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Why the Horticultural World Needs the International Society for Horticultural Science (ISHS) and Acta Horticulturae: A 150-Year Celebration!

Jaime A. Teixeira da Silva*
P. O. Box 7, Ikenobe 3011-2, Miki-cho, Kita-gun, Kagawa, 761-0799, Japan
*Corresponding author: Jaime A. Teixeira da Silva, E-mail: jaimetex@yahoo.com
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ABSTRACT

There are many challenges in science publishing, many of these in plant science. The International Society for Horticultural Science (ISHS) has over 7500 members with at least 50 member states. The ISHS claims "...to promote and encourage research and education in all branches of horticultural science and to facilitate cooperation and knowledge transfer on a global scale through its symposia and congresses, publications and scientific structure." Indeed, the ISHS is based in an economically sound part of the world Belgium (Leuven), which is also home to the *de facto* capital of the European Union, in Brussels. With an extremely high profile Executive Board, the ISHS lends its success to its leading publication, Acta Horticulturae®, which is based on approximately 40 annual specialized meetings a year in all fields of horticultural science. Acta Horticulturae (ISSN 0567-7572) is in fact a peer reviewed journal, or a hybrid conference and symposium series, that has assigned both an ISSN and an ISBN to each volume, and to date (June, 2014), the ISHS has published 1040 volumes, with over 56,000 papers having been published, with 5 new volumes in preparation and another 92 symposia scheduled for 2014-2017. Prof. Yves Desjardins, the ISHS Board Member Responsible for Publications, has also pledged the allegiance of the ISHS to the Declaration of Research Assessment (DORA), and has stood firmly against Thomson Reuter's impact factor. These new measures have guaranteed the quality of publications published in Acta Horticulturae, which the ISHS adamantly claims is a peer reviewed journal that meets international publishing and ethical standards. The first International Horticultural Congress was organized in 1864 in Brussels, which makes 2014 a historical year for the ISHS, i.e., a 150 year celebration. This small review summarizes, in a celebratory note, the ISHS and its key publication, Acta Horticulturae, as bastions of quality and excellence for horticultural scientists, and thus a role model for publishing in the plant sciences.

Keyword: DORA, peer review, quality control, Scopus

INTRODUCTION AND HISTORICAL CELEBRATION

The International Society for Horticultural Science (ISHS) is the most important and high profile horticultural (and possibly even plant science) organization in the world. In 2014, the ISHS celebrates its 150th anniversary since its first International Horticultural Congress (IHC), which was organized in 1864 in Brussels, Belgium. This review aims to provide the key values and positive academic attributes of the ISHS, as indicated officially on its web-site, and all the information contained herein is exclusively based on the information at the ISHS web-page http://www.ishs.org [1], save interspersed interpretations provided by the author, where necessary.

The ISHS claims that [2] "During the 19th century, horticultural scientists realised that an exchange of their views and experience should be promoted internationally in order to globalise their national or even regional efforts." Based on this premise, the ISHS was born and held its first meeting in 1864. This was an extremely important step since global travel was still reliant on ships from the mid-19th to early 20th centuries, as the first commercial airplane only came into being in 2010 according to the Smithsonian National Air and Space Museum (SSNASM) [3], so the vision by the early horticulturists was bold, and futuristic. So much so that, according to [2], "In 1923 the foundation of an International Commission for Horticultural Congresses was established. The International Society for Horticultural Science was officially registered as such on April 27, 1959." The multicultural nature of the ISHS and its commissions was "a guarantee for the high level of the international workshops, symposia and congresses that are organised each year in co-operation with ISHS." More detailed information can be obtained from Annex 1, taking note of the fact that the 2014 and 2018 IHCs are to be held in Brisbane (Australia) and Istanbul (Turkey), respectively.

Thus, historically, a world-wide effort was made by the ISHS to organize meetings that would allow horticultural scientists from every culture and corner of the globe to assemble in one location and to exchange ideas, among peers and specialists, and to then publish those unique and important ideas as part of Acta Horticulturae [4].

Functionality and structure of the ISHS

"The aim of the ISHS is "...to promote and encourage research and education in all branches of horticultural science and to facilitate cooperation and knowledge transfer on a global scale through its symposia and congresses, publications and scientific structure." Membership is open to all interested researchers, educators, students and horticultural industry professionals." [5]. The ISHS claims to have over 7500 members, with over 50 Member States/Countries, and "is a major source of up-to-date information on global horticultural research." The ISHS [5] also

states "ISHS aims to promote research in all branches of horticulture. It encourages the development of international co-operation, bringing together scientific and technical professionals to stimulate, facilitate and co-ordinate research and scientific activities on a global scale." The quotidian or day-to-day functions of the ISHS are taken care of by the ISHS Secretariat [6] based in Leuven, Belgium. Most importantly, the ISHS's policies, including those related to publishing, are guided by the extremely important Board of Directors [7] (see Annex 2), also referred to as the ISHS Board members from 2010-2014 [8] (see Annex 2). "The ISHS Council, which meets every two years, is made up of delegates representing the interests of countries or regions, which have contributed a membership fee. Directors are elected by Council at the International Horticultural Congress which is held every fourth year." [9] (see Annex 3). New Council members and Directors are elected every four years, which makes the 2014 meeting in Brisbane at IHC2014 extremely important, and historical, since it coincides with the 150th anniversary of the ISHS's first meeting. "In addition to the Council and various sub-Committees, an Executive Committee manages the scientific program. It is composed of the Chairs of the Sections and Commissions [10] (see Annex 4). It is via these bodies that ISHS communicates with members who have specific research interests covering the full range of horticultural science. Sections cover the horticultural crops grown around the world. Commissions relate to different scientific and technical disciplines within horticulture." More specifically, there are 10 crop-related sections, 14 discipline-related commissions and in excess of 130 active working groups. Information related to the practical functioning of the ISHS is usually published in a secondary publication, Chronica Horticulturae [11].

These committees and working groups converge their strength annually in meetings or congresses held globally that unite specialists, many of whom form the peer reviewer pool for horticultural and plant science journals around the world, in other publishers' journals, and thus represent a considerably important peer pool of intellectual quality control (QC). The ISHS describes these congresses as follows [5]: "A major benefit of ISHS membership is the privilege of attending the International Horticultural Congress every four years at discounted rates [12]. Congresses are attended by 2,000 or more delegates. They are carefully planned over many years to address all areas of horticultural science of interest to members. The Congress provides opportunities for individuals to present posters or make oral presentations of their current research work. Thus, information is shared with a wide audience. Beside the major sessions, many workshops, symposia and other meetings are held during the Congress. Business meetings of the Society and its Sections and Commissions also take place. There are numerous social gatherings, sight-seeing opportunities, and the chance to see local horticultural industries during specialized field trips." Incidentally, annual membership of the ISHS is 60 or 75 Euros, for non-EU or EU members respectively [13], with a considerable number of tangible and practically useful benefits, including financial ones: "Potential discount on registration at each ISHS Symposium valued at EUR 60 per Symposium" and "15 free downloads of Acta Horticulturae per year valued at EUR 225".

In the world of plant science, and more specifically horticultural science, it is extremely rare to find an organization of the magnitude and formidable structure and prowess (academic and financial) as the ISHS. Such a body, with the most distinguished horticultural scientists from around the world, would thus guarantee the excellence, quality and scientific integrity of its cornerstone publication, Acta Horticulturae, discussed next.

