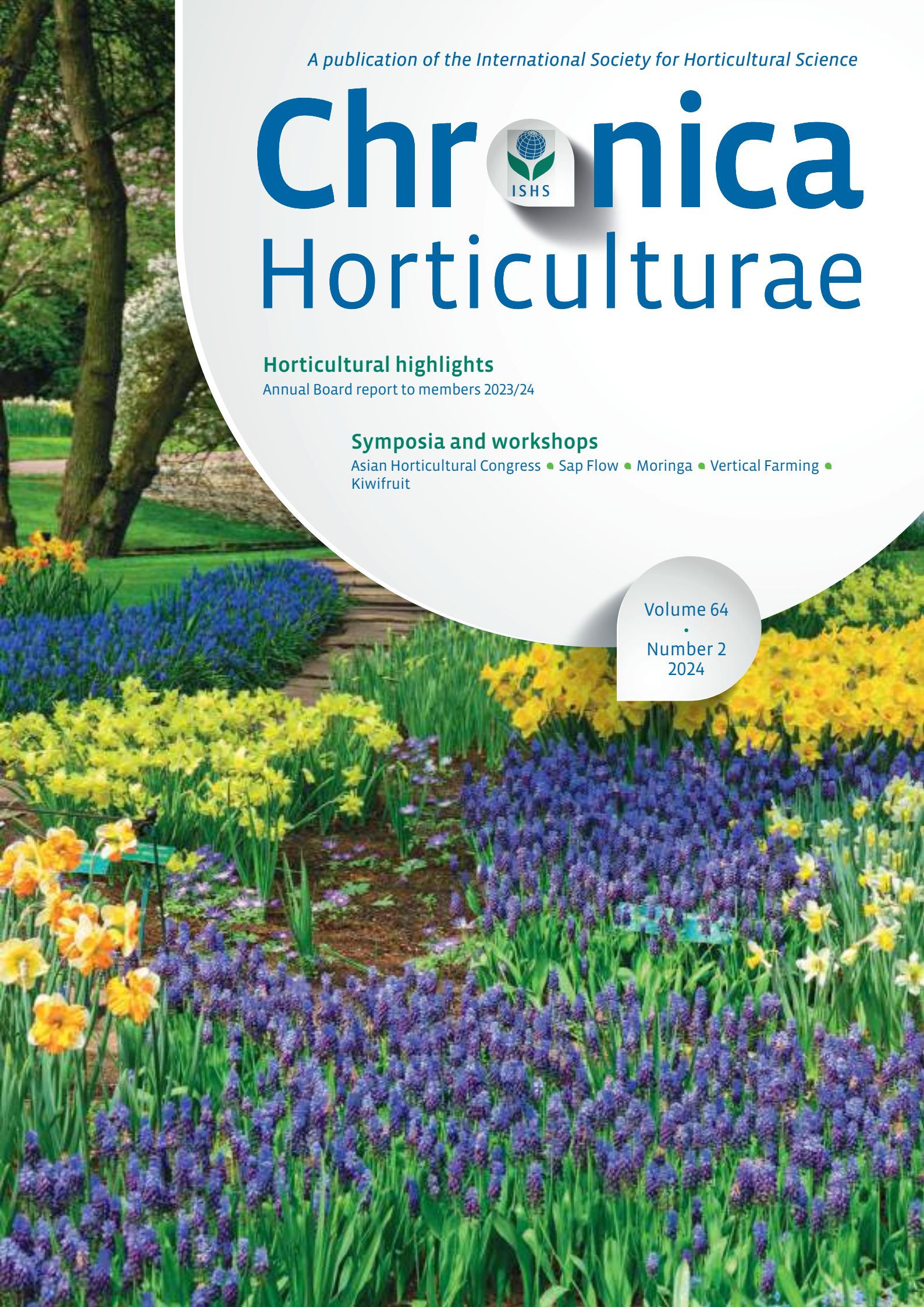

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Fruits – International Journal of Tropical and Subtropical Horticulture
Fruits – International Journal of Tropical and Subtropical Horticulture accepts original research articles and reviews on tropical and subtropical horticultural crops. The Journal is available in print + online Open Access. Additional information can be viewed on **www.ishs.org/fruits**.

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Additional information can be viewed on the PubHort website **www.pubhort.org**.

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Cover photograph: Blue and yellow spring flowers in garden "Keukenhof" in the Netherlands (copyright: Neirfy/Shutterstock)

› From the cockpit

Peter J. Batt, Editor, *Chronica Horticulturae*

› Peter J. Batt

Greetings and welcome to the June edition of *Chronica Horticulturae*.

In this edition we break from tradition – yet again – to bring you a summarised annual report from the Board. As each member of the Board is responsible for a specific portfolio, even although we often work in teams or special committees, all Board members – including our Executive Director and the President of IHC2026 – will each provide you with a brief report on the activities that they have undertaken over the past 18 months. With our membership survey clearly indicating a desire from our membership base to know what is going on, we hope that this initiative will address some of your concerns.

As an integral part of the annual report, we are delighted to announce the formation of the ISHS Young Minds Committee. Comprised of two young representatives from each of the six different regions around the world, the ISHS Young Minds Committee will work with the ISHS Board to deliver outcomes that meet the needs of emerging horticulturists.

In this edition, we continue to recognise the best oral presentations and posters by our Young Minds at our many symposia and international and regional congresses. Plant breeding and genotyping continues to present opportunities for young scientists, with Lijun Zhou exploring mechanisms for the synthesis of fragrance in roses, Yi Lv overcoming some of difficulties associated with the distant hybridisation of *Hemerocallis* and *Lycoris* and Yu Kyeong Shin looking at the selection of multifaceted genotypes of cabbage for commercial breeding. Elena Gabriela Stan tests and evaluates some novel processed jujube products for the European market, while Bruno Telli Ceccato explores the application of electrohydrodynamics in the preparation of a non-aqueous emulsion containing moringa. In protected environments, Agata Morelli explores the use of bumblebees as potential pollinating agents in vertical farming systems, while Elisabet Freyja Henriksson undertakes a life cycle assessment of a pilot aquaponic system. Robab Mahmoudi explores the use and application of black soldier fly frass while Sara Benchaa focuses on optimizing vernalization and cultivation conditions for the greenhouse production of *Anemone coronaria* and *Ranunculus asiaticus*.

Within this edition, we feature not one but indeed two Spotlight articles from our honoured members. Christian Patermann elucidates on his experiences with ISHS as a Director of Agriculture, Food, Forestry, Fisheries and Biotechnology within the European Union. Of particular note, Christian highlights the failure of agribusinesses worldwide to appropriately value the role of horticulture in strategic discussions on food, feed, fibre and fuel and indeed, the very future of our planet.

Known to most of us as a result of the many roles he has held within ISHS, as a lecturer and as an international asparagus consultant, Mike Nichols shares some of his life experiences. As Mike so eloquently describes, ISHS provides an opportunity for like-minded people to meet at specialized symposia and to learn from one another, either face-to-face or from the published proceedings (*Acta Horticulturae*). Mike describes how, as a result of one of those face-to-face meetings, he was introduced to the Food and Agriculture Organization of the United Nations (FAO), paving the way for a lifetime of short-term consulting in Asia, Africa and the Middle East. His words of advice are simple: take every opportunity possible to attend as many ISHS symposia in your area of interest, and to attend every International Horticultural Congress.

› Annual report to members 2023/24

François Laurens, ISHS President

In previous *Chronica Horticulturae* editorials we have sought to keep you informed of the strategic areas on which your ISHS Board has been working since its election in August 2022. The world as we know it is experiencing unprecedented changes and challenges in many areas including climate change, a reduction in the availability of inputs, food insecurity, human health and socio-economic upheavals. To face these crucial and complex issues, science can provide solutions, but it can only do so by merging expertise, skills and experiences from various and complementary disciplines from every region of the world. Our ambition for ISHS is to consolidate and build our network to gather and valorize the collective expertise of our members and to make that knowledge available to serve horticulture worldwide.

After one and a half years, it is my great pleasure to share with you this summarized annual report which aims to share the outcomes of the tasks initiated by the ISHS Board. First of all, I would like to take this opportunity to sincerely thank the staff at our Secretariat in Leuven who, on a daily basis, perform the tasks that are necessary for ISHS to function. Of course, I also want to thank all the members of the Board who, since August 2022, have been working hard to achieve our objectives. Indeed, each of them has taken the time to write these pages for you.

In the pages that follow, our Vice-President responsible for Scientific Programs, Ted DeJong, takes this opportunity to thank all the conveners of our symposia and congresses, especially those who were affected by the COVID-19 pandemic in 2020 and 2021. Our other Vice-President responsible for Young Minds, Patricia Paiva, introduces the Young Minds Committee, a recent initiative undertaken by this Board to ensure that young and emerging researchers have a more prominent place in the Society. Our Treasurer, Lukas Bertschinger, talks about recent initiatives to both increase and diversify our membership base, while Moctar Fall, responsible for Partnerships, outlines the activities that the Board has undertaken to build enduring long-term relationships with allied organizations. Yao-Chien Alex Chang, responsible for Publications, discusses the important changes that will be put in place by the end of this year concerning the management of our publications. Heading up our Communications portfolio, Peter Batt highlights the activities that are currently underway to enhance and improve our visibility and our brand platform. As President of the Organizing Committee for IHC2026, Ryutaro Tao continues to update us on the progress he and his team are making to successfully deliver this key event. Finally, we hear from our Executive Director, Peter Vanderborght, who demonstrates not only why you should be a member of ISHS, but how your membership fees are spent to support you and your career pathway in the global horticultural industry.

› François Laurens

In the coming months, we will continue to update you as our work progresses. Your Board will continue to support the fundamental values upon which ISHS has been built and to serve the world of horticulture by taking advantage of our plurality of disciplines, geographical origins and approaches. Please do not hesitate to share your comments and suggestions with us, as they will help us continue to serve you better.

Ted DeJong, ISHS Vice-President in charge of Scientific Programs

Not surprisingly, over the past 3-4 years, the COVID-19 pandemic has significantly impacted the normal activities of ISHS. The lifeblood of our Society is the organization of international symposia to distribute information and to foster communication among horticulturists on a global scale. The global pandemic caused many scheduled symposia to be either cancelled or delayed after years of planning. Conveners who had volunteered to organize and host symposia were suddenly faced with the new challenge of hosting remotely attended symposia or "hybrid" symposia, with some participants attending in person while others participated remotely on-line. This created numerous technical issues as well as financial difficulties as registration fees often had to increase to accommodate new communication technologies.

In spite of these difficulties and disappointments involved in organizing and hosting remote or hybrid symposia, after some delay, most conveners pressed on and dealt with the issues demonstrating creativity and resilience in dealing with the situation. The ISHS Board takes this opportunity to recognize the outstanding dedication, creativity and service to ISHS and fellow scientific colleagues in organizing and hosting the symposia that occurred in 2020 and 2021 during and immediately following the pandemic (Table 1).

Not unexpectedly, the decline in the number of symposia negatively impacted the number of volumes of *Acta Horticulturae* that have been published: 37 in 2019, 35 in 2020, 30 in 2021 and 25 in 2022, with a commensurate impact on the finances of the Society.

It is good to report that activities have since recovered and are coming back strong. In 2023, 38 symposia were held and 36 are scheduled in 2024. Successful regional congresses have been held in Asia (Japan), Africa (Morocco) and Europe (Romania). In addition, the ISHS Board are actively trying to increase the number of crops and topics that the Society is involved with and the ISHS Executive Committee is evaluating the sustainability of some of the smaller or less active working groups.

› Ted DeJong

The HortForum initiative (webinars) has been quite successful in engaging members

Table 1. The ISHS Board recognizes the following conveners and editors for their outstanding dedication, creativity and service to ISHS and fellow scientific colleagues in organizing and hosting the symposia that occurred in 2020 and 2021 during and immediately following the pandemic.

Conveners/editors	Date of meeting	Title of symposium
B.R. Jeong W.S. Kim S.Y. Lee Y.H. Rhie	25/10/2020	III International Symposium on Germplasm of Ornamentals
A. Dalodom J. Siripanich I. Warrington R.J. Nissen	15/12/2020	III Asian Horticultural Congress - AHC2020
V. Scariot G.L. Beccaro	03/03/2021	IV International Symposium on Woody Ornamentals of the Temperate Zone
M.H. Hagemann B. Patil J.N. Wünsche A. Milyaev	08/03/2021	VIII International Symposium on Human Health Effects of Fruits and Vegetables - FAVHEALTH2021
J.N. Wünsche M.H. Hagemann A. Milyaev	08/03/2021	IV International Symposium on Horticulture in Europe - SHE2021
M.H. Hagemann J.N. Wünsche	08/03/2021	V International Humulus Symposium
N. Tzortzakis S. Nicola	19/03/2021	III International Symposium on Soilless Culture and Hydroponics: Innovation and Advanced Technology for Circular Horticulture
M. Fall K. Diarra K. Hannweg I.O.O. Aiyelaagbe	29/03/2021	IV All Africa Horticultural Congress - AAHC2021
B. Mezzetti M. Battino G. Baruzzi	01/05/2021	IX International Strawberry Symposium
S. Khalil M. Karlsson M.T. Naznin K.-J. Bergstrand	31/05/2021	IX International Symposium on Light in Horticulture
U. Yermiyahu A. Dag D. Atkinson	28/06/2021	IX International Symposium on Mineral Nutrition of Fruit Crops
K. Thammasiri P. Kongsawadworakul H.W. Pritchard	12/07/2021	IX International Scientific and Practical Conference on Biotechnology as an Instrument for Plant Biodiversity Conservation
S. Musacchi	26/07/2021	XII International Symposium on Integrating Canopy, Rootstock and Environmental Physiology in Orchard Systems
S.I. Aisyah D. Sukma Krisantini K. Thammasiri	27/07/2021	II International Symposium on Tropical and Subtropical Ornamentals
B.M. Nicolaï M.L.A.T.M. Hertog S. Pols	16/08/2021	XIII International Controlled and Modified Atmosphere Research Conference - CAMA2021
B. Vandecasteele J. Viaene	22/08/2021	II International Symposium on Growing Media, Soilless Cultivation, and Compost Utilization in Horticulture
D. Percival J. Polashock J. Retamales	30/08/2021	XII International Vaccinium Symposium
M.J. Liu F. Stanica Z.H. Zhao	06/09/2021	V International Jujube Symposium

D. Jevremović I. Glisić N. Milosević	14/09/2021	XII International Symposium on Plum and Prune Genetics, Breeding and Pomology
K. Yonemori S. Taira R. Tao H. Yakushiji T. Naka T. Esumi A. Sato T. Tetsumura	20/09/2021	VII International Symposium on Persimmon
G. Popsimonova S. Kaçiu N.S. Gruda S. De Pascale C. Kittas	24/09/2021	VIII South-Eastern Europe Symposium on Vegetables and Potatoes
A. Atak	27/09/2021	X International Symposium on Kiwifruit
O. Franco-Mora R. Ebel	06/10/2021	V International Conference on Postharvest and Quality Management of Horticultural Products of Interest for Tropical Regions
C. Shoemaker L. Rumpf L.A. Starling S.A. Park S.O. Kim E.H. Lee	29/10/2021	XV International People Plant Symposium and II International Symposium on Horticultural Therapies: the Role of Horticulture in Human Well-being and Social Development
M.A Vivier J.T Burger	31/10/2021	XI International Symposium on Grapevine Physiology and Biotechnology
E. Costes H. Flachowsky E. Ortega	08/11/2021	I International Symposium on Reproductive Biology of Fruit Tree Species
V. Srilaong J. Acedo	01/12/2021	V Asia Symposium on Quality Management in Postharvest Systems
S.M. Wong J. Hammond S. Adkins R. Jordan	13/12/2021	XV International Symposium on Virus Diseases of Ornamental Plants
F. Branca A. Continella A. Tribulato	14/12/2021	III International Organic Fruit Symposium and I International Organic Vegetable Symposium
D. Romano F. Bretzel S. Toscano	15/12/2021	VIII International Conference on Landscape and Urban Horticulture

in topical discussions. The first three were conducted in 2023: Are 2-D orchard canopy management systems a leap forward or a side step?; The present and future use of autonomous equipment and robotic harvesters in field-based fruit production; and Leveraging molecular markers in fruit tree breeding: from promise to reality, with a further two being held in April 2024: Dynamic controlled atmosphere storage: a paradigm shift in postharvest science; and Agroecology for sustainable horticulture: it's time to address it. Recordings of all HortForum discussions are available at **https://www.ishs.org/hortforum**

Patricia Paiva, ISHS Vice-President in charge of Young Minds

With the future of Horticulture centered around our youth, promoting actions to stimulate the involvement of young minds within ISHS is crucial to our success. For ISHS, Young Minds (YM) is a very special group including undergraduate, graduate and postgraduate students, and early career professionals who have less than 10 years of experience.

Over the past 18 months, our activities have been focused on the creation of an ISHS Young Minds Committee (YMC), composed of young representatives from the six different regions around the world. The YMC will work with the ISHS Board to deliver outcomes that meet the needs of emerging horticulturists. Proposed activities include:

- the establishment of a hub for training, mentorship, internship and exchange;
- developing year-round activities such as webinars, deep-dive meetings, networking and mentorship events to connect the industry and young professionals to discuss possible career opportunities;
- the organization of social events specifically for YM around ISHS symposia and congresses;

› Patricia Paiva

- actively promoting YM by awarding and recognizing best papers and presentations at symposia and congresses and the publication of articles within *Chronica Horticulturae*.

To communicate this initiative, we published a call on our website and social media platforms. In addition, emails were sent to all members to inform them about the initiative. After two global online meetings to explain the initiative, we received over 40 candidacies. A selection committee was established comprising members of the ISHS Board: François Laurens (President), Patricia Paiva (Vice-President), Ted DeJong and Peter Batt; ISHS Executive Committee members: Melinda Knuth, Karin Hannweg, Graeme Smith and Margherita Beruto; and ISHS members: George Manganaris and Ozaki Yukio. The Committee examined all the documentation provided including an essay and a video submitted by each of the candidates. As a result, 12 candidates were selected to serve on the YMC. Each region – Africa, Asia, Europe, North America, Oceania and South America – has two representatives: one student member and one early career professional. In the pages that follow, we profile each of the selected YMC members.

The YMC structure is composed of a president, vice-president, secretary and the members, and will be coordinated and supervised by the ISHS Board member responsible for YM. The president, vice-president and secretary were recently elected by the committee members themselves. The maximum term of a committee member will be 4 years, which will run concurrently with the terms of the ISHS Board and Division Chairs. The YMC president may, on some occasions, be invited to attend Board, Executive Committee and Council meetings.

For the young members of ISHS, including those who are not part of the YMC, it is important to feel included and welcomed by the Society. By encouraging and indeed supporting their active participation, our YM will become ambassadors for horticulture in their countries and communities, and thus contribute to making the world a better place.

Chayce Griffith, President of the ISHS Young Minds Committee

› Chayce Griffith

I'm a PhD candidate in the Department of Horticulture at Michigan State University in USA. I was born and raised in Michigan and now study one of its most important specialty crops: apples. Specifically, I study 'Honeycrisp' apples and their susceptibility to a calcium deficiency disorder called "bitter pit." Fruit affected with this disorder develops black lesions that render the fruit unpalatable for consumption. We're exploring the mitigation of the disorder through the application of plant growth regulators. I'm excited by the work that I do, and I would love to remain in academia working on similar projects. ISHS provides a powerful tool for me to connect with like-minded researchers from around the world. Due to the diversity of expertise represented by the members of ISHS, I also have a unique opportunity to learn about research activities in other crops, allowing me to broaden my understanding of global horticulture. The ISHS Young Minds Committee is well-positioned to be a point of communication between more senior ISHS members, our home universities, and the horticultural community at large. A large amount of research is being conducted by ISHS members all over the world, but it's difficult to stay informed about scientific discoveries in other countries. An organization like the Young Minds Committee could help bridge that gap and help science reach those who may not be aware of it. I think of the Young Minds Committee as an extension to my own university because research is not helpful until it gets into the right hands. The Young Minds Committee should be an example for collaboration, facilitating faster progress on global issues. I am thankful to be part of the Committee and I am eager to see what we accomplish.

Winnie Wambugu, Vice-President of the ISHS Young Minds Committee

› Winnie Wambugu

I am a passionate horticulturist with an MSc in Horticulture from Egerton University, Kenya, specializing in olericulture. My research interests lie in optimizing potato production, with a focus on seed systems, quality enhancement, crop nutrition, and postharvest handling. I'm passionate about exploring the potential of artificial intelligence (AI) tools such as crop sensors, Internet of Things, and drones for enhanced crop yield monitoring. Through these endeavours, I hope to foster sustainable practices that optimise resource utilisation and minimise the ecological footprint. My aim is to contribute meaningfully to the intersection of food systems and climate change, cognisant of the urgent need for transformative action in the face of global environmental challenges. I envision a future where agricultural practices are not only productive but also environmentally sustainable, ensuring food security for all, while mitigating the adverse impacts of climate change.

I believe that my involvement with ISHS will be instrumental in achieving this goal. ISHS provides a valuable platform for connecting with leading researchers, policymakers, and industry professionals, offering a wealth of knowledge and opportunities for sharing expertise. This network will significantly enhance my understanding of global trends and innovations in horticulture, allowing me to stay updated on the latest advancements and best practices.

Joining the ISHS Young Minds Committee is an exciting opportunity to bridge the gap between established experts and emerging talents in African horticulture. I hope to champion the needs and perspectives of young African researchers and ensure their voices are heard and actively participate in shaping the future direction of ISHS. I aspire to creating platforms for young researchers to connect, share knowledge and collaborate on innovative projects. Ultimately, my goal is to contribute to a vibrant and inclusive ISHS, ensuring a future where young African voices are at the forefront of shaping sustainable food systems.

Lijun Zhou, Secretary of the ISHS Young Minds Committee

› Lijun Zhou

I'm a PhD candidate at the School of Landscape Architecture, Beijing Forestry University, China. My research is currently focused on enhancing the smell and aroma of roses by exploring biosynthetic mechanisms through multi-omics and commercializing natural products derived from roses. To date, I have generated the first T2T genome for *Rosa gigantea* and uncovered the regulatory network of genes responsible for aroma. I have also found rose water to have high antioxidant activity.

I see the ISHS Young Minds Committee as a platform for young people to express and exchange ideas. Not only do we represent ourselves, but we serve as a link, gathering and disseminating information on the current needs of young people. With representatives from different regions, we can engage in cutting-edge horticultural technologies, learn from advanced thoughts and practices, and utilize these insights to influence more people. Furthermore, we are not just a voice, but rather the driving force for turning ideas into action. On one hand, I hope to inspire more young people to love horticulture and adopt a greener lifestyle. On the other hand, I hope to create more opportunities for young people to share the results of their activities. Through both international and regional symposia, or the ISHS website, we can organize special activities for young people where they can freely share their experiences, concerns and viewpoints on horticulture. I hope that young people will become the "accelerator" for speeding up the integration of the horticultural industry, scientific research, and a more sustainable lifestyle.

Marta Nunes da Silva

› Marta Nunes da Silva

From an early age, my driving force has been a passion to enact positive change in the world, supporting human well-being, and empowering marginalized communities while safeguarding our fragile ecosystems. Acknowledging the pivotal role of plants in sustaining life, I embarked on a journey in plant biology, specializing in agronomy and environmental restoration. I am currently a doctoral researcher and invited assistant lecturer in biology and molecular genetics at the School of Biotechnology at the Catholic University of Portugal, where I am researching advanced genotype × environment interactions towards plant protection and climate resilience.

My desire to contribute to ISHS stems from a deep-seated eagerness to collaborate with fellow colleagues in sculpting a more resilient, just, and sustainable global horticultural sphere. Firmly believing in the transformative power of horticulture, I am convinced of ISHS's ability to instigate comprehensive change, particularly in empowering producers, nurturing sustainable value chains, supporting climate resilience, and driving public education and policy reform through enhanced horticultural practices tailored to local contexts.

Through my involvement in the ISHS Young Minds Committee, my aim is to cultivate inclusive horticultural initiatives that uplift underprivileged communities through training programs, community-based endeavours, and improved resource accessibility in partnership with NGOs and governmental bodies. Furthermore, I seek to harness ISHS's expansive network to foster local farmers' markets, cooperative ventures, and consumer education initiatives, thereby optimizing supply chains, reducing waste, and fortifying local economies, all while advocating for policy frameworks that incentivize sustainable horticultural practices. Facilitating knowledge exchange within the ISHS community and fostering international collaboration is critical in achieving these goals. Last but not least, I am deeply committed to nurturing the next generation of horticulturists through mentorship programmes, academic engagement and practical courses.

Sofia Flores

› Sofia Flores

I am a young professor in the Horticulture Department at Universidad Nacional Agraria La Molina in Peru. I am also in the final year of my PhD program at the University of KU Leuven in Belgium. My research primarily focuses on studying the Lomas ecosystem and exploring the introduction of native plant species into urban green spaces in Lima. This initiative aims to provide alternative habitats for endangered species threatened by urbanization and climate change, while improving the urban greenery in Lima, which currently has one of the lowest ratios of green area per inhabitant in Latin America.

My aspirations revolve around advancing research and practices in horticulture, particularly in the context of urban environments. I aim to contribute to the conservation of biodiversity, promotion of ecosystem services, and sustainable development of urban green spaces. My involvement with ISHS offers a great opportunity to engage with leading experts, exchange knowledge, and stay updated on the latest innovations in horticulture. By participating in ISHS seminars, symposia and collaborative projects, I expect to broaden my understanding of the diverse strategies used worldwide to address similar challenges. Moreover, I want to share these insights with my community in Latin America, fostering greater collaboration and innovation in our region.

I aspire to create opportunities for professionals and young researchers to engage with the broader horticultural community, access valuable resources, and contribute meaningfully to research and innovation. Together with the other members of the ISHS Young Minds Committee, I want to organize events and mentorship programs that inspire and support the next generation of leaders, fostering a vibrant community where young minds can innovate and positively impact the future of horticulture.

Navneet Kaur

› Navneet Kaur

Living in the heart of Australia's horticulture hub Mildura and working as an agronomist, I have explored the world of plant breeding and crop nutrition. With its unique environmental challenges, Australia must focus on sustainable horticulture. My research and advocacy efforts are dedicated towards elucidating the pivotal relationship between microorganisms and agricultural resilience. Specifically, I am focusing on the critical roles of the phyllosphere, rhizosphere, and endosymbiotic microbiomes, advocating for a transition away from the reliance on synthetic fertilizers towards the cultivation of robust plant varieties and the enhancement of plant microbiomes to bolster plant health and immunity.

Having joined ISHS and more recently, upon being elected to serve on the ISHS Young Minds Committee, I see an invaluable opportunity to further these goals. I anticipate that engaging with ISHS's global network and tapping into its wealth of knowledge and resources will accelerate my efforts in sustainable agriculture. This platform will also facilitate collaborations with like-minded experts and innovators in the field.

As part of the Young Minds Committee, I aim to merge scientific innovation with practical horticulture, highlighting the role of microorganisms in sustainable agriculture. I intend to lead educational initiatives and promote sustainable practices through sharing research and success stories across media platforms. My goal is to encourage a move to eco-friendly farming, envisioning a future where horticulture excels in ecological harmony and sustainability leadership.

Keanu Martin

› Keanu Martin

I'm a lecturer and researcher at Stellenbosch University in South Africa. My primary aim is to become a distinguished horticulturist whose work significantly benefits the industry. I am deeply committed to enhancing sustainability through innovation and improving the efficiency of horticultural practices and systems. My involvement with ISHS positions me at the forefront of groundbreaking research and development. Engaging with top-tier horticulturists and accessing the vast reservoir of knowledge, expertise and networks will facilitate my growth as a researcher. This unique platform not only facilitates my professional development, but also empowers me to disseminate cutting-edge knowledge throughout the horticultural community.

As a member of the ISHS Young Minds Committee, my goal is to foster an environment that promotes robust knowledge exchange among horticulturists, bridging the gap between emerging researchers and established experts. I am particularly focused on enhancing the visibility and accessibility of collaborative opportunities and resources for early career researchers. By facilitating these connections, I aim to create a dynamic ecosystem where innovative ideas and practices can be shared freely, leading to groundbreaking advancements in horticulture. My vision is to contribute to a vibrant community where the exchange of knowledge not only accelerates individual careers but also propels the entire field towards greater sustainability and efficiency.

Scott Orr

› Scott Orr

I'm excited to have been selected as an early career professional to serve on the newly created ISHS Young Minds Committee. For the past nine years, I have been employed by the USDA Agricultural Research Service, Horticultural Crops Research Unit, located in Corvallis, Oregon, USA. I'm a Biological Science Technician in the production physiology lab, where I'm working on a wide variety of research projects that focus on irrigation and fertility management of berry crops. In addition, I'm currently enrolled in a PhD program at Oregon State University, where I'm developing crop coefficients for blueberry and using artificial intelligence to analyze remotely sensed imagery.

Being involved with ISHS has been very helpful in my professional development. I have particularly enjoyed the symposia, networking and resources available. The excellent reputation of ISHS and its ability to support emerging young scientists led to my interest in the Young Minds Committee. I see the Young Minds Committee as providing a great opportunity to help engage, connect and mentor the next generation of scientists. I am particularly interested in the mentoring initiative of the Committee, and I look forward to leveraging my experience and insights into building a platform for mentorship. Furthermore, I foresee the development of an

online program specifically geared towards students and younger professionals as a way of increasing participation and skills by offering educational and networking resources. I greatly appreciate the opportunity to serve on the Young Minds Committee and look forward to meeting and collaborating with others on these important initiatives.

Hyungmin "Tony" Rho

› Hyungmin "Tony" Rho

I'm a horticultural crop physiologist who studies interactions between crops and the environment. Originally from South Korea, I am an assistant professor at the Department of Horticulture and Landscape Architecture, National Taiwan University, Taiwan. My expertise lies in environmental stress physiology, where I'm exploring the role of plant growth-promoting microorganisms and employing process-based crop modelling to enhance resource use efficiency in horticultural crops. In my current role, I lead research programs to elucidate how symbiotic microorganisms can improve the heat stress tolerance of various horticultural crops. Additionally, I am actively involved in developing crop-specific process-based models that can be seamlessly integrated into smart-farming crop production systems. Today, we live in a digital world where cutting-edge research results are delivered onto a conventional platform that cannot keep pace with the world of science. I want to explore how scientists, horticulturists, and the public communicate to broaden horticulture's user base and impact. I envision establishing a robust research network on a modern platform capable of undertaking global-scale projects and serving as a foundation for collaboration among horticultural scientists, educators, and practitioners. An integral part of this initiative is an online forum where young scientists can share their experiences and challenges in navigating their careers. My primary focus as a member of the ISHS Young Minds Committee will be to foster international collaboration and communication. I aim to establish networks and communities that showcase the strength and advancement of horticultural science worldwide to facilitate the growth of my own career and that of many young fellows. Recognizing that horticulture thrives on diversity, sharing data and ideas on a modern platform is essential to address climate change effectively.

Isabella Righini

› Isabella Righini

Originally from Italy, I have been living and working in the Netherlands since 2018. I have a background in horticultural science, and I am currently working as a researcher at Wageningen University Research in the Greenhouse Horticulture unit. At the same time, I am enrolled in a part-time PhD program, focusing on production efficiency and resource use in controlled-environment agriculture for urban and peri-urban areas. My research over the years has included: projects on high-tech greenhouse systems and vertical farming to investigate resource use efficiency and the production of different crops under different climate conditions; validation of greenhouse-climate models; and economic modelling to assess the effect of greenhouse investments and management on crop yield, resource, and energy use.

I am thrilled to be part of the ISHS Young Minds Committee and to collaborate with fellow members in developing initiatives that will actively involve young individuals in horticulture, fostering knowledge exchange and innovation throughout the whole community. The horticultural sector is facing a significant generation gap as both farmers and researchers age. Bridging this gap is paramount. In establishing a Young Minds Committee, ISHS has taken a pioneering step towards empowering youth within the sector. Events and digital platforms can serve as conduits, facilitating greater participation and connection across the global community. Enhancing and diversifying communication methods is pivotal. A broader audience can be engaged through upgraded communication strategies. Additionally, the creation of tailored dissemination materials, targeting diverse audiences, can broaden outreach and understanding. Together with the other members, I hope we can serve as a channel for sharing the needs and aspirations of younger generations. We can co-create solutions and advocate for their integration within ISHS's decision-making processes. Moreover, I envision the Young Minds Committee as a catalyst for professional development and networking opportunities. By organizing workshops, mentorship programs and networking events, we can facilitate the growth and success of emerging talent in the field.

Claire Scofield

› Claire Scofield

I'm currently a PhD student at the University of Tasmania, Australia, but I'm also engaged part-time as a scientist specialising in fruit physiology at Plant & Food Research in Central Otago, New Zealand. My research is centred around exploring calcium uptake in sweet cherries within protected cropping systems. I've been immersed in this project for about nine months and find it immensely fulfilling. The opportunity to tackle scientific challenges and work directly with growers, alongside practical field and laboratory work, is what I most value in my career.

My immediate goal is to complete my PhD and then let my curiosity and passion for horticultural science guide my path forward. The field is incredibly broad and constantly evolving, with rapid advancements in technology offering new avenues to make fruit cultivation more sustainable from an economic, environmental and social perspective. I look forward to the opportunity to lead initiatives within scientific teams, guiding efforts that bring about positive change with tangible impacts on industry.

As a member of the ISHS Young Minds Committee, I look forward to connecting with fellow emerging researchers passionate about advancing horticultural science. I am keen to discuss strategies for supporting our next generation of scientists, particularly in making science careers more viable and impactful. Another important aim is to master the art of communicating scientific findings effectively to both industry professionals and the broader public. Ultimately, I seek to contribute towards the Society's objectives of broadening its influence and appeal, ensuring horticultural science remains a vibrant and enticing field for future generations.

Rayan Scariot Vargas

› Rayan Scariot Vargas

I'm currently pursuing a PhD in Rural Extension at the Federal University of Santa Maria, Brazil. In addition, I'm conducting a doctoral internship at the Faculty of Agricultural Sciences of the National University of Comahue, in the Patagonia region of Argentina. During my internship, I'm working on a portion of my doctoral research, where I'm investigating Community Supported Agriculture, highlighting its relationship with biodynamic agriculture. My aim is to develop strategies for the valorization and commercialization of agroecological products in the development of rural communities in the Alto Valle region of Patagonia. I see my participation in ISHS as an opportunity to learn from renowned researchers in horticultural development at an international level. I hope to develop both methodological skills and establish valuable collaborations.