Acta Horticulturae: stalwart publication of the ISHS

The ISHS describes Acta Horticulturae most clearly [5]: "The success of the ISHS, in relation to its effective communication and leadership of international co-operation, is largely through the 40 or more specialized symposia held annually. These are organised locally in a country, each with a convener, an organising committee, a scientific committee and an editorial board. Designed to be self-financing, these symposia normally concentrate on a technical subject – a crop or research area. Invited speakers present papers, research findings are debated, discussions held, visits arranged and the editor compiles a monograph published as a volume of Acta Horticulturae. These publications are available, at cost, to all ISHS members attending symposia and are archived in many academic/research libraries. English is the official language of ISHS used at meetings and in communications. Since 2001 the entire Acta Horticulturae library is available online and services the needs of thousands of researchers worldwide who use the www.actahort.org site to stay in touch with advances in horticultural science. Individual copies of Acta Horticulturae can also be purchased from the ISHS Secretariat."

This indicates that 2001 was a historical year in which the ISHS decided to make all Acta Horticulturae content available, even if at a cost. This content, according to the ISHS web-site, includes 1040 volumes of Acta Horticulturae, with several volumes in preparation (June, 2014), exceeding 56,000 scientific, peer reviewed, academically sound papers.

Acta Horticulturae: quality control, peer review, scientific robustness

As indicated above [5], the ISHS states that Acta Horticulturae is the publishing culmination of an international symposium, "each with a convener, an organising committee, a scientific committee and an editorial board." As for a scientific, peer-reviewed journal, this structure thus guarantees the academic quality and integrity of the content since extremely high profile specialists have overseen the quality-related parameters, thus providing QC, scientific soundness and editorial rigidity to all Acta Horticulturae papers. In fact, the academic integrity, peer-reviewed status and scientific quality is adamantly guaranteed by the ISHS [14] (see Annex 5): "Acta Horticulturae is a sound scientifically reviewed proceedings series."

In addition, the ISHS has taken clear assertive steps to certify this scientific quality and to make all content subject to the highest level of international publishing standards and criteria, including, therefore, publishing ethics. Emphatic statements to this end are provided [15], as confirmed by Prof. Yves Desjardins: "The recent decisions by the ISHS Board to provide a digital object identifier (DOI) to each published Acta Horticulturae® article, to invest in the infrastructure to fully cross-reference articles and bibliographies and to provide the capacity for on-line publication of articles are opening new opportunities to comply with the San Francisco's DORA declaration. Opening the door to the WEB 2.0 into PubHort will allow the generation of new altmetrics, including conventional ones like the number of times an article is viewed, downloaded and cited, but also new ones such as the use of social media (Twitter, Facebook and LinkedIn), online reference managers (CiteULike, Zotero and Mendeley),

collaborative encyclopedias (Wikipedia), Blogs (both scholarly and general-audience), and scholarly social networks (ResearchGate or Academia.edu). At this stage, we are ready to provide the number of Twitter tweets generated by an Acta Hortculturae® article (the so-called Twimpact Factor), a reflection of the "buzz" generated by an article in the scientific community and the media, a metric that is gaining popularity as a prediction of the impact of a paper in the community at large." Interestingly, the ISHS stands firmly against the impact factor, Thomson Reuter's referencing metric, with the ISHS claiming that "During its last meeting in Matera, Italy, the ISHS Board enthusiastically signed the DORA, a declaration that conforms to what the Society has been claiming for years: the IF does not properly assess the scientific significance of papers published in the field of horticulture science, e.g., the low IF of most horticultural journals (< 1.5). This is particularly important for the recognition of Acta Horticulturae®, which is not considered by ISI-Thomson Reuters' Web-of-Knowledge® as a scientific journal, even if it is fully refereed in the ISI conference database. Acta is referenced by Scopus and thus used in the calculation of the H-Index (the set of a scientist's most cited papers divided by the number of citations that they have received in other publications) and altmetrics.", "As the ISHS Board member responsible for publications, and on behalf of the Board, I stand and promote the publication of quality research. Articles in Acta Horticulturae® and other horticultural publications will be better recognized through the use of the H-index and altmetrics than with IF. We support the DORA and so should you." and "ISHS does not want to play the IF game anymore." Oddly, the ISHS is not, unlike what is claimed [15], a signatory [16].

Thus, Acta Horticulturae is a model journal system for the international plant science and horticultural communities because it recognizes the importance of QC, it implements QC through peer review, separate editor boards made up of specialists professionals for each meeting and for each volume of Acta Horticulturae, since it is referenced by Elsevier's Scopus, and since the highest levels of the international horticultural community, embodied by Prof. Yves Desjardins and the ISHS Executive Board [8], have fully approved and confirmed the peer reviewed quality of Acta Horticulturae papers. Moreover, the importance of originality and the embracing of high publishing ethical standards are important [17]: "Submission of a manuscript implies: that the work described has not been published before (except in form of an abstract or as part of a published lecture, review or thesis); that it is not under consideration for publication elsewhere; that its publication has been approved by all co-authors, if any, as well as - tacitly or explicitly - by the responsible authorities at the institution where the work was carried out." and "Important elements of the publisher's role in the scientific communication process are reviewing, recognition and consistent quality assurance."

One can thus conclude that the ISHS represents the model ethical, scientifically-based publishing model, while Acta Horticulturae, with its 55,000 peer-reviewed papers of sound scientific quality, represent a sound ethical, peer-based publishing journal *cum* book *cum* symposium proceedings model. The future bodes well for the ISHS with an estimated 90 symposia being planned for the 2014-2017 period [18] (see Annex 7). In addition, a collaborative effort with other horticulture-related publications to ensure the access to over 62,000 publications, in an ISHS-owned collaboration PubHort [19], is aimed at the long-term longevity of the ISHS, Acta Horticulturae, and its business partners.

CONCLUSIONS

The ISHS is without a doubt the oldest, most prestigious, most powerful, most respectable and most international body of scientists that exists in plant science, even though it represents more specifically the horticultural sciences. A rich history, a scientific base that encompasses the top horticultural and plant science researchers from around the world, a massive membership base that exceeds 7500 members from over 50 countries, and a peer-reviewed, quality control-ensured Acta Horticulturae that has already published in excess of 55,000 papers make the celebration of the ISHS and Acta Horticulturae, all the more pertinent, especially in the face of challenges in science publishing, including retroactive scrutiny by post-publication peer review [20].

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The author wishes to thank the ISHS for useful information about its history, structure and publications that have allowed this celebration to be made. All text has been correctly quoted and appropriate links to exact web-sites provided in recognition of the source, and to respect copyright, all within the legal limitations of use as defined by the legal page at ISHS "You may Use materials displayed on the Site for non-commercial, personal Use for the purposes of research, teaching or private study only provided you keep intact all copyright notices and other proprietary notices." [21] (see Annex 9).

Conflicts of interest and disclaimer

The author declares no financial or other conflicts of interest. This article has a purely academic basis, in celebration of the ISHS. The author has no official link to any publisher, any editor board, no research institute, and thus no academic conflicts of interest.