As a member of the ISHS Young Minds Committee, I hope to first and foremost reciprocate all the trust placed in me by actively contributing to the scientific community, sharing my experiences and learnings, and establishing meaningful connections with other young researchers. Together, we can reflect and develop collaborative and innovative solutions to address the current and future challenges in horticulture, thereby promoting the sustainable development of this industry. I also recognize the urgency of addressing climate change, which represents a significant threat to food security and the stability of agricultural systems.

Lukas Bertschinger, Treasurer, in charge of strategy to strengthen membership and outreach

› Lukas Bertschinger

ISHS is operating within a dynamic environment that is constantly changing. Like many similar organizations, we are currently experiencing a decline in revenue, while the costs of operating the Society continue to increase. The Board's strategy 2022-26 seeks to provide ISHS with a more sustainable financial base by consolidating income from membership and revenue from the sale of *Acta Horticulturae*, while in parallel, reducing our operating costs wherever we can.

Expanding our membership is the main priority for the Board. As the last membership survey was conducted in 2017, we undertook a survey of both our members and non-members. The survey results indicated that the main reasons why people join ISHS is to participate in our various symposia, the IHC, and to collaborate and network with other horticultural scientists working on similar problems and issues. The three things that were most important to members were the opportunity to develop international research contacts, the ability to download papers from *Acta Horticulturae* and the opportunity to participate and present, at a discounted registration rate, at one or more of the 30+ specialized symposia that are convened every year under the auspices of ISHS. From the survey results, we identified the need to develop a more comprehensive range of benefits for our members, to recognize and reward our most loyal members, to attract and retain young people, and to improve our contacts with industry and allied organizations. Through the efforts of a membership sub-committee, we have reviewed and redesigned the membership categories and benefits, including the possibility of a lifelong membership and/or a retired member category. Several of these new initiatives will be rolled out in 2024.

With the intent of attracting new corporate members, a Corporate Membership Expert Committee was established. To facilitate the process of attracting new corporate members, ISHS will participate in several major industry events in 2024, including, through a partnership with the Australian Society of Horticultural Science, a booth at Horticulture Connections in Melbourne, the biggest horticultural trade fair in Oceania, and we will participate in Macfrut, the largest fresh fruit and vegetable exhibition in Europe in Rimini, Italy. In February 2024, we welcomed our first new corporate member, CH Biotech. CH Biotech is a world-class R&D company that is involved in the development, promotion and sales of agricultural biotechnological products. To further support our efforts to improve our membership base, we plan to establish an Ambassador Club whereby we will encourage individuals, corporates, institutions and partners to advocate for ISHS and to promote the services and benefits that the Society offers.

In parallel, we are also seeking to improve country and region membership. To the maximum extent possible, country membership should be reflected in our individual membership base but, for a number of reasons, this is not yet the case. Several countries have been identified as potential new members and efforts are currently underway to encourage their participation.

The business model under which ISHS operates has not been reviewed since the Society was first incorporated in 1959. To assist the Board in better understanding the challenges that lie ahead of us, we have identified and recruited a competent and capable management consultant to guide us. We received their draft report in May 2024 and will begin in the following months to progressively implement their recommendations.

Moctar Fall, Partnerships

In positioning ISHS as the world's leading independent organization of horticultural scientists acting as a globally recognized and sought-after platform of exchange and partnership for science-based sustainable innovation in horticulture, the Board is actively seeking to bolster partnerships with key institutions, industry and NGOs.

The previous Board initiated and signed a Memorandum of Understanding (MoU) with the Food and Agriculture Organization of the United Nations (FAO), which the new Board has re-activated. Both parties have expressed a strong commitment to work together on different and various domains. While both parties are still working to establish an action plan for the coming years, FAO has restated its desire to support major ISHS regional congresses and the Young Minds program.

One of the major initiatives this year was the joint effort between ISHS and FAO in the organization of the V All Africa Horticultural Congress, which was held from February 26 to March 1, 2024, in Marrakesh, Morocco. This event under-scored our commitment to enhancing horticultural science, technology transfer and education across the African continent, and fostering dialogue among key stakeholders.

In February 2024, ISHS signed an MoU with the Taiwanese Society for Horticultural Science (TSHS), the Taiwan Orchid Growers Association (TOGA), and the Taiwan Seed Society (TSS). We are confident that these model MoUs will pave the way for similar associations and professional organizations from all around the world to derive some value from entering into a collaborative relationship with ISHS. In parallel, the Board has met with the World Vegetable Center and conducted discussions with the Sustainable Agriculture Initiative (SAI) Platform and the Sociedad Científica Latinoamericana de Agroecología (SOCLA).

ISHS is not only expanding its reach but also enhancing its capacity to influence and lead horticultural research at a global level. We remain committed to nurturing these relationships and to exploring new avenues to ensure that our influence continues to thrive and contributes effectively to addressing the challenges that face our sector.

› Moctar Fall

Yao-Chien Alex Chang, Publications

Over the past year, the Board has been seeking to improve the efficiency of publication and to increase our visibility through our publications. In addition to *Chronica Horticulturae*, which is our primary means of communicating with our members, and *Acta Horticulturae*, which reports on the many congresses and symposia we have conducted around the world, we have our two journals: eJHS (*European Journal of Horticultural Science*) and *Fruits - The International Journal of Tropical & Subtropical Horticulture*.

To better serve our members, we need to have a prestigious scientific journal that both provides an opportunity for our members and non members to publish the results of their research activities while increasing and improving the global impact of the Society. With the aim of increasing the visibility and publishing efficiency of our journals, an ISHS Publication Expert Committee has been formed. Many technical aspects for improvement have been discussed. We wish to thank Henryk Flachowsky, Rémi Kahane, Leo Marcelis, Sisir Mitra, Silvana Nicola, and Bart Nicolaï for their valuable experience and suggestions.

ISHS is negotiating an exclusive agreement with CABI, a not-for-profit publishing house, to manage the publication of our journals. Under this agreement, ISHS members will continue to benefit from a reduced article publishing charge (APC) and, at the discretion of the Editor-in-Chief, a number of discounted APCs for articles submitted by researchers from developing countries. Under CABI's umbrella, not only will the journals receive greater recognition, but ISHS will also receive an income commensurate with the number of papers published.

› Yao-Chien Alex Chang

To facilitate the process, we have appointed a new Editor-in-Chief to oversee the publication of both *Acta Horticulturae* and to manage our relationship with CABI. A call for applications for the ISHS Editor-in-Chief was announced in November 2023 to all ISHS members. We gratefully received numerous applications from our outstanding and enthusiastic members who were willing to contribute their expertise. However, after a careful evaluation and interviews with other potential candidates, we appointed Dr. Renato Paiva as our new Editor-in-Chief. Renato has considerable experience as editor-in-chief of several international journals and thus he is very capable of restructuring and repositioning our journals in what is a very competitive landscape.

Renato Paiva, Editor-in-Chief, ISHS Scientific Publications

› Renato Paiva

Dr. Renato Paiva is Professor of Plant Physiology at the Federal University of Lavras (UFLA), Brazil. Besides teaching courses on plant growth and development, Prof. Paiva has devoted his career to research on micropropagation and the in vitro conservation of native fruit species. The results of these studies have resulted in the publication of more than 200 research papers in peer refereed scientific journals worldwide. Prof. Paiva has been a member of ISHS since 2012. In 2017, he was convener of the VII International Symposium on Production and Establishment of Micropropagated Plants. For the past 18 years, Prof. Paiva has been Editor-in-Chief of the Brazilian scientific journal, *Ciência e Agrotecnologia* (*Science and Agrotecnology*). He is also a guest Associate Editor in Crop and Product Physiology at Frontiers. Currently, he is a member of the SciELO Brazil Consultative Committee representing all editors of agricultural journals. The SciELO (Scientific Electronic Library Online) is a publicly funded web-based network that provides free access to journals. He is also a member of the Brazilian Association of Scientific Editors (ABEC). Due to his extensive involvement and experience with scientific publications over many years, after interviewing several other candidates, he was appointed Editor-in-Chief for the ISHS journals (eJHS and Fruits) and *Acta Horticulturae* in February 2024.

Peter J. Batt, Communications and ESG

Within the Communications portfolio, the last 18 months have seen multiple projects conclude while other initiatives are just getting underway. We undertook in early 2023 a survey of both our members (448 responses) and non-members (268 responses). The results of these surveys, which were reported in *Chronica Horticulturae* in September 2023, were instrumental in shaping our drive to not only increase our membership base, but also to retain our existing members. Furthermore, as you – our members – called for greater transparency, the publication of this annual report is a direct outcome of that survey and our desire to accommodate your wishes.

Working in conjunction with Media Pilote, a French communication company, we are currently reviewing and revising our communication strategy. This has resulted in the development of a new, more modern logo that still retains elements of our existing logo. We have also established a new baseline statement that we will utilise in all our promotional and marketing activities: Advancing horticulture for a better tomorrow together.

However, it will be some time before you see the new logo in use, for we must also redevelop and revise our website and all our promotional material. While initially we thought that the redesign of our website would be a relatively simple task, it soon became apparent that the platform upon which our website is built (Drupal7) will soon become redundant, hence we must migrate to a new platform WordPress. To facilitate the process, we have engaged a website designer to work with us, with an anticipated completion date in October/November.

In both pursuing more corporate members and in positioning ourselves as the world's leading independent organization of horticulturists acting as a globally recognized and sought-after platform for research, science-based information exchange and collaboration in support of sustainable innovation in horticulture, the Communications portfolio has been extended with the addition of ESG. ESG is an acronym for Environmental, Social and Governance. ESG is a holistic concept that describes an organization's capacity to create and sustain long-term value in a rapidly changing world, and to manage the risks and opportunities associated with these changes. In commencing our ESG journey, the Board is currently exploring a number of strategies that are relatively easy to accomplish and which will incur minimal costs. Given that most of the corporate world are aligning themselves with the Sustainable Development Goals (SDGs) and developing sustainability strategies, it is appropriate that we also adopt, implement and report on our activities to reduce our environmental footprint, enhance our employees' wellbeing, and the Society's leadership and management philosophy.

› Peter J. Batt

Chronica Horticulturae continues to be our primary vehicle for communication, but we are also embarking on a strategy to raise awareness through our participation in several international trade fairs and through our partnerships with allied organisations such as the FAO.

Ryutaro Tao, President of the ISHS XXXII IHC (Kyoto, Japan, 2026)

› Ryutaro Tao

The organizing committee for IHC2026 has been diligently preparing for the event, with the schedule almost finalized. The opening ceremony will take place on the afternoon of August 23, 2026 (Sunday), followed by a welcome reception. During the opening ceremony, the My 3-Minute Horticultural Thesis (3MHT) competition will take place. It aims to acknowledge the endeavors of emerging scholars who excel in succinctly summarizing their research findings within a three-minute time frame. The presentation must demonstrate how their research contributes to the overarching theme of IHC2026, "Exploring the Diversity of Horticulture," and should align with the secondary thematic areas of the congress. Plenary lectures are planned for each morning from August 24 (Monday) to August 27 (Thursday), 2026. Two plenary talks will be scheduled for each day, covering diverse fields related to horticultural science.

A total of 25 symposia, based on techniques and crops, are planned, each ranging from one to three days in duration. In addition, we have scheduled a special symposium for those who choose not to participate in the technical tour: one for Asia and Pacific horticulture and another for plant reproduction. Several one-day technical tours are planned for August 28, 2026 (Friday).

We are currently seeking sponsors to lower the registration fees as much as possible. Details can be found on the IHC2026 website (**www.ihc2026.org**), so those interested are encouraged to refer to it. Registration will commence in the summer of 2025. We anticipate a high number of registrations and look forward to welcoming you to Kyoto in 2026.

Peter Vanderborght, Executive Director

In the wake of the COVID-19 pandemic, ISHS faced unprecedented challenges in organizing its events and maintaining its momentum in advancing horticultural science. However, through resilience, adaptability and innovative strategies, the ISHS Secretariat, supported by the ISHS Board, has successfully navigated its way through the obstacles.

From the time they were appointed, the current ISHS Board has seized the moment, leaving the past behind and looking for a new way forward. The result is a whole range of new ideas that are currently being developed, all of which are aimed at future-proofing the Society. A management consultant has been hired to help the Society deal with the complex and difficult environment, to provide guidance in implementing effective new strategies, and to test the viability of some of the ideas that have emerged from within the Board.

Individual membership has been and will always be the life-line of ISHS, playing a vital role in sustaining the Society's mission, activities, and impact. I wish to take this opportunity to thank all those loyal members for renewing their membership in a timely manner, but just as importantly, to invite those who have yet to renew their membership, to think again and to do so today. Being a member of ISHS enables you to be part of a global community dedicated to advancing horticultural research, innovation and education, while in parallel, greatly benefiting your career. Your membership provides you with access to resources and networking opportunities, enabling you to access the wealth of resources offered by ISHS, including scientific publications, symposia, conferences, workshops, and online forums. These resources provide valuable opportunities for learning, collaboration and networking with fellow researchers, experts and professionals in the field of horticultural science. Through these interactions, you can stay updated on the latest advancements, exchange ideas and establish connections that will enhance your career prospects.

Membership renewal enables you to engage in various professional development activities facilitated by ISHS. From attending symposia, congresses or workshops, or participating in other programs or forums, these opportunities help you broaden your knowledge, acquire new skills, and stay abreast of emerging trends and technologies in horticultural science. Continuous learning and skills enhancement are integral to career growth and competitiveness in today's dynamic scientific landscape.

By renewing your membership, you contribute to the sustainability and effectiveness of ISHS as a true non-profit organization, dedicated to serving the scientific community. Membership fees support essential activities such as the publication of scientific papers in the symposium proceedings series *Acta Horticulturae* or the ISHS peer-reviewed journals, the organization of symposia, international and regional congresses and other events, the maintenance of online platforms, etc. Your financial support enables ISHS to fulfill its mission of promoting and disseminating horticultural knowledge worldwide, benefiting researchers, students, educators, and practitioners alike in a non-commercial and affordable way.

As a member of ISHS, you become part of a collective voice advocating for the advancement of horticultural science on a global scale. Through membership renewal, you affirm your commitment to supporting initiatives aimed at promoting sustainable practices, addressing challenges facing the horticultural industry, and advocating for policies that prioritize scientific research and innovation. Your participation strengthens ISHS's influence and credibility in this respect and supports partnerships with like-minded agencies.

› Peter Vanderborght

Membership renewal is vital for ensuring the continuity and growth of ISHS as a leading organization in the field of horticultural science. A robust and active membership base is essential for sustaining ISHS's operations, fostering collaboration, and thus driving innovation in horticultural research and practice. By renewing your membership, you contribute to the long-term viability and impact of ISHS, enabling it to evolve and adapt to the global challenges.

Your commitment to membership renewal ensures the continuity, growth and impact of ISHS, reaffirming our position as the premier global platform for horticultural research, education and collaboration.

You can renew your membership at **www.ishs.org** or **www.actahort.org**

Spotlight on Honoured ISHS Members

› Christian Patermann

Previous position

Director, European Commission, Brussels (retired)

ISHS honour

ISHS Fellow

› Christian Patermann attending the Advisory Board meeting of KoGa in 2013.

My first contacts with ISHS go back to Spring 2004 in Brussels, Belgium, where I was working as a Director in the European Commission. After 7 years leading the Environment, Marine, Climate Directorate and for some years the Sustainibility Directorate within the famous DG 12, I had just moved over to head the Directorate on Agriculture, Food, Forestry, Fisheries and Biotechnology. Jozef Van Assche, then Executive Director of ISHS, was one of the many representatives from professional associations who came to see me and to get acquainted with my new professional functions. I remember from that meeting that global horticultural activities were not only impressive, but also played a critically important economic role within the agrifood landscape, which is still dominant to this very day within the European Commission. Not only did Europe have an interesting role to play here, but I also learnt about the concept of value added chains, which at that time were becoming highly topical in the political debate, and which today are just as relevant as everyone focuses on resilience.

Jozef and I continued to have occasional contacts, which became much closer during the preparation of the 7th Framework Programme in 2006, where I introduced the concept of the Knowledge Based Bioeconomy (KBBE), which utilised biological resources as the resource base, biotechnology as the primary but not exclusive technology, and included the concept of the value added chain as the means by which production was carried out. We had almost forgotten to mention horticulture in the scope of application fields, until Jozef and Marion Goulliou, the President of INRA, reviewed the final draft of the Programme text and the working programme, and reminded us of the need to include horticulture as an extremely valuable resource for food, feed, biomass and the bioeconomy. This over-sight was important to me, for it was indicative of the failure of agribusinesses worldwide to appropriately value the role of horticulture in strategic discussions on food, feed, fibre and fuel and indeed, the very future of our planet.

After my retirement, I have been privileged to follow intensively the further development of agrifood and their links with the biobased economies worldwide. The University of Bonn, in the city to which I returned during my retirement, asked me to join the Board of the newly created Center of Competence of Horticulture, led by Professor Georg Noga, a very well known scientist. The Center was named KoGa (Kompetenzzentrum Gartenbau) and to my surprise, I met Jozef again and through him, became even more aware of the important role ISHS plays on the global stage. As our friendship and intensive professional links further developed, it was my great honour to be appointed a Fellow of ISHS at a very dignified ceremony in Berlin a few years ago.

My narrative with ISHS demonstrates in an impressive and sympathetic way, the special feature of ISHS that I have always admired: ISHS is truly a global endeavour, and yet it acts at the same time on a local level, within, for example, the Competence Center of Horticulure KoGa at the University of Bonn, combining the activities in two German Länder: Rheno Palatia and NorthRhine Westphalia, which combined accommodate more than 20 million people.

Against this background I call upon all stakeholders involved in ISHS to be proactive, be proud, think global, but act local.

› Uwe Schmidt, former president of the Deutsche Gesellschaft für Gartenbau (DGG), and Jozef Van Assche, former ISHS Executive Director, presenting the ISHS Fellow Award to Christian Patermann and his wife Birgit at the Annual Meeting of DGG in Berlin in 2019.

› Mike Nichols

Previous position

Senior Lecturer in Horticulture, Massey University (retired)

ISHS honour

ISHS Honorary Member

› Consulting in Iran as guest of the University of Tehran.

Background

I was born in May 1934 in Hendon, a suburb of NW London, England. In September 1939, the family (except my father who became a fireman during the war) were evacuated to Oxford to live with grandparents. This was fortunate as Oxford never received any bombing during the war. I attended the local primary school and gained a scholarship through the notorious 11+ examination to attend the City of Oxford High School.

After obtaining School Certificate at 15 years old, I had to decide whether to leave school and study for a Diploma in Horticulture, or stay at school for 2 more years and go to University. Because I enjoyed playing cricket and rugby for the school, I stayed at school: an important decision, made for all the wrong reasons.

In 1952, I obtained entrance to Nottingham University. As a condition of entry students had to have 12 months of practical horticultural experience. I obtained this from a horticultural property near Oxford which grew a large range of fruit and vegetables for the local shops.

Upon completing my BSc(Hort) degree, I went to work for a large market gardener (F A Secrett Ltd) just south of London. While at Nottingham, I was taught by Professor J.P. Hudson who had spent 3 years in New Zealand following the 2nd World War, and was a strong advocate of the country. Needless to say, when a horticultural position was advertised, I applied and was appointed to an Extension position with the Department of Agriculture in 1958.

New Zealand suited me very well. I was a Horticultural Advisory Officer at Oamaru. The district grew greenhouse crops, field vegetables, and a range of fruit crops from apricots to greenhouse grapes. After 2 years I was transferred to Nelson, where I met and married my wife (Lindsay).

The advisory job had a small research component, which I enjoyed, so a higher degree became my next objective. In 1962, the Department of Agriculture granted me leave without pay, and I was fortunate enough to be appointed Demonstrator in Horticulture at Nottingham University, which enabled me to undertake a Masters degree. This was followed by enrolment in a PhD, but then the opportunity arose, in 1965, to return to New Zealand to a lecturing position at Massey University, and so my PhD (the first one awarded in Horticulture at Massey) was completed in 1970. A sabbatical year in Canada in 1971 as a Post-Doctoral Fellow at the University of Guelph was followed by 30 years of teaching and research at Massey until my retirement in 2001.

My introduction to horticulture

During the war, the father of one of my closest primary school friends had an allotment, which I used to visit regularly. This is where I suspect my interest in horticulture first developed. I can recall later, as a teenager, getting books from the local library about commercial fruit and vegetable production, and working in the school holidays for a local nurseryman pricking out seedlings. At home I built a cold frame and heated the soil with low voltage electric cables to grow out-of-season lettuce and bedding plants, which I exhibited at the local flower show. Two of my great aunts were members of the RHS and on occasions provided me with a pass to go to the Chelsea Flower Show.

My introduction to ISHS

In 1962, while at Nottingham University, Dr. Margaret Marston, a Senior Lecturer in the Department, suggested that I should join ISHS. However, my involvement with ISHS did not really begin until 1977 when I attended an ISHS symposium at Wellesbourne, England, and realized what I had been missing. Of course, New Zealand is a long (and very expensive) way from Europe, where most of the symposia were held at that time. The following year I attended my first International Horticultural Congress at Sydney and in 1979 a Eucarpia asparagus symposium at Geisenheim (Germany), followed by an ISHS Symposium on Production of Tomatoes for Processing in Evora (Portugal). This was really the beginning of my active involvement with ISHS.

In 1982, I attended the XXI International Horticultural Congress in Hamburg, Germany, as the ISHS Council Member for New Zealand and raised the question as to why horticultural education was not one of the topics on the Society's agenda. As a result, I was elected Chair of a new Commission for Education and Training, and as a consequence of that, my first meeting as an ISHS Executive Committee member was in Budapest, Hungary, in 1984.

The new Commission Education and Training held its first symposium on Postgraduate Training for Development in conjunction with the XXII International Horticultural Congress at Davis, USA, in 1986.

In 1998, Professor Dixon took over as Chair of the Commission, and I became, for one term, Chair of ISHS Section Root and Tuber Crops, during which two symposia, one in New Zealand and one in Peru, were organized.

› Coir production involves coconut milk (with Zak Iqbal, Browngrow, Sri Lanka).

Among the delegates at ISHS Council meetings was Dr. U. Menini (representing FAO), with whom I raised the possibility of my involvement as a short term consultant for FAO. As a result, I undertook many consultancies for FAO in Pakistan, Thailand, Indonesia, Egypt and Lesotho over some 20 years. This also opened the door for consultancies for other organizations including the EU, USAID, Dole Foods, etc.

Massey University was very supportive of this initiative, as they welcomed the international exposure, as like most universities, overseas students are an important asset. Probably the most important contribution that ISHS makes, apart from the scientific contribution via publications, is the opportunity it provides for meeting other horticulturists with similar interests. In my experience, horticulturists are friendly, cooperative, sociable and willing to share their knowledge and experience.

My achievements

Undoubtedly, my most valuable achievement was to be involved with my colleagues at Massey University in introducing some 2,000-3,000 diploma, undergraduate and post graduate students to the science and practice of horticulture. Many of these students have gone on to become leaders in the industry both nationally and internationally.

On the technical side, I developed a strong interest in asparagus. In 1984, at the ISHS Executive Committee meeting, I proposed that a Working Group on Asparagus (within ISHS Section Vegetables) would be a useful development. This was approved, and since then, ISHS has held a 4-yearly symposium for the past 40 years. To me the key was to provide a mechanism for regular symposia, with the proceedings available via *Acta Horticulturae*.

I also proposed to the asparagus industry the world-wide testing of new varieties of asparagus. This programme is currently in its fifth iteration. A printed "asparagus research newsletter" was also circulated by me every 6 months for some 10 years, but clearly, with internet communications is no longer needed. Soon after my retirement, a former student who worked for a coir company visited me at the university, and as a result I grew some asparagus in coir using hydroponics in a high unheated tunnel house. The productivity was astounding: 1 kg plant^{-1} of spears annually (equivalent to over 20 t ha^{-1}).

In the mid 1990s I was invited to give a seminar at NASA's Kennedy Space Centre in Florida, on aeroponics. Following my presentation, I was shown over the Centre and viewed some of the plant research currently underway. This included some very early work with LEDs on lettuce growth. I quickly realized that this was the future for protected cropping and on my return to New Zealand, raised this with the University Research Committee, who brought in some patent experts, who explained that the concept was not patentable. As a result, I presented papers on the Greenhouse of the Future at ISHS symposia in Taiwan and Italy. The absence of LEDs in New Zealand prevented any work on the topic until 10 years later, when a colleague (Damian Duggan Jones) and I looked at the effect of temperature, CO_2 level and radiation intensity on lettuce and cabbage seedlings in a fully factorial growth analysis study.

› Receiving Convener award at the ISHS symposium ICESC2015: Hydroponics and Aquaponics at the Gold Coast in Australia.

What have I gained from my membership of ISHS

I believe that the main reason for the existence of ISHS is that horticulture is international and that we can all learn from others, either face-to-face (at symposia, etc.) or from publications (*Acta Horticulturae*). ISHS provides the opportunity for like-minded people to meet at specialized symposia, and even more importantly for the proceedings to be available electronically.

It was by chance I became the first New Zealander to be elected onto the ISHS Executive Committee, and to be elected an ISHS Honorary Member. This was followed later by three New Zealanders being elected onto the ISHS Board (Ian Warrington, Errol Hewett and Jill Stanley): not a bad effort for a small country of only 5 million people! I can recall Emeritus Professor Warrington criticizing the composition of the Board at one meeting (in New Zealand), that it was comprised of only "grey haired old men". It has certainly changed for the better since then, with more women being elected and one (Prof. Dr. Yüksel Tüzel) becoming President.

Advice to students and early career researchers

Fools rush in where angels fear to tread, so any advice that I give here must be very much tongue in cheek. If I was to have my life over again I would take every opportunity possible to attend as many ISHS symposia in my area of interest, and to attend every International Horticultural Congress. Attendance at the specialized symposia gives you face-to-face contact with the movers and shakers of your specialized area of interest, while the International Horticultural Congresses expand your horizons beyond your specialty. Life is not what you know but who you know.

› ISHS Young Minds Award winner summaries

Below is a selection of research summaries from winners of ISHS Young Minds Awards for best oral and poster presentations at ISHS symposia. To view other exciting research summaries by other winners, please visit www.ishs.org/young-minds-award.

Multi-omics reveals release rhythm, biosynthetic mechanism and commercial uses of tea scent in *R. gigantea*

› Lijun Zhou

Lijun Zhou, a PhD candidate at the School of Landscape Architecture, Beijing Forestry University, China, under the supervision of Prof. Chao Yu, is exploring the mechanisms responsible for the fragrance of roses. Rose is one of the most important ornamental plants with high edible and medicinal values, and is widely cultivated worldwide for perfume production. *Rosa gigantea*, with its strong sweet fragrance, has played a prominent role in the breeding of the hybrid tea roses. Using genomic, transcriptomic and metabolomic analysis, Lijun explored the mechanisms for the synthesis of the major components extracted from *R. gigantea*. She extracted the rose fragrance hydrosol and explored its antioxidant activity for commercial development. A gap-free genome assembly was generated for the tea-scent of *R. gigantea* to provide a detailed scientific basis for a comprehensive understanding of the fragrance bio-pathways. Metabolomic assessment by SPME (solid phase micro extraction)-GC (gas chromatography)-MS (mass spectrometry), combined with sensory analysis, revealed that *R. gigantea* contains diverse floral aroma compounds with many commercial applications, including eugenol, 3,5-dimethoxytoluene, 2-phenylethanol, and linalool. Time-ordered gene co-expression networks (TO-GCNs) revealed volatile organic compounds (VOCs) and genes from benzenoids/phenylpropanoids that have a major influence on the fragrance. She also uncovered the specific gene regulators underpinning the distinct scent, such as MYB and bHLH, which dominated the gene regulation of eugenol in roses. The metabolome analysis of hydrosol extracted from rose flowers showed that the main components of hydrosol and flowers both contained eugenol and 3,5-dimethoxybenzene. The antioxidant activity of hydrosols extracted from *R. gigantea* was higher than that of the Damascus rose. An examination of different floral components showed that the antioxidant activity of eugenol was much higher than that of other components, such as linalool and ß-ionone. In summary, her findings could provide a scientific basis for improving the fragrance of hybrid tea roses and promoting new plant essential oils for development and utilization in food storage, aromatherapy, cosmetics, and the perfume industry.

Lijun Zhou won the ISHS Young Minds Award for the best oral presentation at the IV Asian Horticultural Congress in Japan in August 2023.

› Contact

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Some new jujube processed products for the European market

› Elena Gabriela Stan

Jujube is the most important species in the *Rhamnaceae* family in terms of its economic, ecological, and social importance. It is also one of the oldest cultivated fruit trees in the world. More recently, jujube is attracting greater interest among researchers, farmers and consumers worldwide. While food products derived from jujube are seldom seen on the European market, we believe that this fruit is extremely important for a healthy diet, in both a fresh and processed form. The nutritional properties of jujube – high vitamin C content, antioxidant capacity, high fibre content, sugar content and coloring capacity – can be combined in many innovative food products. Here we present some new jujube products such as ice cream, cookies, candies, tea, protein bars and compotes which have been developed for "European" tastes. Dehydrated fruits and freeze-dried jujube powder have excellent sweetening properties and are a healthy substitute for sugar. Having tested these products, the next step will be industrial production, attracting the interest of farmers and consumers to integrate this fruit into a diverse range of food products for the European market.

Elena Gabriela Stan won the ISHS Young Minds Award for the best oral presentation at the VI International Jujube Symposium in Romania in September 2023.

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Profiling of individual desulfo-glucosinolates and sugar content among cabbage germplasm and selection of multi-functional genotypes for commercial breeding

› Yu Kyeong Shin

Yu Kyeong Shin is a research associate professor at the Department of Horticulture, Jeonbuk National University, South Korea, where she collaborates with Professor Jun Gu Lee on the physiology of vegetable cultivation. She completed her PhD in 2022, with her dissertation entitled "Evaluation of abiotic stress tolerance in vegetable plug seedlings using non-destructive chlorophyll fluorescence analysis." Cabbage plays a vital role in functional substances such as GSLs (glucosinolates). To cultivate commercial varieties rich in functional GSLs, choosing superior genetic resources from a vast gene pool and establishing a breeding database with higher substance content is essential. A total of 147 cabbage genetic resources underwent screening based on 19 glucosinolate and three sugar standard substances to identify those with outstanding glucosinolate and sugar content. Additionally, cabbage morphology was examined to select commercial varieties tailored to consumer preferences, encompassing leaf shape, head shape, weight, core form, and color. While IT223333 and IT223342 emerged as leading candidates due to their high GSL content, IT223336 was chosen based on sugar content and morphological assessment. This research facilitated the identification of high-performing cabbage genetic resources.

Yu Kyeong Shin won the ISHS Young Minds Award for the best poster presentation at GreenSys2023: International Symposium on New Technologies for Sustainable Greenhouse Systems in Mexico in October 2023.

› Contact

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Black soldier fly frass: a new organic fertilizer or biostimulant?

› Robab Mahmoudi

To feed an estimated population of 9.7 billion by 2050, food production needs to increase significantly while protecting the environment and minimizing food waste. One promising approach lies in organic alternatives to chemical fertilizers and pesticides. Through the farming of insects, organic waste is bioconverted into larval biomass to be used as livestock feed, but the process also generates a new source of organic waste in the form of exuviae and frass, which can be used as crop fertilizers. We hypothesized that the type of diet, processing method, and application rate will influence the effects of black soldier fly (*Hermetia illucens* (L.)) frass (BSFF) on plant growth and substrate properties. To test this hypothesis, we conducted a greenhouse experiment at Université Laval in Quebec, Canada, using six different BSFF made with one of two diets (fruit/vegetable/bakery waste (FVBB) or standard Gainsville diet (GV)) and having undergone one of three processing treatments (no treatment, dehydration, or pasteurization). BSFF was applied at five rates (0, 125, 250, 375, and 500 mg of nitrogen L^{-1}) to tomato (M82) plants, which were cultivated for four weeks. During this time, plant growth, photosynthesis, and growing media parameters were measured. The plants were then harvested for fresh and dry weight measurements. Our study revealed that FVBB frass was superior to GV frass in promoting plant growth and enhancing photosynthesis parameters. This implies that the FVBB frass may be a better source of essential nutrients and may contain compounds or microbial communities that further stimulate plant growth (biostimulants). Processing methods exerted a relatively minor influence on the FVBB diet compared to the GV diet. Finally, higher application rates of frass from both diets correlated with improved plant performance.

Robab Mahmoudi won the ISHS Young Minds Award for the best oral presentation at the IV International Symposium on Organic Greenhouse Horticulture in Mexico in October 2023.

› Contact

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Multiple effects of electrohydrodynamics in a food-grade non-aqueous moringa Pickering emulsion

› Bruno Telli Ceccato

Emulsions, such as creams, dressings and desserts, are an important part of the food industry and our daily lives. However, the food industry rarely explores non-aqueous systems such as oil-in-oil (O/O) emulsions due to the difficulty of finding suitable emulsifiers with hydrophobic nature and the few edible compounds available. Different from typical oil-in-water (O/W) and water-in-oil (W/O), O/O emulsions with little or no water can be utilized for the development of food products where water is not desired, such as encapsulation of water-insoluble bioactive and functional foods. The biggest challenge of this research is to achieve stability of non-aqueous emulsions. To achieve this objective, alternative solutions, such as using an electric field, have been proposed. The advantage of using oils instead of water is the low conductivity of oils, making them suitable and safe for treatment using electricity. This feature allows the use of solid particles as stabilizers, for what are often described as Pickering emulsions. This opens up possibilities for a new trend in food-grade emulsions, such as green-label products. Moringa is perhaps the most nutritious tree in the world, for it contains numerous nutrients and antioxidants in its oil and leaves. In a non-aqueous emulsion, it is possible to combine moringa and other oils to produce a new range of green-label products with desired and healthy properties. In this research, faster emulsification was achieved using an electric field. The multiple effects of electrohydrodynamics (EHD) on a non-aqueous droplet provided valuable insights into the application of food-grade non-aqueous emulsions.

Bruno Telli Ceccato won the ISHS Young Minds Award for the best poster presentation at the III International Symposium on Moringa in Brazil in November 2023.