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Annex 1 (information from [1])
Based on http://www.ishs.org/historical-facts, *verbatim*, and modified only for punctuation or capitalization, or better structure.
"Presidents of the ISHS

- Startup: Roger de Vilmorin (France)
- 1961 - 1962: Prof. Dr. A. Lecrenier (Belgium)
- 1962 – 1966: Prof. Dr. H.B. Tukey sr (USA)
- 1966 – 1970: Prof. Dr. P. Spiegel-Roy (Israel)
- 1970 – 1974: Prof. Dr. S.A. Pieniazek (Poland)
- 1974 – 1978: Dr. W.F. Walker (Australia)
- 1978 – 1982: Prof. Dr. D. Fritz (Germany F.R.)
- 1982 – 1986: Prof. Dr. H.B. Tukey jr (USA)
- 1986 – 1990: Prof. Dr. F. Scaramuzzi (Italy)
- 1990 – 1994: Prof. Dr. R. Sakiyama (Japan)
- 1994 – 1998: Prof. Dr. S. Sansavini (Italy)
- 1998 – 2002: Dr. C.D. Brickell (UK)
- 2002 - 2006: Dr. N.E. Looney (Canada)
- 2006 - 2010: Dr. N.E. Looney (Canada)
- 2010 - : Prof. Dr. A. Monteiro (Portugal)

Secretary general / executive director

- 1959 - 1982: Dr. G. de Bakker
- 1982 – 1994: Ir. H.H. van der Borg
- Function of Secretary General abolished in 1994 and replaced by Executive Director
- 1994 – 1995: Dr. O. Verdonck (acting Executive Director)
- 1995 - : Ir. J. Van Assche

The ISHS nominations and awards committee
The ISHS Nominations and Awards Committee invites the members of the Society, to bring possible candidates for an ISHS Honorary Membership and ISHS Fellowship to the attention of the Society. Nominations should be accompanied by five (5) letters of support, giving reasons why a nominee is considered worthy of an honour; these letters must come from members in no less than three (3) different countries. Nominations must be received by the Executive Director of ISHS at least three months prior to a Council meeting. The Executive Director will collect the suggestions and will send these, together with the letters of support, to the Nominations and Awards Committee. The Nominations and Awards Committee (which consists of around 6 persons on a 4 year rotation system) will discuss and select the suggestions that were received and send them with a motivated recommendation to the ISHS Board at least six weeks before a Council meeting. The Board will discuss the recommendations made by the Nominations and Awards Committee and send the final, motivated nominations to the Council, which will decide who will receive the Awards - following the procedure set in article 3d and 3e of the Rules of Procedure of the ISHS. The presentation ceremony takes place at the International Horticultural Congress during the General Assembly of the ISHS.
Fellow members
The ISHS Fellow Award will be presented to a person who is a member of ISHS, in recognition of this person's outstanding contribution to horticultural science worldwide. A precious metal pin and a certificate will be given to the recipients of this award. The total number of active ISHS Fellows shall not exceed 1% of the total membership, averaged over a period of 4 previous years.

- Dr. Sylvia Blankenship (USA) 2010
- Dr. C.D. Brickell (United Kingdom) 2002
- Dr. Daniel C. Cantliffe (USA) 2006
- Prof. Krishan Lal Chadha (India) 2014
- Dr. Sylvia Dorn (Switzerland) 2010
- Dr. Allan Ross Ferguson (New Zealand) 2014
- Dr. Abraham A. Halevy (Israel) 2006 (*)
- Prof. Dr. Errol W. Hewett (New Zealand) 2014
- Dr. Shuichi Iwahori (Japan) 2014
- Dr. Jules Janick (USA) 2006
- Prof. Dr. Adel A. Kader (USA) 2014 (*)
- Dr. Schuyler Korban (USA) 2010
- Dr. Norman E. Looney (Canada) 2006
- Dr. William Barry McGlasson (Australia) 2014
- Prof. Robert E. Paull (USA) 2014
- Dr. Ian W. Warrington (New Zealand) 2010
- Dr. Silviero Sansavini (Italy) 2002

(*): Deceased
Honorary members

Honorary Membership of the ISHS will be given by the Council to a person who is a member of the ISHS, in recognition of his/her exceptional service to the Society. A certificate will be given to the recipients of this ISHS Award.

- Prof. Dr. Uygun Aksoy (Turkey) 2008
- Dr. Robert J. Bogers (Netherlands) 2010
- Dr. C.D. Brickell (United Kingdom) 2002
- Prof.em.Dr.Dr.h.c. G. Bünemann (Germany) 1996
- Prof. Dr. Daniel J. Cantliffe (USA) 2010
- Prof. Dr. Lyle Craker (USA) 2006
- Prof. Dr. G. De Bakker, (Netherlands) 1982 (*)
- Dr. Roger de Vilmorin (France) 1970 (*)
- Prof. Dr. Geoffrey Richard Dixon (United Kingdom) 2014
- Dr. R.R.W. Folley (United Kingdom) 1982 (*)
- Prof.em. Dr. Dr.h.c. Dietrich Fritz, (Germany) 1990
- Prof. Dr. A. Gentile (Italy) 1996 (*)
- Prof. Em. Dr. Masatoshi Iwata (Japan) 1998
- Prof. Dr. Jules Janick (USA) 2010
- Prof. Dr. A. Klougart (Denmark) 1982 (*)
- Prof. Dr. A. Lecrenier (Belgium) 1974 (*)
- Prof. Dr. Jung-Myung Lee (South Korea) 2010
- Dr. Norman E. Looney (Canada) 2014
- Dr. U. Menini (Italy) 1996 (*)
- Prof. Dr. Roar Moe (Norway) 2006 (*)
- Prof. Dr. António A. Monteiro, (Portugal) 2002
- Dr. Mike Nichols (New Zealand) 2006
- Prof. Dr. S.A. Paunovic (Yugoslavia) 1990 (*)
- Prof. Dr. S.A. Pieniazek (Poland) 1978
- Prof. Dr. C.A.M. Portas (Portugal) 2006
- Dr. J.V. Possingham (Australia) 2002
- Prof. Dr. D.W. Robinson (Ireland) 1998 (*)
- Prof. Dr. Silviero Sansavini (Italy) 2002
- Prof. Dr. Franco Scaramuzzi, (Italy) 1998
- Prof. Dr. J.G. Seeley (United States of America) 1992 (*)
- Prof. Dr. P. Spiegel-Roy (Israel) 1978
- Prof. Dr. Peter Tétényi (Hungary) 1996 (*)
- Prof. Dr. T.D. Tindall (United Kingdom) 1990 (*)
- Dr. F.R. Tubbs (United Kingdom) 1974 (*)
- Prof. Dr. H.B. Tukey Jr. (United States of America) 1994
- Prof. Dr. H.B. Tukey Sr. (United States of America) 1970 (*)
- Dr. Omer Verdonck (Belgium) 2014
- Prof. Em. Dr. W.-U. Von Hentig (Germany) 1994
- Dr. W.F. Walker (Australia) 1982 (*)
- Dr. Ian W. Warrington (New Zealand) 2014
- Dr. Anthony David Webster (United Kingdom) 2014
- Prof. Dr. S.J. Wellensiek (Netherlands) 1970 (*)
- Dr. R.H. Zimmerman (United States of America) 2002