› Contact

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The use of bumblebees as potential pollinating agents in vertical farming

› Agata Morelli

Food production across the globe is threatened by pervasive drivers of food insecurity such as climate change, scarcity of agricultural resources and human population growth. Vertical farming (VF) technologies offer promising contributions within a sustainable food production framework by alleviating the stress posed by these drivers. However, VF encounters some obstacles, in that these systems are vastly expensive to establish and are constrained to cultivating crops or varieties that are either self-pollinating or would require manual pollination, further increasing labour costs. The objective of this study was to explore the feasibility of insect pollination within VF systems, to potentially decrease labour costs and produce high-quality products. In this pilot experiment, a colony of bumblebees (*Bombus terrestris*) was introduced within a climate-controlled chamber, simulating the conditions of a VF to assess bumblebee behaviour and response within an indoor system with artificial lighting. Four light treatments were assessed: full white, red:blue in the ratio of 3 (RB_3), RB_3 with an addition of white and dark. Ornamental cyclamens (*Cyclamen persicum* v14) were placed under the lights as incentives or baits to stimulate bumblebee activity to determine if they a) exited the hive, b) responded adversely to this synthetic environment, and c) recognised the plants under different light spectra and took up nectar and/or pollen. It was observed that bumblebees exited the hive to visit the plants under all light treatments except the dark, confirming their potential to act as pollinating agents in VF systems. However, as the bumblebees did not return to their hive, we are adjusting the lighting to mirror the natural, crepuscular phase that would direct them back to the hive. Once we have established this, we will explore the introduction of UV and green light to the spectra used, assess if their floral visitations translate into improved fruit yield and then introduce the bumblebees within an active VF.

Agata Morelli won the ISHS Young Minds Award for best fast talk presentation at the III International Workshop on Vertical Farming (VertiFarm2024) in Italy in January 2024.

› Contact

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Environmental life cycle assessment of a pilot aquaponic system

› Elisabet Freyja Henriksson

Elisabet Freyja Henriksson is a PhD student at IVL Swedish Environmental Research Institute and KTH Royal Institute of Technology, Sweden, working on environmental sustainability and circularity in vertical farming. Her current research is focused on aquaponics and life cycle assessments (LCA). Aquaponics is generating interest in terms of its potential to produce both vegetables and high-value protein in the form of fish, in a manner that is often claimed to be more sustainable than traditional alternatives. However, few commercial-scale systems have been assessed for environmental performance using LCA. Dividing the impacts of the system over the two co-products, greenhouse gas (GHG) emissions were 3.4 kg CO_2 equivalents per kg of fresh produce. The GHG impacts were dominated by the cost of electricity, consumables, and the infrastructure. Additionally, potential development scenarios for the system were assessed for their impact. Reusable packaging replacing single-use cardboard, a biodigester for the fish faeces and a reduced photoperiod were found to reduce environmental impacts by 3-6%. However, a novel feed based partially on insects was found to increase impacts by as much as 29%. When the feed was replaced with food waste, the total system impact increased by 6%. These results suggest that aquaponics has potential to be a sustainable food production system, but improvements are needed. Novel fish feeds with lower environmental impact than conventional feeds may reduce the impacts of aquaponics, as the feed was the major contributor to impact the "consumables" category. Improved energy use efficiency is however paramount to reduce the environmental impacts of aquaponics.

Elisabet Freyja Henriksson won the ISHS Young Minds Award for best fast talk presentation at the III International Workshop on Vertical Farming (VertiFarm2024) in Italy in January 2024.

› Contact

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Distant hybridization of *Hemerocallis* with *Eremurus* and *Lycoris*

› Yi Lv

Yi Lv is a Ph.D student at the School of Landscape Architecture, Beijing Forestry University, China, under the supervision of Prof. Yike Gao. Cooperating with her co-workers, Yi Lv has conducted distant hybridization breeding between *Xanthorrhoeaceae* and *Amaryllidaceae*. Distant hybridization is expected to result in new progenies with traits from genetically different species. This should enable plant producers to respond to new demands and global climate change. However, genetic differences between divergent species often result in strong reproductive isolation, making it very difficult to obtain progeny. To expand plant variation and to investigate the characteristics of distant hybrids, the team carried out a ten-year study of inter-generic and inter-family distant hybridization breeding research. Cooperating with the Hangzhou Botanical Garden, they chose *Hemerocallis* and *Eremurus* from the *Xanthorrhoeaceae*, and *Lycoris* and *Clivia* from the *Amaryllidaceae* as parental plants. A distant hybridization breeding system was established to increase the breeding efficiency and overcome reproductive isolation. After pollinating tens of thousands of flowers, they found that different floral sizes and flowering periods created an interaction barrier between stigma and pollen which triggered severe prezygotic isolation, and that different chromosome numbers triggered postzygotic isolation. Although the reproductive isolation was severe, through the use of artificial pollination treatments and embryo rescue, they obtained a few inter-family hybrids. The hybrids were identified by chromosome analysis and molecular markers. All of the hybrids are similar to the mother plants in yearly growth rhythm and morphological traits with slight variations but they do not show intermediate traits like traditional hybrids that are obtained by crossing between closely related plants. This study provides technical support for accelerating distant hybridization breeding and lays a foundation for the study of the variation characteristics of distant hybrids.

Yi Lv won the ISHS Young Minds Award for the best oral presentation at the XIV International Symposium on Flower Bulbs and Herbaceous Perennials in Poland in April 2024. The National Natural Science Foundation of China supported this research.

› Contact

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Do recently released cultivars of *Ranunculus* and *Anemone* still need vernalization?

› Sara Benchaa

Sara Benchaa is a PhD student at Laval University in Quebec City under the supervision of Prof. Line Lapointe. Sara is focused on optimizing vernalization and cultivation conditions for the greenhouse production of *Anemone coronaria* and *Ranunculus asiaticus*. As climatic conditions in the Quebec region do not support a diverse range of early spring cut flowers, starting plants in greenhouses and, for many, resorting to forcing, is necessary to produce various flower varieties earlier in the season. Although *Anemone* and *Ranunculus* are prized species that can be forced, it is essential to optimize conditions during vernalization (cold treatment) and growth (temperature, light, photoperiod). This ensures optimal yields and better synchronization between supply and demand in the local market, which fluctuates greatly from week to week due to events such as Easter, Mother's Day, and weddings.

Sara's research involves conducting experiments in controlled conditions (cold rooms and growth chambers) and semi-controlled conditions (greenhouses and tunnels) using *Anemone* tubers and *Ranunculus* tuberous roots as plant material. She tested how exposing these organs to different vernalization conditions (3 temperatures × 4 durations) in greenhouses (March/April) and then in tunnels (May to July) impacted flower production. Additionally, she evaluated the performance of plants under different growth temperature regimes, including the impact of lower soil temperatures. The various treatments were assessed in terms of yield, flower quality, tuber/tuberous root production, and synchronization with market demand. *Anemone* cultivars tested during this study appear to be negatively affected by vernalization. *Ranunculus* cultivars did not display signs of vernalization stress, even at the lowest temperature. The longest vernalization duration hastened flower production rather than temperature. The experiments on growth temperature showed that it is possible to cultivate these species at cooler temperatures, thereby reducing heating costs, in addition to producing higher quality flowers and larger storage organs by the end of the season.

Sara Benchaa won the ISHS Young Minds Award for the best poster presentation at the XIV International Symposium on Flower Bulbs and Herbaceous Perennials in Poland in April 2024.

› Contact

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This space is for you

We, the Board, are cognisant that *Chronica Horticulturae* is the primary communication vehicle for our Society. However, it is largely one way – and that's something that we would like to change.

We would like to hear from you – what issues concern you – do you have things you would like to say – or contributions you might wish to make on articles we have presented.

By email, please submit your comments and contributions to **peterjbatt@gmail.com**, Editor of *Chronica Horticulturae,* or **kelly.vandijck@ishs.org**, Associate Editor of *Chronica Horticulturae*.

Upon receipt, we will direct your correspondence to the appropriate member of the Board, but we reserve the right to exercise appropriate editorial control over all submissions received.

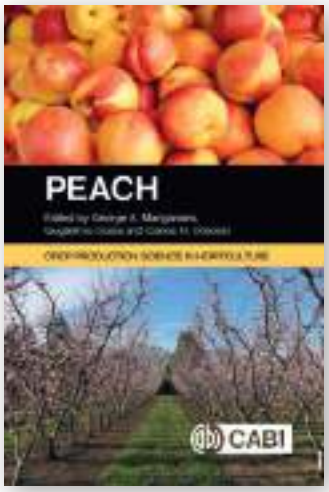
In publishing your contributions – and our response – we will identify you only by using your first name and country, unless you request otherwise.

The world of Horticulture

› New books, websites

Book reviews

The books listed below are non-ISHS-publications. For ISHS publications covering these or other subjects, visit the ISHS website www.ishs.org or the *Acta Horticulturae* website www.actahort.org



Manganaris, G.A., Costa, G., and Crisosto, C.H., eds. (2023). Peach (Wallingford, Oxfordshire, UK; Boston, MA, USA: CAB International), pp.458. ISBN 9781789248432 (paperback) / 9781789248449 (ePDF) / 9781789248456 (ePub). €70 / $80.

A 25% discount will be received by entering the code "CON25" when ordering through https://www.cabidigitallibrary.org/doi/book/10.1079/9781789248456.0000

This edited volume of Peach presents state-of-the-art information on the production, breeding and horticultural practices associated with the cultivation, handling and marketing of peaches, as well as the biology and management of common pests and diseases peach growers must control. The book provides exceptionally clear and practical information that will likely be of interest to academics as well as growers who are truly interested in this important crop. The initial chapter provides an interesting history and description of the characteristics of different types of peaches. The second chapter provides detailed descriptions of the numerous management styles of training and pruning peach trees, and provides information for understanding the rationale for, and responses to different pruning practices. The third chapter provides an exhaustive review of the rootstocks used for peach production in different parts of the world. This chapter provides summary descriptions of the most important rootstocks, including their genetic background and development. This chapter and the following one on peach breeding and cultivar development are enough to make this book a must read for any peach researcher and pomologist seriously interested in understanding the genetic and biological underpinnings of commercial peach production. The following chapters on irrigation and fertilization are relatively brief and provide information on common practices. While substantial research on attempts to identify irrigation methods and practices that can be used to conserve water, as well as the effects of water deficits on peach fruit size and quality have been undertaken, this is only lightly covered. Similarly, problems with over-fertilizing with N and management of other important nutrients such as potassium and zinc are barely mentioned in the chapter on fertilization and nutrient management. In my opinion the two chapters on fruit thinning and fruit growth are the weakest in this book. Fruit thinning is one of the most important and expensive practices involved in successfully growing peaches. The chapter on fruit thinning simply states the importance of thinning for attaining fruit size and then gives a brief description of methods of thinning. To understand responses to fruit thinning, one must first understand fruit growth and the factors that drive fruit growth. The fruit growth and development chapter provides exhaustive detail on the molecular biology and metabolic compounds involved in different aspects of fruit development and fruit quality characteristics but provides little information about what drives peach fruit growth and how temperature and crop load influence fruit growth. Over the past thirty years extensive research has demonstrated that peach fruit growth is controlled by genetically determined, dynamic patterns of relative growth rates that are strongly influenced by temperature and time. Understanding the concepts of relative growth rates as they relate to regulating fruit growth through a growing season are key to understanding fruit growth responses to fruit thinning and crop load, as well as how seasonal temperatures affect fruit size. Regrettably, these chapters ignore this important aspect. The following three chapters deal with fruit maturity and quality assessment, postharvest protocols and fruit quality, and are again more practically oriented and provide excellent, useful information on monitoring and maintaining fruit quality from the field to the market. Like some of the earlier chapters, these chapters are a must read for readers interested in the later aspects of peach supply chain management. The subsequent three chapters on pre- and postharvest diseases, as well as the biology and management of insect pests, are very practical and beautifully illustrated with pictures that can help anyone identify maladies and understand what is required to manage these issues. While the majority of this book is focused on fresh market peaches, the final chapter covers aspects of canned peach production, especially in California and Greece. Overall, this volume makes a substantial contribution to the practical literature on peach biology, production, management and handling. It is more practically oriented than some of the previous, relatively recent publications on the subject. I would recommend it to anyone who is seriously interested in peach production and management.

Reviewed by Theodore M. DeJong, University of California, Davis, USA

› Courses and meetings

The following are non-ISHS events. Be sure to check out the Calendar of ISHS Events for an extensive listing of all ISHS meetings. For updated information, log on to www.ishs.org/calendar

18th Congress of the European Society for Agronomy, 26-30 August 2024, Rennes, France. Info: e-mail: esa2024@institut-agro.fr, web: https://esa2024.institut-agro.fr

Summer School Greenhouse Horticulture, 26 August - 6 September 2024, Wageningen, The Netherlands. Info: Janine Quist, Wageningen University & Research, The Netherlands, e-mail: janine.quist@wur.nl, web: https://www.wur.nl/en/show/summer-school-greenhouse-horticulture.htm

IV Asian Horticultural Congress (AHC2023)

The IV Asian Horticultural Congress (AHC2023) was held at the Hongo and Yayoi campuses of the University of Tokyo, Japan, from August 28-31, 2023. As this year coincided with the centennial anniversary of the Japanese Society for Horticultural Science (JSHS), preceding the congress, a centennial commemorative ceremony for the Society was conducted.

The Asian Horticultural Congress has been held in several Asian countries and regions since 2008. Distinguished representatives from horticultural societies across Asia, including President Xiu-xin Deng of the Chinese Society for Horticultural Science and President Changhoo Chun of the Korean Society for Horticultural Science, as well as researchers and professionals from around the world, participated in AHC2023. In anticipation of the XXXII International Horticultural Congress (IHC2026) to be held in Japan, AHC2023 was held under the aegis of the International Society for Horticultural Science (ISHS), with President François Laurens and other ISHS Board members in attendance.

Despite concerns about reduced participation due to the impact of COVID-19, there was an unexpectedly high turnout, with a total of 876 registered participants from 35 countries and regions, including 452 from Japan, 129 from Korea, 98 from China, 53 from Thailand, 50 from Taiwan, and 13 from Indonesia. Notably, 264 students participated in the event, almost one-third of the total registrations.

› Participants at Ito Hall, Ito International Academic Research Center, Hongo Campus.

The theme of the congress was "Heritage and Innovation for Future Asian Horticulture," which aimed to reevaluate the human and natural resources that have supported the development of Asian horticulture over its long journey and to consider what role innovation might play for the next 100 years. In Asia, horticultural research is not only diverse in culture, geography and natural resources, but is also gaining increasing importance due to significant population growth and the environmental challenges associated with development. However, communication among researchers in

› Group photo at Yayoi Auditorium, Yayoi Campus.

› François Laurens (ISHS President), Saneyuki Kawabata (Convener of AHC2023), and Patrícia Paiva (ISHS Vice-President in charge of Young Minds) presenting the ISHS Young Minds Awards to A) Lijun Zhou (best oral presentation), B) Misaki Inoue (best poster presentation).

Asia is not sufficient due to the geographic expanse of the region and language barriers. In particular, AHC2023 focused on promoting research exchanges and initiatives to encourage young researchers who will lead horticultural research in the future. To facilitate student participation, registration fees were reduced and a number of additional awards were presented by AHC2023 to recognize outstanding achievements.

The opening ceremony, which was held in the Ito Hall on August 28, featured keynote speeches on horticulture in Japan, Korea and China. Former JSHS President Yoshinori Kanayama spoke on "Research and technology in the history of the Japanese Society for Horticultural Science," President Changhoo Chun talked about the "Horticultural industry in Korea – trends and challenges," while President Xiu-xin Deng presented a "Review and prospect of horticultural development in China over the past 40 years."

Oral presentations were organized into nine sessions entitled: "Fruit tree science, plant physiology and breeding", "Floriculture: biochemical and molecular aspects", "Production systems, hydroponics and soil", "Vegetable science, production systems and urban agriculture", "Genetic resources and breeding", "Postharvest physiology", "Plant protection", "Seed, sustainability and economics", and "Genetic modification and breeding", with a total of 7 invited lectures, 176 oral presentations and 353 posters, all of which resulted in lively discussions. The Ito International Academic Research Center and Yayoi Auditorium hosted exhibition booths for 12 companies, with a joint luncheon seminar conducted by four companies on August 30. Of particular interest was the summer-adapted mini greenhouse constructed by four companies within the venue.

The closing ceremony on August 30 saw the presentation of the Young Minds Awards by ISHS to Lijun Zhou from Beijing Forestry University, China, for the best oral presentation entitled "Multi-omics reveals release rhythm, biosynthetic mechanism and commercial uses of tea scent in *R. gigantea*" and Misaki Inoue from The University of Tokyo, Japan, for the best poster presentation entitled "A comprehensive transcriptome-based characterization of genes involved in floral organ formation, thermogenesis, and growth

› Closing ceremony with representatives and members of the executive committee from Korea, China, Thailand, Taiwan, and Indonesia.

› Participants under Japanese pear trees in Kurokawa Field Science Center of Meiji University.

› Hydroponic tomato production system of Japan Plant Factory Association, which is located in the Chiba University campus.

phase transition in *Nelumbo nucifera*". Four additional awards from AHC2023 were presented to Yosuke Fujiwara, Kanako Matsuse, Rise Morimoto and Han-Sol Lee.

Following remarks from Executive Committee Chairman Saneyuki Kawabata, complimentary speeches were delivered by President Changhoo Chun of Korea and representatives from the Chinese, Thai, Taiwanese and Indonesian Societies for Horticultural Science. The congress concluded with a welcome message to the next AHC from President Slamet Susanto of the Indonesian Society for Horticultural Science. Looking ahead to the next AHC in Indonesia, it is hoped that the horticultural research community in Asia will become even more closely knit to collaboratively advance future development.