(*): Deceased

International horticultural congresses

- 1864 Brussels - Belgium
- 1865 Amsterdam – The Netherlands
- 1883 Ghent - Belgium
- 1885 Paris - France
- 1889 Paris - France
- 1893 Chicago, IL – USA
- 1900 Paris - France
- 1905 Paris - France
- 1910 Brussels - Belgium
- 1913 Ghent - Belgium
- 1923 Amsterdam – The Netherlands

- 1927 Vienna - Austria
- 1930 London - UK
- 1932 Paris - France
- 1935 Rome - Italy
- 1938 Berlin - Germany
- 1952 London - UK
- 1955 The Hague – The Netherlands
- 1958 Nice – France
- 1962 Brussels – Belgium
- 1966 College Park, MD - USA
- 1970 Tel-Aviv - Israel
- 1974 Warsaw - Poland
- 1978 Sydney – Australia
- 1982 Hamburg – Germany F.R.
- 1986 Davis, CA - USA
- 1990 Florence - Italy
- 1994 Kyoto – Japan
- 1998 Brussels – Belgium
- 2002 Toronto - Canada
- 2006 Seoul - Korea
- 2010 Lisbon - Portugal
- 2014 Brisbane - Australia
- 2018 Istanbul - Turkey
- 2022 ...

Council meetings

- 1960 The Hague – The Netherlands
- 1962 Brussels - Belgium
- 1964 Edinburgh – UK
- 1966 Maryland - USA
- 1968 Pisa - Italy
- 1970 Tel-Aviv - Israel
- 1972 Hannover – Germany F.R.
- 1974 Warsaw - Poland
- 1976 Florence – Italy
- 1978 Sydney – Australia
- 1980 Nyborg - Denmark
- 1982 Hamburg – Germany F.R.
- 1984 Aas - Norway
- 1986 Davis - USA
- 1988 Leamington Spa – UK
- 1990 Florence - Italy
- 1992 Leuven – Belgium
- 1994 Kyoto – Japan
- 1995 Montpellier – France
- 1997 Auckland – New Zealand
- 1998 Brussels – Belgium
- 2000 Cairo – Egypt
- 2002 Toronto - Canada
- 2004 Coolum - Australia
- 2006 Seoul - Korea
- 2008 Agadir - Morocco
- 2010 Lisbon - Portugal
- 2012 Fortaleza - Brazil
- 2014 Brisbane - Australia

Establishment of ISHS sections and commissions

Fruit Section: Established in 1960

- Founding Chair Prof. H.B. Tukey Sr. (USA)
- Chair 1963 - 1966: Prof. Dr. S.A. Pieniazek (Poland)

- Chair 1966 - 1970: Prof. Dr. F.V. Nilson (Sweden)
- Chair 1970 - 1976: Dr. F.R. Tubbs (UK)
- Chair 1976 - 1986: Prof. G. Bünemann (Germany F.R.)
- Chair 1986 - 1994: Prof. S. Sansavini (Italy)
- Chair 1994 – 2000: Dr. N.E. Looney (Canada)
- Chair 2000 – 2002: Dr. A.D. Webster (UK)

Since 2002: Section Pome and Stone Fruits

- Chair 2002 - 2010: Dr. A.D. Webster (UK)
- Chair 2010 - : Prof. Guglielmo Costa (Italy)

Since 2002: Section Nuts and Mediterranean Zone Fruits

- Chair 2002 - 2006: Prof. Dr. C. Fideghelli (Italy)
- Chair 2006 - : Dr. D. Avanzato (Italy)

Section Viticulture: Established in 1992

- Chair 1992 - 2000: Dr. J.V. Possingham (Australia)
- Chair 2000 - 2002: Prof. Dr. B.A. Bravdo (Israel)

Since 2002: Section Vine and Berry Fruits

- Chair 2002 - 2010: Prof. Dr. B.A. Bravdo (Israel)
- Chair 2010 - : Prof. Dr. Bernadine C. Strik (USA)

Committee Tropical Plantation Crops: Established 1961 - in 1970 the Committee became a Commission

- Chair 1966 - 1967: Dr. D. Wyman (USA)
- Chair 1967 – 1970: Dr. Casseres (Mexico)
- Chair 1970 - 1992: Dr. H.D. Tindall (UK)
- Chair 1992 - 1998: Dr. P. Martin-Prével (France)
- Chair 1998 – 2002: Dr. V. Galan-Sauco (Spain)

Since 2002: Section Tropical and Subtropical Fruits

- Chair 2002 - 2006: Dr. V. Galan Sauco (Spain)
- Chair 2006 - 2010: Dr. J. Ganry (France)
- Chair 2010 - : Prof. Dr. Sisir Kumar Mitra (India)

Section Citrus: Established 2005

- Chair 2005 - 2010: Prof. L.G. Albrigo (USA)
- Chair 2010 - : Dr. Yair Erner (Israel)

Section Vegetables: Established 1960.

- Chair 1960 – 1962: Prof. Dr. W. Nicolaisen (Finland).
- Chair 1962 – 1966: Prof. J.E. Hårdh (Hungary)
- Chair 1966 – 1974: Prof. Dr. D. Fritz (Germany)
- Chair 1974 - 1990: Ir. J. van Kampen (The Netherlands)
- Chair 1990 - 1998: Prof. Dr. C. Portas (Portugal)
- Chair 1998 - 2006: Prof. Dr. D. Cantliffe (USA)
- Chair 2006 - : Dr. Silvana Nicola (Italy)

Section Ornamental Plants: Established in 1960.

- Chair 1962 - 1964 Dr. A. Klougart (Denmark).
- Chair 1964 - 1970: Prof. Dr. J.G. Seeley (USA)
- Chair 1970 - 1974: Prof. Ir. J.G. Van Onsem (Belgium)
- Chair 1974 - 1978: Prof. E. Strømme (Norway)
- Chair 1978 - 1982: Prof. W.U. von Hentig (Germany F.R.)
- Chair 1982 - 1986: Prof. J.G. Seeley (USA)
- Chair 1986 - 1994: Dr. O.V. Christensen (Denmark)
- Chair 1994 – 2002: Dr. R. Bogers (The Netherlands)
- Chair 2002 - 2010: Dr. R. Criley (USA)
- Chair 2010 - : Prof. Dr. Margrethe Serek (Germany)

Section Medicinal and Aromatic Plants: Active since 1982, officially established in 1986

- Chair 1982 (officially appointed in 1986) – 1992: Prof. Dr. P. Tétényi (Hungary)
- Chair 1992 - 1997: Prof. A. Bandoni (Argentina)
- Chair 1997 - 2006: Prof. Dr. L. Craker (USA)
- Chair 2006 - : Prof. Dr. A. Máthé (Hungary)

Section Root and Tuber Crops: Established in 1990

- Chair 1990 – 1991: Dr. K. Caesar (Germany)
- Chair 1991 – 1998: Dr. S.K. Hahn (USA)

- Chair 1998 – 2002: Dr. M. Nichols (New Zealand)
- Chair 2002 - 2006: Dr. S. Kays (USA)
- Chair 2006 - 2010: Dr. W. Roca (Peru)
- Chair 2010 - : Prof. Dr. Noureddine Benkeblia (Jamaica)

Commission Plant Protection: Established 1964.

- Chair 1964 - 1970: Dr. L. Broadbent (UK)
- Chair 1970 - 1973: Dr. J.G. ten Houten (The Netherlands)
- Chair 1973 - 1986: Dr. H. Rønde Kristensen(Denmark)
- Chair 1986 - 1990: Prof. G. Crüger (Germany F.R.)
- Chair 1990 - 1998: Prof. C. Van Assche (Belgium)
- Chair 1998 - 2006: Dr. A. Vanachter (Belgium)
- Chair 2006 - : Dr. C. Hale (New Zealand)

The International Working Group for Horticultural Engineering: Established at the IHC in Nice in 1958, became the ISHS Committee on Engineering in 1960, later Commission Horticultural Engineering

- Chair 1958 - 1974: Dr. L.G. Morris Following 5 WG's were recognised: a. Glasshouse Construction, heating and air-conditioning, b. Horticultural Implements, c. Plastics, d. Electricity and e. Working methods and organisation.
- Chair 1974 - 1986: Dr. A.E. Canham (UK)
- Chair 1986 - 1990: Dr. G.H. Germing (The Netherlands)
- Chair 1990 - 1994: Prof. Chr. Von Zabeltitz (Germany)
- Chair 1994 – 2002: Dr. B. Bailey (UK)
- Chair 2002 - 2004: Prof. Dr. J. Meyer (Germany)
- Chair 2004 - : Dr. S. Sase (Japan)

Committee on Horticultural Economics: Established 1961; in 1962 the Committee became a Commission

- Chair 1962 – 1968: Prof. Dr. W. Bush (Germany)
- Chair 1968 – 1969: Dr. L.G. Bennett (UK)
- Chair 1969 - 1975: Dr. R.R.W. Folley
- Chair 1975 - 1982: Dr. M. Carlsson (W. Germany)
- Chair 1982 - 1990: Prof. Dr. R. von Alvensleben (Germany F.R.)
- Chair 1990 - 1998: Prof. Dr. U. Avermaete (Belgium)
- Chair 1998 - 2006: Dr. N. De Groot (The Netherlands)
- Chair 2006 - : Prof. Dr. P.P. Oppenheim (Australia)

Committee on Protected Cultivation: Established 1961; in 1962 the Committee became a Commission

- Chair 1962 – 1966(?): Prof. Dr. J.P. Hudson (UK)
- Chair 1966(?) - 1974: Prof. Dr. A. Lecrenier (Belgium)
- Chair 1974 - 1986: Mad. Dr. D. Blanc (France)
- Chair 1986 - 1994: Prof. F. Tognoni (Italy)
- Chair 1994 - 1998: Ir. M.M.M. van Winden (The Netherlands)
- Chair 1998 - 2006: Prof. Dr. A. Abou-Hadid (Egypt)
- Chair 2006 - : Dr. Ing. Agr. N. Castilla (Spain)

Committee on Soilless Culture: Established 1961; in 1962 the Committee became a Commission. The Commission did not exist long.

Commission Plant Substrates: Established 1970

- Chair 1970 - 1982: Prof. Dr. Penningsfeld (Germany F.R.)
- Chair 1982 - 1994: Dr. O. Verdonck (Belgium)
- Chair 1994 - 1999: Dr. F. Lemaire (France)
- Chair 1999 - 2006: Dr. O. Verdonck (Belgium)
- Chair 2006 - 2010: Prof. Dr. W.H. Schnitzler (Germany)
- Chair 2010 - : Dr. W.R. Carlile (Ireland)

Commission on Urban Horticulture: established 1982, re-named Commission Landscape and Urban Horticulture in 2002

- Chair 1982 - 1986: Dr. D.W. Robinson (Ireland)
- Chair 1986 - 1990: Dr. Nina L. Bassuk (USA)
- Chair 1990 - 1994: Prof. Dr. H.B. Tukey Jr. (USA)
- Chair 1994 - 2006: Dr. W. Simpson (UK)
- Chair 2006 - : Prof. Dr. G. D. Groening (Germany)

Commission Education and Training: Established 1984, re-named Commission Education, Research Training and Consultancy.

- Chair 1984 - 1998: Dr. M. Nichols (New Zealand)
- Chair 1998 - 2006: Prof. Dr. G. Dixon (UK)

- Chair 2006 - 2010: Prof. Dr. E.W. Hewett (New Zealand)
- Chair 2010 - 2013: Associate Professor Dr. David Aldous (Australia - deceased while in office)
- Chair 2013 - 2014: Dr. Alan Hunter (Ireland - Acting Chair replacing Dr. David Aldous who passed away in 2013)

Commission Biotechnology: Established 1992

- Chair 1992 – 1998: Dr. R.H. Zimmerman (USA)
- Chair 1998 – 2002: Dr. F. Hammerschlag (USA)
- Chair 2002 - 2006: Dr. C. Damiano (Italy)
- Chair 2006 - 2010: Prof. Dr. R.A. Drew (Australia)
- Chair 2010 - : Dr. Maurizio Lambardi (Italy)

Commission Postharvest: Established 1992, re-named Commission Quality and Postharvest Horticulture in 2002

- Chair 1992 – 1998: Dr. M. Herregods (Belgium)
- Chair 1998 - 2006: Prof. Dr. E.W. Hewett (New Zealand)
- Chair 2006 - 2010: Prof. Dr. P. Tonutti (Italy)
- Chair 2010 - : Dr. Sirichai Kanlayanarat (Thailand)

Commission Plant Genetic Resources: Established 1998

- Chair 1998 – 2002: Prof. Dr. C. Fideghelli (Italy)
- Chair 2002 - 2010: Dr. K. Hummer (USA)
- Chair 2010 - : Dr. Hannah Jaenicke (Germany)

Commission Sustainability in Integrated and Organic Horticulture: Established 2005

- Chair 2005 – : Dr. R.K. Prange (Canada)

Commission Nomenclature and Cultivar Registration

- Chair 1963 - ?: Mr. J.S.L. Gilmour (UK)
- Chair 1971 - 1980: Dr. C. Walkof (Canada)
- Chair 1980 - 2000: Dr. C.D. Brickell (UK)
- Chair 2000 - 2005: Mr. P. Trehane (UK)
- Chair 2005 - : Dr. J. Cubey (UK)

Commission Irrigation and Plant Water Relations: Established 2004

- Chair 2004 – 2010: Prof. Dr. I. Ferreira (Portugal)
- Chair 2010 - : Dr. Richard L. Snyder (USA)

Commission Fruits and Vegetables for Health: Established 2006

- Chair 2006 – 2010: Prof. Dr. Y. Desjardins (Canada)
- Chair 2010 - : Prof. Dr. Olaf Van Kooten (Netherlands)

Annex 2 (information from [7] and [8])

Modified from http://www.actahort.org/members/membershiplist?action=speciallist&speciallist=board (top table), and http://www.ishs.org/ishs-board (bottom part), *verbatim*, for better structure. Photos, telephones and contact numbers removed.