On August 31, technical tours were conducted in Tsukuba, Chiba, Tokyo and Kawasaki. From August 31 to September 2, an excursion focusing on the agricultural use of renewable energy in the Tohoku region was organized, along with a co-hosted seminar with Tohoku University and a visit to the synchrotron radiation facility NanoTerasu. These tours collectively attracted over 150 participants.

We express our sincere gratitude to the 35 sponsoring companies and the 140th Founding Anniversary Fund of the Graduate School of Agricultural and Life Sciences, The University of Tokyo, for their support in organizing this congress. We extend our heartfelt thanks to all who supported the congress and contributed to its success, including the organizing committee and the participants.

Saneyuki Kawabata

› Contact

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› XII International Workshop on Sap Flow

Division Precision Horticulture and Engineering #ishs_deng

Division Physiology and Plant-Environment Interactions of Horticultural Crops in Field Systems #ishs_dphy

The XII International Workshop on Sap Flow was held in Rotorua, New Zealand, from October 30 to November 3, 2023. The workshop was attended by 72 people from 15 countries, and included five invited speakers, 38 oral and 16 poster presentations. Convened by ISHS Working Group Sensing Plant Water Status, the goal of the workshop series is to share the latest advances in measuring water availability and movement in plants. The theme of the Rotorua meeting was "Sap flow in a diverse and changing world", reflecting the diversity of both the practitioners involved, and the application of their science in addressing global issues linked to water and plants.

The workshop was opened by a traditional welcoming ceremony (Mihi Whakatau), led by representatives of the local Māori iwi, Ngāti Whakaue. Session themes included methodology, crop management, stress and climate change, vascular functioning and ecophysiology and hydrology. Each theme was opened by one of five invited speakers: Dr. Steve Green (Plant and Food Research, New Zealand), Professor Benye Xi (Beijing Forestry University, China), Professor Christine Scoffoni (California State University, USA), Professor Brendan Choat (Western Sydney University, Australia), Professor Cate Macinnis-Ng (University of Auckland, New Zealand). Highlights included presentations and discussions around the techniques for measurement of xylem and phloem sap flow, measurement of crop and tree water status across scales from individual organs to plants and entire forests, the use of plant-based sensors for irrigation scheduling

and crop management, compilation and use of a global dataset of sap flow measurements (SAPFLUXNET), and advances in our understanding of plant responses to water stress, drought and climate change.

ISHS Young Minds Awards were presented to PhD candidates Katrien Schaepdryver (Ghent University, Belgium) for the best oral presentation entitled "Quantification of sap flux density and stem water content of oak and beech by using the Sapflow+ method" and Muthianzhele Ravuluma (University of the Free State, South Africa) for the best poster presentation entitled "Sap flow dynamics of young and mature pomegranate orchards under semi-arid condition". Professor Josef Urban (Mendel University, Czech Republic) led a discussion in recognition of the contributions of Professor Jan Čermák, a pioneer in the understanding of tree biology and sap flow, and a strong supporter of the workshop series, who passed away in 2021.

Two field trip options were offered to workshop participants – a visit to the horticultural area of the Bay of Plenty, known as the heart of kiwifruit industry in New Zealand, or a visit to the vast Kaingaroa plantation forest, followed by a walk in the Whirinaki Te Pua-a-Tāne Conservation Park, a pristine natural old-growth forest featuring towering indigenous podocarp trees. Both trips included demonstrations and discussions around the use of sap flow sensors, dendrometers and other technology for measurement of plant water status and growth. In the Bay of Plenty, the group was hosted by the Te Puke Research Centre of Plant and Food Research. At Whirinaki, the group was welcomed by Earl Rewi, representing the local iwi and mana whenua, Ngati Whare.

Now in its twelfth iteration, the workshop series has a long history (more than 30 years), and was

› Visit to a research site within the Kaingaroa plantation forest.

› Sebastian Leuzinger presenting the ISHS Young Minds Awards to A) Katrien Schaepdryver (best oral presentation) and B) Muthianzhele Ravuluma (best poster presentation).

› Participants of the workshop.

initially stimulated by early advances in the measurement of sap flow in trees. The workshop was first held under the aegis of the ISHS in Sevilla, Spain, in 2008, its 7th iteration. The sap flow workshop is perhaps a little unique amongst ISHS symposium series in that contributors are drawn not only from horticulture, but also from a wide variety of other plant science disciplines, including basic plant physiology, horticulture, agriculture, forestry, hydrology and ecology. What seems to unite the group is a common joy and fascination in being able to measure and understand one of the most fundamental aspects of plant biology – the transport and exchange of water for photosynthesis and growth.

During the workshop participants elected Professor Rafael Poyatos (CREAF/Universitat Autonoma de Barcelona, Spain) as the new Chair of ISHS Working Group Sensing Plant Water Status, and thanked the outgoing Chair, Professor Jochen Schenk (California State University, USA) for his service to the workshop series. The group also voted for the next workshop to be held in Stellenbosch, South Africa, in 2026, to be hosted by Dr. Phumudzo Tharaga (University of the Free State) and Professor Rob Skelton (University of Witwatersrand). As chair of the local organising committee for the 12th workshop, I would like to thank the committee members (Cate MacInnis-Ng, Dean Meason, Sebastian Leuzinger, Matthew Watson, Jonghyun Choi, Steve Green) for their support, and also acknowledge the vital support of our many sponsors, in particular the event partner ICT International, as well as the broader scientific committee and all of those who attended and contributed to make the workshop a success.

Michael Clearwater

› Earl Rewi describes how his tribe is connected to the indigenous podocarp forest at Whirinaki.

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› III International Symposium on Moringa

Division Horticulture for Human Health #ishs_dhea

The International Symposium on Moringa is the primary means for researchers and practitioners from all around the world to interact, communicate and disseminate the results of their work in relation to *Moringa oleifera* Lam (moringa) This fast growing, drought resistant tree is widely cultivated for its seed pods and leaves, which are used as a vegetable, a medicinal plant and for the production of essential oils.

The III International Symposium on Moringa (ISM) was held at the Sergipe Technology Park from 8 to 10 November 2023 in São Cristóvão, Sergipe, Brazil, and was organized by the Moringa Association of Brazil, the Federal University of Sergipe, the Federal Institute of Education, Science and Technology of Bahia – Ilhéus Campus, and the Sergipe Technology Park (Sergipetec), under the aegis of the International Society for Horticultural Science (ISHS). The event was attended by over 100 participants from many different countries.

The III ISM encompassed various thematic areas: agricultural production, oil processing, water and effluent treatment, bioactivities, pharmacology, human and animal nutrition and the general use of moringa. The audience was comprised of researchers, professors, doctoral students, master's students, undergraduate students, researchers from rural extension institutes and companies, industry professionals and agricultural producers.

› Symposium organizers and participants during ISHS business meeting.

During the III ISM, 12 oral and 8 poster papers were presented. In addition, 12 lectures were given by representatives from various countries, who discussed the potential of moringa as a natural coagulant, as an animal feed, as well as topics including ecological techniques for extracting compounds from the moringa plant, and herbal teas fortified with moringa. Topics such as agricultural production, the potential of moringa in Armenia and Hawaii, the toxicity and pharmacological activities of preparations of moringa flowers, leaves and seeds, and the various challenges and opportunities associated with the plant's applications around the world were discussed at the symposium.

Over the three editions of the ISM, relationships between professors, students, business professionals and rural producers have been strengthened, encouraging companies to seek partnerships with universities and research institutes to carry out work of mutual interest.

The III ISM aimed to strengthen the research carried out on moringa, as well as to generate a dossier that will be presented to the National Health Surveillance Agency (Anvisa), showing the global importance of this plant with its multiple uses in human nutrition. It was possible to discuss possibilities for collaboration, thus encouraging a social return on government investment in research and technical-scientific exchange between the various research institutions. As concern

› Mahmoud A. Sharafeldin (left), former Chair of ISHS Working Group Moringa, congratulating Arthur Begliomini (right), the new Chair of the Working Group.

› Bruno Telli Ceccato, winner of the ISHS Young Minds Award for the best poster presentation.

› Presentation of moringa products.

for the environment grows, new areas of research are emerging to develop efficient and sustainable technologies.

The ISHS Young Minds Award was presented to Bruno Telli Ceccato from the State University of Campinas, Brazil, for the best poster entitled "Multiple effects of electrohydrodynamics in a food-grade non-aqueous moringa pickering emulsion".

The IV International Symposium on Moringa will be organized by Dr. Carrie Waterman in San Diego, CA, USA in October 2027.

Daiane Farias Pereira Suffredini

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› VertiFarm2024: III International Workshop on Vertical Farming

Division Landscape and Urban Horticulture #ishs_durb
Division Precision Horticulture and Engineering #ishs_deng
Division Protected Cultivation and Soilless Culture #ishs_dpro

Embracing a future rooted in innovation, vertical farming took centre stage at this year's highly anticipated international workshop, VertiFarm2024. In the global push to achieve sustainable agriculture, vertical farming is paving the way for modern, sustainable plant production. Vertical farming encompasses the cultivation of plants in multiple layers in climate-controlled environments, supplemented with artificial lighting. Vertical farming is reforming how we produce food, whilst simultaneously enriching our knowledge of plant biology and physiology, cultivation systems and resource use.

The III International Workshop on Vertical Farming promoted the dissemination and communication of all topics related to vertical farming from agronomy and agriculture, policy interventions and economics. It shed light on the current advances and understanding of these systems, creating space for networking and discourse on the priorities and challenges of the sector.

VertiFarm2024 was held between January 16 and 19, 2023, at Palazzo Re Enzo in Bologna, Italy, under the auspices of the ISHS and organised by the Research Centre on Urban Environment for Agriculture and Biodiversity (ResCUE-AB) of the Department of Agricultural and Food Sciences (DiSTAL) of Alma Mater Studorium, University of Bologna. The workshop brought together over 200 participants from 31 different countries, with almost 100 speakers and 15 sponsors. The two conveners, Prof. Francesco Orsini, University of Bologna and Chair of ISHS Division Landscape and Urban Horticulture, and Dr. Giuseppina Pennisi, University of Bologna, led this multidisciplinary workshop. The event aimed to promote the dissemination of current research on vertical farming involving indoor cultivation experts and technical operators.

From researchers, agronomists, informatics, investors, entrepreneurs, companies and policymakers, the workshop was able to unite different disciplines and broaden participants' perspectives of vertical farming. The audience was very diverse, with 62% of attendees coming from research institutions, 35% from companies and enterprises, 2% were policy makers, and 1% investors. More than 80 participants came from the private sector.

The program was structured in multiple thematic sessions, enriched by industry experts and thought leaders who took the stage to share their insights and expertise. The workshop commenced with an opening ceremony led by the conveners, who introduced the first thematic session "Visions for system innovation," which was led by keynote speakers Prof. Stefania De Pascale (University of Naples Federico II), Dr. Giuseppina Pennisi (University of Bologna) and Prof. Ep Heuvelink (University of Wageningen). The session concluded with a "New crops" session fronted with the first invited and oral presenters.

› Organising Committee – ResCUE-AB of the University of Bologna.

The second day of the workshop was opened by keynote speaker Dr. Eri Hayashi (vice president of the Japan Plant Factory Association) who presented on plant factory innovations for sustainable well-being. It was followed by other thematic sessions on "Lights," including a notable talk on the optimisation of this characteristic in vertical farming by Prof. Leo Marcelis (University of Wageningen), "Sensors" and "Sustainability". This day was rich in content and split into parallel sessions. One of the most engaging and interactive workshops was on medical cannabis in controlled-environments, hosted by Prof. Bruce Bugbee (Utah State University) and Dr. Mexx Holweg (University of Wageningen).

The last day began with the thematic sessions on "Climate control," underlined by keynote speaker Prof. In-bok Lee (University of Seoul) on future-oriented approaches of aerodynamic and energy engineering for protected cultivation systems, "Crop management," "Metabolites" and "Resource use efficiency," by Prof. Murat Kacira (University of Arizona). The last day also focused on the social challenges and sustainability issues that vertical farming faces. This was addressed by Dr. Michele Ostuni and Dr. Tess Blom, with a presentation by Prof. Michael Martin (KTH Royal Institute of Technology) on the general sustainability of vertical farming and lifecycle assessments.

Not only did VertiFarm2024 stimulate the minds of its participants with valuable scientific content, but the social program was the perfect treat to celebrate and stimulate new connections, contacts and collaborations. The values of sustainability were strongly imprinted across all social events, with locally sourced food and ingredients, to the elaborate, handcrafted glass crockery, thanks to the Eta Beta social cooperative.

The workshop began with a welcome cocktail party, presenting a wide range of appetisers, wine and drinks, accompanied by live music and a Brazilian dancer. The social dinner was an ode to Bologna, serving traditional dishes of the region including the famous tortellini, elevated by the touch of award winning chef, Max Poggi, who collaborated with Eta Beta to provide these memorable meals. The dinner was washed down by a Brazilian percussion band whose beats were the perfect way to bring everyone together for a dance.

At the ISHS business meeting, the activities of the Working Group Vertical Farming and the venue for the next VertiFarm2027 workshop in Ghent, Belgium, were defined.

At the closure of the workshop, the ISHS Young Minds Award for the best fast talk presentation was shared between two young female presenters: Elisabet Henriksson from the KTH Royal Institute of Technology, Sweden, for her presentation entitled "Environ-

› The two conveners: A) Dr. Giuseppina Pennisi and B) Prof. Francesco Orsini.

› Technical visit to A) Agricola Moderna and B) Bosco Verticale.

mental lifecycle assessment of a pilot aquaponic system" and Agata Morelli, from the University of Bologna, Italy, for her presentation on "The use of bumblebees as potential pollinating agents in vertical farming."

The workshop ended with two technical visits: one to Milan and one to Bologna. The excursion to Milan commenced with a guided tour at Agricola Moderna, the first vertical farm in Italy, and ended with a picturesque lunch at the foot of the Bosco Verticale, a prize-winning skyscraper with over two thousand tree species integrated within the building. The tour to Bologna showcased the research facilities of the Department of Agricultural and Food Sciences of the University of Bologna, including its experimental vertical farm (AlmaVFarm), greenhouse and light laboratory. It also took a detour to Salus Space, a social cohousing project where two shipping containers have been transformed into farms for plants and mushrooms. Both technical visits provided a fantastic finale to the workshop, leaving participants with lasting memories and a sense of fulfilment.

Agata Morelli, Michele D'Ostuni and Giuseppina Pennisi

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› Winners of the ISHS Young Minds Awards: Elisabet Henriksson (left) and Agata Morelli (right), sharing the award for best fast talk presentation.

› XI International Symposium on Kiwifruit

Division Vine and Berry Fruits	#ishs_dvin
Division Plant Genetic Resources and Biotechnology	#ishs_dbio
Division Postharvest and Quality Assurance	#ishs_dphq
Division Temperate Tree Fruits	#ishs_dfru

The global kiwifruit science community came together from 20-24 February 2024 for the XI International Symposium on Kiwifruit under the theme of 'Diversifying for Future Uncertainty'. Under the auspices of the International Society for Horticultural Science (ISHS), the event was hosted jointly by The New Zealand Institute for Plant and Food Research Ltd (PFR) and Zespri at the Mercury Baypark Arena in Mount Maunganui, New Zealand. There were more than 230 attendees present from 17 countries.

The symposium was opened with a plenary talk by Kate Meyer, 'Planetary facts of a kiwifruit'. The scientific presentations covered a wide range of kiwifruit science, with 76 oral presentations and 42 posters. Talks covered a range of different areas of research including genetics and breeding, vine management, control of pests and diseases, fruit quality and postharvest systems. Keynote scientific presentations were made by Francesco Spinelli, "Kiwifruit vine decline syndrome and

› The local organising committee. From left to right: Sarah Pilkington (co-convener), Simona Nardozza, Jem Burdon, Yvonne McDiarmid (all PFR), Greg Clark, Juliet Ansell (co-convener) and Nikita Fraser (all Zespri). Liz Duston (PFR) not present.

› Participants of the symposium.

› From left to right: Arif Atak, Vice-Chair of ISHS Division Vine and Berry Fruits, Andrea Strano, winner of the ISHS Young Minds Award for the best poster presentation, and Olivia Kelly, winner of the ISHS Young Minds Award for the best poster presentation.

other emerging and re-emerging biosecurity challenges", and Takashi Akagi "Boy meets girl, everywhere? Mysteries in neo-sex chromosome evolution in kiwifruit".

Attendees had the opportunity to participate in two workshops: "Fruit quality: mind the gap" hosted by Frank Bollen and Jem Burdon, and "Carbon farming and hi-tech tools for climate resilience in the orchard" hosted by Steve Green and Marco Mastroleo. ISHS Young Minds Award winners were PhD student Olivia Kelly from the University of Auckland and Plant & Food Research, New Zealand, for her oral presentation entitled "Investigation into the transcriptional regulation of stigma death in *Actinidia chinensis*" and PhD student Andrea Strano from the University of Bologna, Italy, for his poster entitled "Use of LED lighting in postharvest and its effect on kiwifruit quality". Poster sessions, orchard and packhouse technical visits, and the symposium dinner, along with breaks between sessions, all provided ample opportunity for interactions and scientific discussions among the attendees.

We would like to thank all of our sponsors and exhibitors, without whose support these events would not be possible. The next International Symposia on Kiwifruit will be held in Matera, Italy, on 6-9 September 2027 (https://www.ishs.org/symposium/782) and then in Thessaloniki, Greece in 2030.