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Dr. Kim Hummer	United States of America
Prof. Dr. António A. Monteiro	Portugal
Prof. Dr. Georg Noga	Germany
Jozef Van Assche	Belgium
Prof. Dr. Ian J. Warrington	New Zealand

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1820 Auckland
New Zealand

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Prof. Dr. I.J. Warrington
Emeritus Professor
Massey University
Private Bag 11 222 Palmerston North
New Zealand

Executive director ISHS secretariat:
Ir. Jozef Van Assche
ISHS Secretariat
PO Box 500
3001 Leuven 1
Belgium

Annex 3 (information from [9])
Based on http://www.actahort.org/members/membershiplist?action=speciallist&speciallist=council, *verbatim*, and modified only for punctuation or capitalization, or better structure.
ISHS council members

Name	Country/Region
Prof. Ricardo Andreau	Argentina
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Prof. Diana Frezza	Argentina
Dr. Hovik Hovhannisyan	Armenia
Dr. Russell Arthur Stephenson	Australia
Prof. Dr. Roderick A. Drew	Australia
Mr. Gottfried Kellner	Austria
Ir. Michaela Schwaiger	Austria
Ir. Hector Willocx	Belgium
Prof. Dr. Urbain Avermaete	Belgium
Prof. Dr. Hugo Magein	Belgium
Prof. Dr. Nikola Micic	Bosnia and Herzegovina
Prof. Dr. Gordana Djuric	Bosnia and Herzegovina
Dr. Boris Pasalic	Bosnia and Herzegovina
Dr. Abel Rebouças São José	Brazil
Prof. Patrícia D Duarte de Oliveira Paiva	Brazil
Tiyoko Nair Hojo Rebouças	Brazil
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Dr. Stoyka Petkova Masheva	Bulgaria
Dr. Argir Zhivondov	Bulgaria
Dr. Denis Charlebois	Canada
Dr. Samir Debnath	Canada
Prof. Dr. David Percival	Canada
Prof. Dr. Jorge Benjamin Retamales	Chile
Prof. Dr. Zhen-Hai Han	China
Prof. Zhang Qixiang	China
Prof. Dr. Rifei Sun	China
Dr. Dennis Wang	Chinese Taipei
Mr. Louis K.H. Liou	Chinese Taipei
Dr. Lao-Dar Juang	Chinese Taipei
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Assist. Prof. George Manganaris	Cyprus
Prof. Dr. Ales Lebeda	Czech Republic
Dr. Robert Pokluda	Czech Republic
Dr. Michelle Williams	Denmark
Dr. Reijo Karjalainen	Finland
Mr. Pertti Rajala	Finland
Mr. Kjell Brannas	Finland
Magalie Jannoyer	France
Dr. Robert Habib	France

Prof. Jean-Claude Mauget	France
Prof. Dr. Jens N. Wuensche	Germany
Prof. Dr. Georg Noga	Germany
Prof. Dr. Dr. Christian Ulrichs	Germany
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Emelia Oberye Monney	Ghana
Dr. Francis Appiah	Ghana
Prof. Dr. Athanasios Economou	Greece
Prof. Dr. Panayiotis Nektarios	Greece
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Dr. Károly Hrotkó	Hungary
Dr. Harishchandra Prasad Singh	India
Dr. Amanollah Javanshah	Iran
Dr. Ghareyazie Behzad	Iran
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Prof. Dr. Rina Kamenetsky	Israel
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Dr. Alison Hodder	Italy
Dr. Federica Rossi	Italy
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Prof. Dr. Michio Shibata	Japan
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Prof. Dr. Mostafa Qrunfleh	Jordan
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Prof. Dr. Cheol Choi	Korea (Republic of)
Prof. Dr. Byoung Ryong Jeong	Korea (Republic of)
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Dr. Ir. Leon Wietor	Luxembourg
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Dr. Haron Sharif	Malaysia
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Ms. Leylha Rebaza Garcia	Peru
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Prof. Dr. Marian Saniewski	Poland
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Prof. Abdullah Alsadon	Saudi Arabia
Dr. Nasser Al-Khalifah	Saudi Arabia
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Prof. Dr. Momcilo Milutinovic	Serbia
Prof. Dr. Mihailo Nikolic	Serbia
Prof. Dr. Franci Stampar	Slovenia
Dr. Robert Veberic	Slovenia
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Ms. Karin Hannweg	South Africa
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Dr. Víctor Galán Sauco	Spain
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Dr. Tag Elsir Ibrahim	Sudan
Dr. Mohammed Taha Yousif	Sudan
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Prof. Dr. Paul Jensén	Sweden
Prof. Hilde Nybom	Sweden

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Dr. Christoph Carlen	Switzerland
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Pitsawat Buara	Thailand
Dr. Songpol Somsri	Thailand
Mr. Somchai Watanayothin	Thailand
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Prof. Dr. Gökhan Söylemezoglu	Turkey
Prof. Dr. Uygun Aksoy	Turkey
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Prof. Geoffrey Richard Dixon	United Kingdom
Dr. Heather Barrett-Mold	United Kingdom
Mr. Michael Neff	United States of America
Prof. Daniel J. Cantliffe	United States of America
Prof. Dr. L. George Wilson	United States of America
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Prof. María Carolina Cásares Wong	Venezuela
Prof. Dámaso Bautista Arellano	Venezuela

Annex 4 (information from [10])
Cropped screenshot of http://www.ishs.org/scientific-structure.

Scientific structure

言語を選択

10 crop related Sections and **14 discipline related Commissions** each year all Section and Commission Chairs meet in the ISHS Executive Committee within the structure of Sections/Commissions **more than 130 Working Groups** are currently active to join ISHS Sections, Commissions or Working Groups online or to update your membership details and participate in ISHS Mailing Lists **sign in to your ISHS membership account here**.

SECTIONS

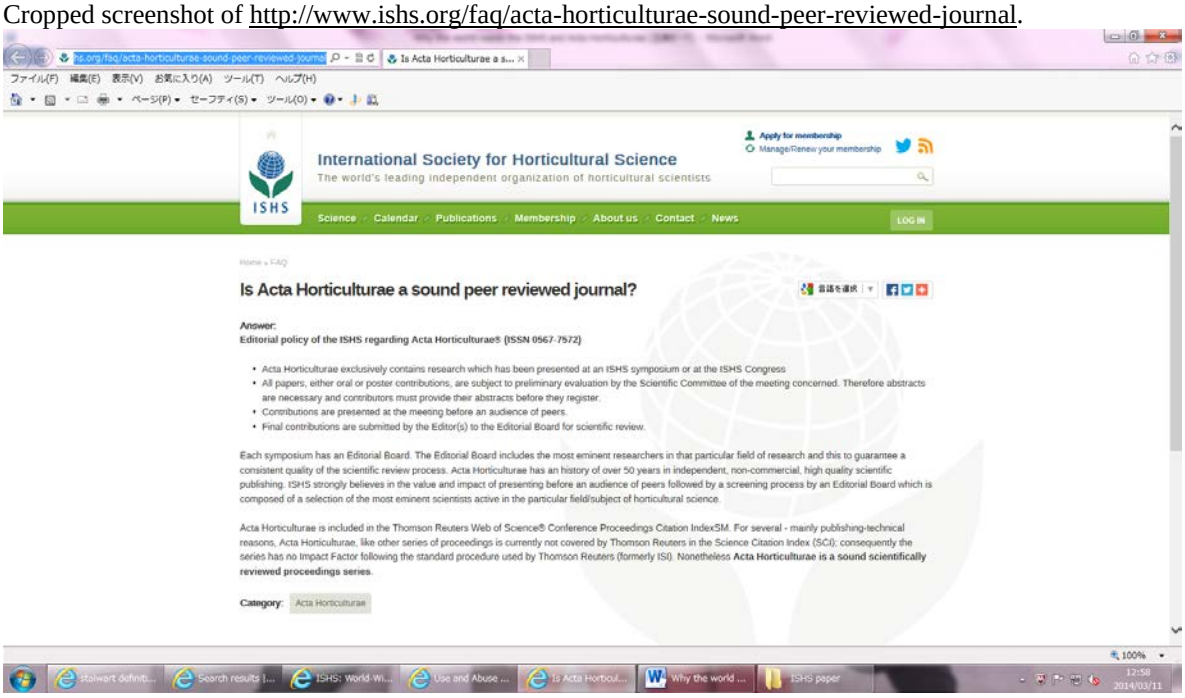
- Pome and Stone Fruits
- Vine and Berry Fruits
- Nuts and Mediterranean Climate Fruits
- Tropical and Subtropical Fruits
- Medicinal and Aromatic Plants
- Ornamental Plants
- Root and Tuber Crops
- Vegetables
- Citrus
- Banana and Plantain