Jeremy Burdon, Simona Nardozza and Sarah Pilkington

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From the Secretariat

› New ISHS members

ISHS is pleased to welcome the following new members:

New Individual Members

Algeria: Assoc. Prof. Wissem Chaichi, Dr. Karim Terra; **Australia:** Dr. Dante Adorada, Ms. Gengning Chen, Ya Cho, Dr. Amnon Haberman, Ms. Imsubenla Nokdy, Ben Reilly, Mr. Hafiz M Shoaib Shah, Ms. Hanna Toegel, Mr. Michael Trautwein; **Austria:** Mr. Maximilian Eiswirth; **Belgium:** Dr. Pierre Lejeune, Kris Ruysen, Ms. Pauline Voorbraak; **Brazil:** Renaldo Borges de Andrade Júnior, Arthus Zanrosso; **Canada:** Ms. Naomi Jakel; **Chile:** Mr. Matías Kulczewski, Mr. Francisco Quintanilla; **China:** Prof. Dr. Jian-ye Chen, Assoc. Prof. Yanmin Du, Dr. Doudou Guo, Prof. Wei Guo, Prof. Dr. Hongju He, Yanhai Ji, Prof. Dr. Yun-Song Lai, Dr. Yang Li, Assoc. Prof. Zunyang Song, Prof. Dr. Tongbing Su, Dr. Kaili Wang, Dr. Yaqin Wang, Prof. Yongping Yang, Dr. Ning Yuan, Prof. Dr. Kaifang Zeng, Prof. Ying Zhang, Xiaoyan Zhao, Yuqi Zhu, Dr. Yuanyuan Zong; **Chinese Taipei:** Assist. Prof. Chang-Lin Chen, Ms. Hsiao-Chun Chen, Meng-Ying Li, Ming-Ru Liu, Yu-Lun Liu, Assoc. Prof. I Chun Pan, Ching-Chi Tsai, Nai-Hua Ye; **Colombia:** Prof. Dr. Guillermo Arrazola, Ms. Luz Mantilla; **Costa Rica:** Dr. Ronald Romero; **Cyprus:** Mr. Giannis Neofytou; **Czech Republic:** Dr. Eva Baldassarre Svecova, Prof. Dr. Ales Lebeda; **Ecuador:** Ms. Maria Elena Guerrero, Mr. José Gabriel Nuez Vasquez, Ms. Claudia Oña, Ms. Mishell Recalde; **Estonia:** Dr. Natallia Klakotskaya; **France:** Dr. Lucile Cornet-Vernet, Dr. Bouchaib Khadari, Dr. Sylvie Masquelier, Prof. Doina Petrescu, Dr. Coline Pons, Mr. Johnrell Zuniega; **Germany:** Ms. Kelly Baldwin Heid, Mr. Lukas Fichtl, Mr. Konrad Neuberger, Karl Weber; **Ghana:** Dr. Laura Atuah, Dr. Leonard Rusinamhodzi; **Greece:** Ms. Spyridoula Chavalina, Dr. Ioannis Daskalakis, Dr. Andreas Doulis, Dr. Panagiotis Kalozoumis, Ms. Andriana Karachaliou, Dr. Nikos Krigas, Dr. Filippa Maniou, Ms. Eirini Xaxiri; **Guadeloupe:** Michel Vespasien; **Hungary:** Mr. Máté Balázs, Dr. Kata Ludman-Mihály, Dr. Anikó Veres; **India:** Dr. Abirami K, Mr. Ajay Kanoria, Dr. Sudhakara N R, Prof. Jeyakumar Prabhakaran; **Iran:** Assoc. Prof. Mojtaba Delshad; **Iraq:** Assist. Prof. nasik Mustafa; **Ireland:** Mr. Gareth Austin; **Israel:** Dr. Evgeni Eltzov, Dr. Assaf Eybishitz, Ms. Michal Lahack; **Italy:** Francesco Abbatantuono, Mr. Pietro Bellitto, Prof. Dr. Anina Bonasia, Stefano Brizzolara, Dr. Antonella Cammarelle, Dr. Emanuela Campana, Prof. Antonino F. Catara, Prof. Dr. Luisella Celi, Dr. Virginia Cioncoloni, Samuele Crescenzi, Prof. Maria Dalla Francesca, Dr. Michael Gasser, Michele Gullino, Ms. Valeria Imperiale, Dr. Agata Lizzio, Victor Mari Almirall, Dr. Andrea Mati, Dr. Distefano Miriam, Dr. Angelina Nunziata, Prof. Maria Luigia Pallotta, Gaia Pelizzatti, Alessandro Quadri, Prof. Dr. Cristina Restuccia, Ms. Sundus Riaz, Ms. Greta Ricci, Chiara Rutigliano, Ms. Bianca Sambuco, Dr. Andrea Strano, Dr. Giulia Tarquini, Prof. Dr. Luigi tedone, Dr. Paolo Valfrè, Sara Vignati, Ms. Lorena Vultaggio,

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› Calendar of ISHS events

For updates and more information go to www.ishs.org › calendar of events. For a comprehensive list of meetings in each Division or Working Group use the "science" option from the website navigation menu. To claim reduced registration for ISHS members, your personal membership number is required when registering - ensure your ISHS membership is current before registering. When in doubt sign in to your membership account and check/renew your membership status first: www.actahort.org or www.ishs.org

Year 2024

- June 24-27, 2024, Wenatchee, WA (United States of America): **X International Symposium on Plant Nutrition of Fruit Crops.** Info: Assoc. Prof. Lee Kalcsits, Washington State University, WSU-TFREC, Wenatchee, WA 98801, United States of America. Phone: (1)5096638181, E-mail: lee.kalcsits@wsu.edu Web: https://ishsplantnutrition.com/

NEW

- July 10-12, 2024, Reading (United Kingdom): **XVI International People Plant Symposium.** Info: Prof. Dr. Sin-Ae Park, 225 Life and Environment Science building, 05029 Seoul, Korea (Republic of). E-mail: sapark42@konkuk.ac.kr or Ms. Rebecca Haller, 1432 Grape Street, Denver, CO 80220, United States of America. E-mail: rhaller@htinstitute.org or Mr. Damien Newman, Thrive, The Geoffrey Udall Centre, Beech Hill, RG7 2AT Berks Reading, United Kingdom. Phone: 01189 885688, E-mail: damien.newman@thrive.org.uk
- August 24-29, 2024, Halifax, Nova Scotia and Charlottetown, Prince Edward Island (Canada): **XIII International Vaccinium Symposium.** Info: Prof. Dr. David Percival, Dalhousie University, Department of Plant, Food, and Environmental Sciences, PO Box 550, Truro, NS B2N 5E3, Canada. Phone: (1)9028937852, Fax: (1)9028931404, E-mail: david.percival@dal.ca Web: http://www.Dal.ca/ivs
- September 17-20, 2024, Warsaw (Poland): **IV International Organic Fruit Symposium and II International Organic Vegetable Symposium.** Info: Assoc. Prof. Eligio Malusa, Instytut Ogrodnictwa-PIB, ul. Konsty, 96-100 Skierniewice, Poland. E-mail: eligio.malusa@inhort.pl or Joanna Pulawska, Instytut Ogrodnictwa - PIB, ul. Konstytucji 3 Maja 13, 96-100 Skierniewice, Poland. Phone: (48)468345366, E-mail: joanna.pulawska@inhort.pl or Prof. Dr. Lidia Sas Paszt, National Inst. of Horticultural Research, Dept. Microbiology & Rhizosphere, Pomologiczna 18, 96-100 Skierniewice, Poland. Phone: (48)468345235, Fax: (48)468333228, E-mail: lidia.sas@inhort.pl E-mail symposium: info@orghort2024.pl Web: https://orghort2024.pl/
- September 23-26, 2024, Athens (Greece): **I International Symposium on Protected Cultivation, Nettings and Screens for Mild Climates.** Info: Dr. Dimitrios Savvas, Agricultural University of Athens, Laboratory of Vegetable Production, Iera Odos 75, 11855 Athens, Greece. Phone: (30)2105294510, Fax: (30)2105294504, E-mail: dsavvas@aua.gr or Assoc. Prof. Thomas Bartzanas, Agricultural University of Athens, Laboratory of Farm Structures, Iera Odos 75, 11855, Athens, Greece. Phone: (30)2105294045, Fax: (30)2105294045, E-mail: t.bartzanas@aua.gr E-mail symposium: info.ishsathens2024@afea.gr Web: https://promicli.athens2024.org

- September 25-28, 2024, Wisley, Woking (United Kingdom): **III International Symposium on Greener Cities: Improving Ecosystem Services in a Climate-Changing World (GreenCities2024).** Info: Dr. Tijana Blanusa, Science Department, RHS Garden Wisley, GU23 6QB Woking, United Kingdom. E-mail: tijanablanusa@rhs.org.uk or Dr. Mark Gush, Royal Horticultural Society, Wisley, GU23 6QB Surrey Woking, United Kingdom. E-mail: markgush@rhs.org.ukE-mailsymposium:greencities2024@rhs.org.uk Web: https://www.rhs.org.uk/science/green-cities-2024
- October 1-4, 2024, Brasília, DF (Brazil): **VII International Symposium on Tomato Diseases.** Info: Prof. Eduardo Mizubuti, Departamento de Fitopatologia, Universidade Federal de Viçosa, 36570-900 Viçosa-MG, Brazil. Phone: (55) 31 3899 1090, E-mail: mizubuti@ufv.br or Dr. Alice Kazuko Inoue-Nagata, Embrapa Vegetables Km 09,BR060, 70275970 Brasilia-DF, Brazil. Phone: (55)6133859053, E-mail: alice.nagata@embrapa.br or Prof. Dr. Nadson Pontes, BR 153, km 633. CP 92, Zona Rural, 75650-000 Morrinhos-GO, Brazil. Phone: (55)64-34137900, E-mail: nadson.pontes@ifgoiano.edu.br E-mail symposium: 7istd@7istd.com Web: https://7istd.com/
- October 20-25, 2024, Yangling (China): **VIII International Symposium on Persimmon.** Info: Prof. Yong Yang, Northwest A&F University, Yangling, Shaanxi 712100, China. Phone: (86)29-87082613, E-mail: yang.yong521@163.com or Prof. Dr. Zhengrong Luo, National Key Lab for Germplasm Innovation &, Utilization of Horticultural Crops, Huazhong Agricultural University, Shizishan, Wuhan, Hubei 430070, China. Phone: (86)27-8728-2677, Fax: (86)27-8728-2010, E-mail: luozhr@mail.hzau.edu.cn or Dr. Qinglin Zhang, National Key Lab for Germplasm Innovation &, Utilization of Horticultural Crops, Huazhong Agricultural University, Wuhan, Hubei, 430070, China. Phone: (86)27-8728-2677, E-mail: zhangqinglin@mail.hzau.edu.cn E-mail symposium: persimmon@mail.hzau.edu.cn
- October 28-30, 2024, Coimbra (Portugal): **International Symposium on Arbutus unedo (Strawberry Tree) and Related Species: from Biology to Biotechnology.** Info: Prof. Dr. Jorge Canhoto, Department of Life Sciences, University of Coimbra, Calçada Martim de Freitas, 3000-456 Coimbra, Portugal. Phone: (351)917859860, E-mail: jorgecan@ci.uc.pt or Dr. João Martins, Department of Life Sciences, University of Coimbra, Calçada Martim de Freitas, 3000-456 Coimbra, Portugal. Phone: (351)239240700, E-mail: joao.martins@uc.pt Web: https://ucpages.uc.pt/en/plant-biotechnology-lab/arbutus-2024/

NEW
- November 4-7, 2024, Srinagar, J&K (India): **VII International Symposium on Saffron Biology and Technology.** Info: Prof. Haroon Rashid Naik, SKUAST Kashmir India, Srinagar, 190025, India. E-mail: directorresearch@skuastkashmir.ac.in or Prof. Dr. Dil Mohammad Makhdoomi, SKUAST Kashmir India, Shalimar, Srinagar, Jammu and Kashmir, 190025, India. E-mail: deeskuastk@gmail.com or Prof. Dr. Arshad H Mughal, SKUAST Kashmir India, Shalimar, Srinagar, Jammu and Kashmir, 190025, India. E-mail: ahmughal1@gmail.com or Assoc. Prof. Bashir Alie, SKUAST-Kashmir, India, Srinagar, 193401, India. Phone: (91)01951272477, E-mail: baelahi@gmail.com E-mail symposium: saffronsymposium2024@gmail.com

NEW
- November 10-15, 2024, Jeju (Korea (Republic of)): **XV International Citrus Congress.** Info: Prof. Dr. Kwan Jeong Song, Dept. of Horticultural Sceince, College of Applied & Life Sciences, Cheju National Unversity, 1 Ara 1-Dong, Jeju City, Jeju-Do 690-756, Korea (Republic of). Phone: (82)647543328, Fax: (82)647254905, E-mail: kwansong@jejunu.ac.kr E-mail symposium: info.icc2024@gmail.com Web: https://www.icc2024.kr/

NEW
- November 11-15, 2024, Rotorua (New Zealand): **VII International Symposium on Postharvest Pathology: Next Frontiers for Improved Knowledge and Management of Postharvest Disease.** Info: Dr. Kerry Everett, PB 92169, Mt Albert, 1142 Auckland, New Zealand. Phone: (64)9-9257133, E-mail: kerry.everett@plantandfood.co.nz Web: https://www.scienceevents.co.nz/postharvest2024
- November 11-15, 2024, Rotorua (New Zealand): **X International Symposium on Human Health Effects of Fruits and Vegetables - FAVHEALTH2024.** Info: Dr. Carolyn Lister, New Zealand Institute for Plant and Food Research Limited, Lincoln, New Zealand. Phone: (64)3-3259453, E-mail: carolyn.lister@plantandfood.co.nz Web: https://www.scienceevents.co.nz/postharvest2024
- November 11-15, 2024, Rotorua (New Zealand): **IX International Postharvest Symposium.** Info: Dr. Allan Woolf, Plant and Food Research, Mt Albert Research Centre, 120 Mt Albert Road, Sandringham, 1025, Auck, Private Bag 92169, Auckland, New Zealand. Phone: (64)99257267, Fax: (64)99258628, E-mail: allan.woolf@plantandfood.co.nz or Prof. Andrew East, Massey University, Private Bag 11222, Palmerston North, New Zealand. E-mail: a.r.east@massey.ac.nz Web: https://www.scienceevents.co.nz/postharvest2024

Year 2025

- January 19-24, 2025, Napier (New Zealand): **XIII International Symposium on Integrating Canopy, Rootstock and Environmental Physiology in Orchard Systems.** Info: Dr. Adam Friend, 55 Old Mill Road, RD 3, Motueka 7198, Tasman, New Zealand. Phone: (64)3-9073622, Fax: (64)3-9073596, E-mail: adam.friend@plantandfood.co.nz or Dr. Ben van Hooijdonk, Plant and Food Research, Hawkes Bay, Private Bag 1401, Havelock North, 4130, New Zealand. E-mail: ben.vanhooijdonk@plantandfood.co.nz Web: https://www.scienceevents.co.nz/orchard-systems
- February 10-13, 2025, Sde Boker (Israel): **II International Symposium on Reproductive Biology of Fruit Tree Species**. Info: Prof. Avi Sadka, ARO, The Volcani Center, Department of Fruit Trees Sciences, 68 HaMaccabim Rd., P.O. Box 15159, Rishon LeZion 7528809, Israel. Phone: (972)3-9683343, Fax: (972)3-9669583, E-mail: vhasadka@volcani.agri.gov.il or Prof. Noemi Tel-Zur, Ben-Gurion University of the Negev, Beersheba, Israel. E-mail: telzur@bgu.ac.il Web: https://www.reproductive-biologyfruittree.org.il/
- March 16-21, 2025, Yancheng city, Jiangsu Province (China): **X International Strawberry Symposium.** Info: Dr. Jian Sun, Institute of Forestry and Pomology, Beijing Academy of Agriculture and Forestry, NO.12, Ruiwangfen Jia, Xiangshan, Haidian, Beijing, 100093, China. Phone: (86)10-82598882, E-mail: sjroad@126.com or Dr. Yuntao Zhang, BJ Academy Forestry & Pomology Sciences, Rui Wang Fen, Xiang-Shan, Hai Dian District, Beijing 100093, China. Phone: (86)1082598882, Fax: (86)1062598882, E-mail: zhytao1963@126.com Web: https://www.iss2025.org.cn

NEW
- March 30 - April 4, 2025, Fallbrook, CA (United States of America): **XV International Protea Research Symposium.** Info: Kenneth W. Leonhardt, Dept of Horticulture, University of Hawaii, 3190 Maile Way, Rm 102, Honolulu, HI 96822-2232, United States of America. Phone: (1)8089568909, Fax: (1)8089563894, E-mail: leonhard@hawaii.edu

NEW
- May 5-9, 2025, Rimini (Italy): **International Symposium on Biotechnological Tools in Horticulture.** Info: Dr. Silvia Sabbadini, Via Brecce Bianche 10, Ancona, Italy. E-mail: s.sabbadini@staff.univpm.it or Dr. Luca Capriotti, Dept Agric., Food & Environmental Sciences, Università Politecnica delle Marche, Via Brecce Bianche 10, Ancona, Italy. Phone: (39)3662844234, E-mail: l.capriotti@staff.univpm.it or Dr. Angela Ricci, Dept Agric., Food & Environmental Sciences,