COMMISSIONS

- Economics and Management
- Education, Research Training and Consultancy
- Horticultural Engineering
- Molecular Biology and In Vitro Culture
- Nomenclature and Cultivar Registration
- Plant Protection
- Irrigation and Plant Water Relations
- Plant Substrates and Soilless Culture
- Quality and Postharvest Horticulture
- Protected Cultivation
- Landscape and Urban Horticulture
- Plant Genetic Resources
- Sustainability through Integrated and Organic Horticulture
- Fruits and Vegetables and Health

Annex 5 (information from web-site [14])

Cropped screenshot of http://www.ishs.org/faq/acta-horticulturae-sound-peer-reviewed-journal.



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- Acta Horticulturae exclusively contains research which has been presented at an ISHS symposium or at the ISHS Congress
- All papers, either oral or poster contributions, are subject to preliminary evaluation by the Scientific Committee of the meeting concerned. Therefore abstracts are necessary and contributors must provide their abstracts before they register.
- Contributions are presented at the meeting before an audience of peers.
- Final contributions are submitted by the Editor(s) to the Editorial Board for scientific review.

Each symposium has an Editorial Board. The Editorial Board includes the most eminent researchers in that particular field of research and this to guarantee a consistent quality of the scientific review process. Acta Horticulturae has an history of over 50 years in independent, non-commercial, high quality scientific publishing. ISHS strongly believes in the value and impact of presenting before an audience of peers followed by a screening process by an Editorial Board which is composed of a selection of the most eminent scientists active in the particular field/subject of horticultural science.

Acta Horticulturae is included in the Thomson Reuters Web of Science® Conference Proceedings Citation Index℠. For several - mainly publishing-technical reasons, Acta Horticulturae, like other series of proceedings is currently not covered by Thomson Reuters in the Science Citation Index (SCI): consequently the series has no Impact Factor following the standard procedure used by Thomson Reuters (formerly ISI). Nonetheless **Acta Horticulturae is a sound scientifically reviewed proceedings series**.

Category: Acta Horticulturae

Annex 6 (information from web-site [15])

Screenshot of http://www.ishs.org/news/use-and-abuse-impact-factor-scientists-rebel.

Use and Abuse of the Impact Factor: Scientists Rebel!

言語を選択

Post date:
Tuesday 3 September 2013

Author:
ISHS Secretariat

Yves Desjardins, ISHS Board Member Responsible for Publications

For many years, horticulture scientists have expressed doubts and dissatisfaction with the use of the **impact factor (IF)** as a criterion for their promotion and the evaluation of the quality of their research. Dr. Jules Janick, former Board member and ISHS editor, wrote appropriately about the **"Tyranny of the impact factor"** and the misuse of this bibliometric parameter for assessing the impact of research (Janick, 2008). It seems that horticulturists are not alone anymore in rejecting the concept of IF and its use and abuse. Actually, the entire scientific community may be on the verge of a small rebellion against IF. The echoes of this uprising come from San Francisco.

Before talking about San Francisco, let's backtrack. The IF was conceived by Eugene Garfield in the 1970s as a tool intended for research libraries to judge the relative merit of scientific journals to intelligently spend their limited and shrinking subscription budgets. This index was, and still is, a measure of the number of citations an article receives over the total number of articles published in that journal during the two preceding years. **It is considered a measure of the overall journal quality, but is not a measure of the quality of individual papers**. Indeed, Seglen (1992) reported that only 15% of the articles in scientific journals account for more than 50% of the citations, and 90% of papers have fewer citations than the average!!! Over the years, use of the IF has drifted from its original purpose. Now, international scientists are ranked by the weight conferred by the IF of the journal in which they publish. This conceptual shift is absurd. The IF has been appropriately criticized for many years. Rating papers on the average ranking of the journal in which they were published is inappropriate.

Indeed the IF concept has been denounced by many scientific organizations for its shortcomings and lack of objectivity. For one, the index is discipline dependent. In other words, it is largely influenced by the size of the community in a specific field of science. Thus, small scientific communities have limited opportunities to cite a paper. IF is also affected by the speed at which a paper is published and by the vitality of the domain. For example, a paper on AIDS stands more chance of being cited than a paper on the effect of nitrogen on postharvest storage of mangosteen. Thomson Reuters recommends not to compare IF between disciplines but unfortunately there are many universities and organizations simply ignoring this basic rule.

The IF can be tricked and manipulated by an aggressive editorial policy whereby a large number of review articles that receive higher citations are published, the number of articles published is restricted (e.g. Nature and Science with acceptation rates of less than 10%), higher impact papers are published early in the year, so they can be cited over a longer time, or a coercive policy of self-citations is applied. IF has also been blamed for promoting "me-too" science and discouraging high risk and potentially ground-breaking work because of fear of not being cited or being cited by too few persons.

It's in this context that many scientists (+ 8800) and reputable science organizations (+ 350) have signed the **San Francisco Declaration of Research Assessment (DORA, 2012)**, as an outcome of the last meeting of the **American Society for Cell Biology** in December 2012.

The declaration aims to correct the distortions in the evaluation of scientific research quality and to stop the use of the IF for this purpose altogether!

The declaration, which has sent shockwaves through the science community, calls for

1. a ban on the use of journal-based metrics such as journal IF in funding, appointments and promotion considerations;
2. judgement of research on its own merit rather than on the basis of the journal where it is published; and
3. use of the new opportunities conferred by on-line publication to loosen limits on specific length, number of words, figures and references in articles, while exploring new indicators of research significance and merit.

Many recommendations of the 18 listed in the declaration stand out and are of direct relevance to us in academia. For instance, *"when involved in committees making decisions about funding, hiring, tenure or promotion, researchers should make their assessment based on scientific content rather than publication metrics and should challenge research assessment practices that rely inappropriately on journal IF"*. Scientists should be aware and use a range of article-based metrics (*"altmetrics"*) when available for assessing the quality of research output. Publishers are also invited to *"limit their emphasis on IF as a promotional tool and make available a range of article-based metrics"*. Other recommendations are made to funding agencies and institutions to be explicit about the criteria they use to evaluate scientific productivity.