Università Politecnica delle Marche, Via Brecce Bianche 10, Ancona, Italy. E-mail: angela.ricci@pm.univpm.it E-mail symposium: info@symposiumbiotechinhort.com Web: https://symposiumbiotechinhort.com/

NEW ■ May 6-9, 2025, Costa de Adeje, Tenerife (Spain - Canary Islands): **XI International Congress on Cacti as Food, Fodder and Other Uses.** Info: Prof. Dr. M. Pilar Cano, Nicolás Cabrera, 9, 28049 Madrid Madrid, Spain. Phone: (32)910017937, Fax: (34)910017905, E-mail: mpilar.cano@csic.es or Dr. M. Gloria Lobo, Carretera del Boquerón s/n, 38270 Valle de Guerra, Spain - Canary Islands. Phone: (34) 922923316, E-mail: globo@icia.es

NEW ■ May 10-15, 2025, Beijing (China): **IX International Symposium on Rose Research and Cultivation.** Info: Prof. Junping Gao, China Agricultural University, Beijing, 100193, China. E-mail: gaojp@cau.edu.cn Web: http://www.rose2025.cn/

■ May 18-22, 2025, Wenatchee, WA (United States of America): **XIV International Controlled and Modified Atmosphere Research Conference - CAMA2025.** Info: Dr. Carolina A. Torres, Washington State Univ, 1100 N. Western Ave, Wenatchee, WA 98801, United States of America. Phone: (1)206 331 4780, Fax: (1)509 848 2231, E-mail: ctorres@wsu.edu E-mail symposium: info@cama2025.com Web: https://cama2025.com

NEW ■ May 28-31, 2025, Mazatlán, Sinaloa (Mexico): **XIV International Mango Symposium**. Info: Prof. Dr. Sergio Marquez-Berber, 4ta Cda Huautla 3A, San Luis Huexotla, 4ta Cda Huautla 3A, San Luis Huexotla, Texcoco, Mexico, 56220, Mexico. Phone: (52)15951070500, Fax: 5959521642, E-mail: sermarber@gmail.com

NEW ■ June 1-5, 2025, Richland, WA (United States of America): **X International Cherry Symposium.** Info: Dr. Matthew Whiting, Washington State University, IAREC, 24106 N. Bunn Road, Prosser, WA 99350, United States of America. E-mail: mdwhiting@wsu.edu

NEW ■ June 2-6, 2025, Thessaloniki (Greece): **IX International Symposium on Seed, Transplant and Stand Establishment of Horticultural Crops and III International Symposium on Vegetable Grafting.** Info: Athanasios Koukounaras, Aristotle University of Thessaloniki, Alamanas 33, 55 132 Kalamaria, Thessaloniki, Greece. E-mail: thankou@agro.auth.gr

NEW ■ June 22-27, 2025, Almeria (Spain): **GreenSys2025 - International Symposium on Advanced Technologies and Management for Sustainable Greenhouse Systems.** Info: Prof. Dr. Diego L. Valera, Dpto. Ingeniería, Universidad de Almería, Ctra Sacramento sn, 04120 Almería, Spain. Phone: (34)950015546, E-mail: dvalera@ual.es or Prof. Dr. Francisco Domingo Molina Aiz, Universidad de Almería, CITE II-A, Despacho 1.07, Carretera Sacramento s/n, 04120 Almería, Spain. Phone: (34)950015449, Fax: (34)950015491, E-mail: fmolina@ual.es E-mail symposium: greensys2025@ual.es Web: http://www2.ual.es/greensys2025/

■ July 10-11, 2025, Kuala Lumpur (Malaysia): **III International Symposium on Tropical and Subtropical Ornamentals.** Info: Prof. Dr. Asmah Binti Awal, Faculty of Plantation and Agrotechnology, UiTM Cawangan Melaka, Kampus Jasin, 77300 Melaka Merlimau, Malaysia. E-mail: asmah138@uitm.edu.my

■ August 4-8, 2025, Beijing (China): **XI International Congress on Hazelnut.** Info: Prof. Jianguo Zhang, Research Institute of Forestry, Chinese Academy of Forestry, Dongxiaofu 1, Haidian District, Beijing, China. E-mail: chinahazelnut2025@163.com E-mail symposium: chinahazelnut2025@163.com

NEW ■ August 25-31, 2025, Naples and Alba (Italy): **International Symposium on Temperate Tree Nuts: from Sustainable to Organic Production.** Info: Prof. Dr. Chiara Cirillo, Dept. Agricultural Sciences, University of Napoli Federico II, Via Università 100, 80055 Portici NA, Italy. Phone: (39)081-2539381, Fax: (39)081-7755114, E-mail: chiciril@unina.it or Prof. Roberto Botta, DISAFA - University of Torino, Largo Paolo Braccini 2, 10095 Grugliasco (TO), Italy. Phone: (39)0116708800, Fax: (39)0116708658, E-mail: roberto.botta@unito.it or Prof. Dr. Tiziano Caruso, Department of Agricultural & Forest Science, University of Palermo, Viale delle Scienze, Edificio 4 ingresso H, 90128 Palermo, Italy. Phone: (39) 09123861207, E-mail: tiziano.caruso@unipa.it

NEW ■ September 7-12, 2025, Freising (Germany): **II International Symposium on Growing Media, Compost Utilization and Substrate Analysis for Soilless Cultivation.** Info: Dr. Dieter Lohr, Weihenstephan-Triesdorf University, Institute of Horticulture, Am Staudengarten 14, 85354 Freising, Germany. E-mail: dieter.lohr@hswt.de or Dr. Elke Meinken, Am Staudengarten 14, 85354 Freising, Germany. E-mail: elke.meinken@hswt.de or Prof. Dr. Nazim Gruda, University of Bonn, INRES Horticultural Sciences, Auf dem Hügel 6, 53121 Bonn, Germany. E-mail: ngruda@uni-bonn.de Web: https://www.growingmedia2025.com/

■ September 16-19, 2025, Bogor (Indonesia): **IX International Symposium on Edible Alliums.** Info: Dr. Awang Maharijaya, Pakuan Regency, cluster Lingga Buana, Blok E6 no 24, 16680 West Java Bogor, Indonesia. E-mail: awangmaharijaya@apps.ipb.ac.id

■ September 22-24, 2025, Bari (Italy): **VI International Symposium on Pomegranate and Minor Mediterranean Fruits.** Info: Assoc. Prof. Giuseppe Ferrara, Università di Bari, Dpt. Scienze Suolo, Pianta e Alimenti, Via Amendola 165/a, 70126 Bari, Italy. Phone: (39)805442979, Fax: (39)805442979, E-mail: giuseppe.ferrara@uniba.it or Prof. Dr. Stefano La Malfa, Di3A, Catania University, Via Valdisavoia 5, 95123 Catania, Italy. Phone: (39)095-354641, Fax: (39)095-234406, E-mail: stefano.lamalfa@unict.it

NEW ■ September 23-25, 2025, Yunnan (China): **II International Symposium on Botanical Gardens and Landscapes.** Info: Prof. Yongping Yang, Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, Menglun, Mengla, Yunnan, 666303, China. Phone: (86)6918716681, Fax: (86)6918715070, E-mail: yangyp@xtbg.ac.cn

■ October 20-23, 2025, Kalamata (Greece): **X International Symposium on New Ornamental Crops.** Info: Assoc. Prof. Anastasios Darras, University of the Peloponnese, Antikalamos, Kalamata, 24100 None Kalamata, Greece. Phone: +306974396588, E-mail: a.darras@uop.gr

NEW ■ November 5-7, 2025, Bogota (Colombia): **VI International Conference on Postharvest and Quality Management of Horticultural Products of Interest for Tropical Regions.** Info: Dr. Maria Soledad Hernandez, Amazonic Research Institute- Sinchi, Calle 20. No 5-44, Bogota, D.C, Colombia. Phone: (57)1 4442060, Fax: (57)12862418, E-mail: shernandez@sinchi.org.co or Ms. Luz Mantilla, Calle 20 No 5-44, Bogota 111211, Colombia. Phone: 576012442060, E-mail: luzmarmantilla@sinchi.org.co

■ November 11-13, 2025, Shizuoka (Japan): **VI Asia Symposium on Quality Management in Postharvest Systems.** Info: Prof. Dr. Masaya Kato, Faculty of Agriculture, Shizuoka University, Ohya, Suruga, Shizuoka 422-8529, Japan. Phone: (81)54-238-4830, Fax: (81)54-237-3028, E-mail: kato.masaya@shizuoka.ac.jp E-mail symposium: asqp2025@gmail.com Web: https://asqp2025.org/

Year 2026

NEW ■ January 18-23, 2026, Tatura, Victoria (Australia): **XI International Symposium on Irrigation of Horticultural Crops.** Info: Dr. Alessio Scalisi, Tatura SmartFarm, Agriculture Victoria Research, Dept Energy, Environment and Climate Action, 255 Ferguson Rd, Tatura, Victoria 3616, Australia. E-mail: alessio.scalisi@agriculture.vic.gov.au or Dr. Ian Goodwin, Tatura SmartFarm, Agriculture Victoria Research, Dept Energy, Environment and Climate Action, 255 Ferguson Rd, Tatura, Victoria

3616, Australia. Phone: (61)354831101, Fax: (61)358335299, E-mail: ian.goodwin@agriculture.vic.gov.au or Prof. Pablo J. Zarco-Tejada, SAFES, Faculty of Science, and, Department of Infrastructure Engineering, Faculty Engineering & Information Technol., Univ. Melbourne, Parkville, Victoria 3052, Australia. E-mail: pablo.zarco@unimelb.edu.au

- March 16-20, 2026, Skukuza (South Africa): **IV International Symposium on Beverage Crops.** Info: Prof. Dr. Olaniyi Fawole, Postharvest and Agroprocessing Research Lab, Department of Botany & Plant Biotechnology, University of Johannesburg, APK Campus, South Africa. E-mail: olaniyif@uj.ac.za
- May 4-8, 2026, Lleida (Spain): **IX International Symposium on Almonds and Pistachios.** Info: Dr. Xavier Miarnau, IRTA-Fruitcentre, Parc Agrobiotech, Parc de Gardeny, 25003 Lleida, Spain. Phone: (34)675788825, E-mail: xavier.miarnau@irta.cat or Dr. Joaquim Bellvert Rios, Parc de Gardeny, IRTA Fruitcentre, 25003 Lleida Lleida, Spain. Phone: +34669012747, E-mail: joaquim.bellvert@irta.es
- May 17-22, 2026, Athens (Greece): **X Southeastern and Eastern Europe Symposium on Vegetables and Potatoes.** Info: Dr. Dimitrios Savvas, Agricultural University of Athens, Laboratory of Vegetable Production, Iera Odos 75, 11855 Athens, Greece. Phone: (30)2105294510, Fax: (30)2105294504, E-mail: dsavvas@aua.gr or Assist. Prof. Georgia Ntatsi, Agricultural University of Athens, Laboratory of Vegetable Crops, Iera Odos 75, 11855 Athens, Greece. Phone: (30)2015294532, E-mail: ntatsi@aua.gr or Prof. Dr. Nazim Gruda, University of Bonn, INRES Horticultural Sciences, Auf dem Hügel 6, 53121 Bonn, Germany. E-mail: ngruda@uni-bonn.de
- June 22-24, 2026, Jejudo (Korea (Republic of)): **XVI International Asparagus Symposium.** Info: Prof. Dr. Yang Gyu Ku, Department of Horticulture Industry, College of Agriculture and Food Sciences, Wonkwang University, Iksan-city, Korea (Republic of). Phone: (82)638506672, Fax: (82)638507308, E-mail: ygku35@wku.ac.kr or Prof. Dr. Young Yeol Cho, Collage of Applied Life Sciences, Department of Horticultural Science, Jeju National University, Jeju, Korea (Republic of). Phone: (82)647543325, Fax: (82)647254905, E-mail: yycho@jejunu.ac.kr or Prof. Dr. Jong Hyang Bae, Department of Horticulture Industry, College of Agriculture and Food Sciences, Wonkwang University, Iksan-city, Korea (Republic of). Phone: (82)638506671, Fax: (82)638507308, E-mail: bae@wku.ac.kr or Prof. Dr. Young Rog Yeoung, Department of Plant Science, College of Life Science, GangneungWoju National University, Gangwon-Do, Korea (Republic of). Phone: (82)336402356, Fax: (82)336402909, E-mail: yryeoung@gwnu.ac.kr
- August 23-28, 2026, Kyoto (Japan): **XXXII International Horticultural Congress: IHC2026.** Info: Prof. Dr. Ryutaro Tao, Lab. Pomology, Fac. Agric., Kyoto University, Kitashirakawa Oiwake-cho, Sakyo-ku Kyoto 606-8502, Japan. Phone: (81)757536053, Fax: (81)757536497, E-mail: tao.ryutaro.8c@kyoto-u.ac.jp E-mail symposium: ihc2026@convention.co.jp Web: https://www.ihc2026.org/
- November 18-20, 2026, Bastia, Corsica (France): **V International Symposium on Citrus Biotechnology.** Info: Dr. Francois Luro, AGAP Corse Equipe SEAPAG, station INRAE, 20230 San Giuliano, France. Phone: (33)495595946, E-mail: francois.luro@inrae.fr

Year 2027

NEW

- June 6-10, 2027, Wageningen (Netherlands): **GreenSys2027.** Info: Dr. Silke Hemming, Wageningen University & Research, Business Unit Greenhouse Horticulture, Droevendaalsesteeg 1, 6708 PB Wageningen, Netherlands. Phone: (31)317 4 86921, E-mail: silke.hemming@wur.nl or Prof. Dr. Leo F. M. Marcelis, Wageningen University, Horticulture & Product Physiology, Droevendaalsesteeg 1, 6708 PB Wageningen, Netherlands. Phone: (31)317485675, E-mail: leo.marcelis@wur.nl or Dr. Ep Heuvelink, Greenhouse Crop Physiology and Modelling, Wageningen University, Droevendaalsesteeg 1, 6708 PB Wageningen, Netherlands. Phone: (31)317483679, Fax: (31)317484709, E-mail: ep.heuvelink@wur.nl

NEW

- June 7-10, 2027, Coimbra (Portugal): **XXVIII International EUCARPIA Symposium Section Ornamentals - From Biology to Bioeconomy.** Info: Prof. Dr. Jorge Canhoto, Department of Life Sciences, University of Coimbra, Calçada Martim de Freitas, 3000-456 Coimbra, Portugal. Phone: (351)917859860, E-mail: jorgecan@ci.uc.pt
- July 11-16, 2027, Pergine Valsugana (Italy): **XIV International Rubus and Ribes Symposium.** Info: Gianluca Savini, Sant'Orsola Sca., Via Per Trento n. 11/E loc. Cirè, 38057 Pergine Valsugana TN, Italy. E-mail: gianluca.savini@santorsola.com or Lara Giongo, Fondazione Edmund Mach via E. Mach,1, San Michele aA, Italy. E-mail: lara.giongo@fmach.it
- September 6-9, 2027, Matera (Italy): **XII International Symposium on Kiwifruit.** Info: Prof. Dr. Bartolomeo Dichio, Università degli Studi della Basilicata, DICEM, Via S.Rocco, 75100 Matera, Italy. Phone: (39)08351971422, E-mail: bartolomeo.dichio@unibas.it or Prof. Cristos Xiloyannis, vico san leonardo,35, DICEM, Via S.Rocco, 75100 Matera, Italy. Phone: (39)0835314347, E-mail: cristosxiloyannis15@gmail.com or Dr. Alba Mininni, Università degli studi della Basilicata, DICEM, via passarelli 113, 75100 Matera (MT), Italy. E-mail: alba.mininni@unibas.it

NEW

- September 27-30, 2027, Athens (Greece): **III International Symposium on Growing Media, Compost Utilization and Substrate Analysis for Soilless Cultivation.** Info: Dr. Dimitrios Savvas, Agricultural University of Athens, Laboratory of Vegetable Production, Iera Odos 75, 11855 Athens, Greece. Phone: (30)2105294510, Fax: (30)2105294504, E-mail: dsavvas@aua.gr or Assist. Prof. Georgia Ntatsi, Agricultural University of Athens, Laboratory of Vegetable Crops, Iera Odos 75, 11855 Athens, Greece. Phone: (30)2015294532, E-mail: ntatsi@aua.gr

Year 2029

NEW

- September 9-14, 2029, Kaunas (Lithuania): **XI Southeastern and Eastern Europe Symposium on Vegetables and Potatoes.** Info: Giedre Samuoliene, Institute of Horticulture, Lituanian Res. Ctr. for Agric. and Forestry, Kaunas str. 30, LT-54333 Babtai, Lithuania. E-mail: giedre.samuoliene@lammc.lt or Prof. Dr. Nazim Gruda, University of Bonn, INRES Horticultural Sciences, Auf dem Hügel 6, 53121 Bonn, Germany. E-mail: ngruda@uni-bonn.de or Dr. Akvile Virsile, 30 Kaunas str., LT-54333 Kaunas distr. Babtai, Lithuania. Phone: (370)37555476, E-mail: akvile.virsile@lammc.lt

Year 2030

- August 25-30, 2030, Milan (Italy): **XXXIII International Horticultural Congress: IHC2030.** Info: Prof. Dr. Massimo Tagliavini, Faculty of Sciences and Technology, Free University of Bolzano/Bozen, Via Sernesi 1, 39100 Bolzano/Bozen, Italy. Phone: (39)0471 017120, Fax: (39)0471 017009, E-mail: massimo.tagliavini@unibz.it Web: https://www.ihc2030.org/

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