During its last meeting in Matera, Italy, the ISHS Board enthusiastically signed the DORA, a declaration that conforms to what the Society has been claiming for years: the IF does not properly assess the scientific significance of papers published in the field of horticulture science, e.g., the low IF of most horticultural journals (< 1.5). This is particularly important for the recognition of Acta Horticulturae®, which is not considered by ISI-Thomson Reuters' Web-of-Knowledge® as a scientific journal, even if it is fully refereed in the ISI conference database. Acta is referenced by Scopus and thus used in the calculation of the H-Index (the set of a scientist's most cited papers divided by the number of citations that they have received in other publications) and altmetrics.

The recent decisions by the ISHS Board to provide a **digital object identifier (DOI)** to each published Acta Horticulturae® article, to invest in the infrastructure to **fully cross-reference** articles and bibliographies and to provide the capacity for **on-line publication** of articles are opening new opportunities to comply with the San Francisco's DORA declaration. Opening the door to the WEB 2.0 into PubHort will allow the generation of new altmetrics, including conventional ones like the number of times an article is viewed, downloaded and cited, but also new ones such as the use of social media (Twitter, Facebook and LinkedIn), online reference managers (CiteULike, Zotero and Mendeley), collaborative encyclopedias (Wikipedia), Blogs (both scholarly and general-audience), and scholarly social networks (ResearchGate or Academia.edu). At this stage, we are ready to provide the number of Twitter tweets generated by an Acta Hortculturae® article (the so-called Twimpact Factor), a reflection of the "buzz" generated by an article in the scientific community and the media, a metric that is gaining popularity as a prediction of the impact of a paper in the community at large.

As the ISHS Board member responsible for publications, and on behalf of the Board, I stand and promote the publication of quality research. Articles in Acta Horticulturae® and other horticultural publications will be better recognized through the use of the H-index and altmetrics than with IF. We support the DORA and so should you. **I invite you to read the "Declaration" and sign it in support**.

ISHS does not want to play the IF game anymore and is taking steps to use altmetrics when and wherever possible.

We hear the echo of San Francisco DORA... and retweet it!

References

- DORA, The Declaration on Research Assesment, 2012. http://am.ascb.org/dora/, consulted on the 3/08/2013.
- Janick, J. 2008. The tyranny of the impact factor. Chronica Hort. 48(2):3-4.
- Seglen, P.O. 1992. The skewness of science. J. Amer. Soc. Inf. Sci. 43(9):628-638.

Annex 7 (information from [18])
Based on http://www.ishs.org/calendar, *verbatim*.
ISHS Calendar of Events

Name	Begin date	Country name	Place	URL
XI International Conference on Grapevine Breeding and Genetics	28/07/2014	China	Beijing	http://www.grapebreeding2014.com/...
International Symposium on Unravelling the Banana's Genomic Potential	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_36.html
International Symposium on Biosecurity, Quarantine Pests and Market Access	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_32.html
International Symposium on Physiology of Perennial Fruit Crops and Production Systems in a Changing Global Environment	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_8.html
XXIX International Horticultural Congress: IHC2014	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/
International Symposium on Molecular Biology in Horticulture	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_24.html
International Symposium on Horticulture in Developing Countries and World Food Production	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_3.html
II International Berry Fruit Symposium: Interactions! Local and Global Berry Research and Innovation	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_12.html
International Symposium on Abscission Processes in Horticulture and their Manipulation to Improve Crop Growth, Development and Quality	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_9.html
International Go Nuts Symposium	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_52.html
International Symposium on Consumer and Sensory Driven Improvements to the Quality of Fruits and Nuts	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_11.html
VIII International Pineapple Symposium	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_35.html
III International Jujube Symposium	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_43.html
International Symposium on Sustainable Management in the Urban Forest	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_33.html
IV International Symposium on Tropical Wines and International Symposium on Grape and Wine Production in Diverse Regions	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_10.html
V International Conference on Landscape and Urban Horticulture	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_28.html

III International Conference on Turfgrass Management and Science for Sports Fields	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_29.html
XII International People Plant Symposium: Horticulture and Human Communities: People, Plants and Places	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_2.html
VI International Symposium on Human Health Effects of Fruits and Vegetables - FAVHEALTH2014	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_1.html
International Symposium on Water Scarcity, Salinization and Plant Water Relations for Optimal Production and Quality	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_5.html
International Symposium on the Non-destructive Assessment of Fruit Attributes	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_17.html
International Symposium on Organic Waste to Horticultural Resource	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_30.html
International Symposium on Eco-Efficiency in the Lifecycle of Horticultural Production	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_31.html
International Symposium on Ornamental Horticulture in the Global Greenhouse	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_15.html
International Symposium on Postharvest Knowledge for the Future	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_19.html
International Symposium on Mango	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_39.html
IV International Symposium on Papaya	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_34.html
International Symposium on Plant Breeding in Horticulture	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_23.html
III International Genetically Modified Organisms in Horticulture Symposium - Past, Present and Future	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_25.html
International Symposium on Horticulture to Improve the Livelihoods of Communities in Developing Countries	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_6.html
International Symposium on Tropical Fruit	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_37.html
International Symposium on Innovative Plant Protection in Horticulture	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_18.html
International Symposium on Root and Tuber Crops: Sustaining Lives & Livelihoods into the Future	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_40.html
International Symposium on High Value Vegetables, Root and Tuber Crops and Edible Fungi -	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_14.html

Production, Supply and Demand				
International Symposium on Micropropagation and In Vitro Techniques	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_26.html
VII International Symposium on Education, Research Training and Consultancy	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_20.html
International Symposium on Plants, as Factories of Natural Substances, Edible & Essential Oils	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_42.html
XVII International Symposium on Horticultural Economics and Management & V International Symposium on Improving the Performance of Supply Chains in the Transitional Economies	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_21.html
International Symposium on the Impact of Asia-Pacific Horticulture - Resources, Technology and Social Welfare	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_4.html
IV International Symposium on Plant Genetic Resources: Genetic Resources for Climate Change	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_27.html
International Symposium on Promoting the Future of Indigenous Vegetables Worldwide	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_13.html
International Symposium on New Technologies in Protected Cultivation	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_22.html
International Symposium on Mechanisation, Precision Horticulture, and Robotics	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/symposium_16.html
International Symposium on Carrot and Other Apiaceae	17/09/2014	France	Angers	http://www.symposium-carrot-...
VIII International Symposium on Kiwifruit	18/09/2014	China	Dujiangyan city, Chengdu	http://www.kiwifruit2014.com
VI Balkan Symposium on Vegetables and Potatoes	29/09/2014	Croatia	Zagreb	http://www.6bsvp.org
60th Annual Meeting of the Interamerican Society for Tropical Horticulture (ISTH and ISHS) and V Colombian Congress for Horticulture	06/10/2014	Colombia	Medellin	
I International Symposium on Grapevine Roots	16/10/2014	Italy	Rauscedo	http://vit.entecra.it/...
III International Symposium on Citrus Biotechnology	11/11/2014	Japan	Shimizu, Shizuoka	http://iscb2014-japan.org/
III Asia Pacific Symposium on Postharvest Research, Education and Extension: APS2014	08/12/2014	Vietnam	Hochiminh City	http://www.aps2014.vn/
International Symposium on Medicinal Plants and Natural Products	16/03/2015	Colombia	Bogotá	http://phytoessence.org/ISMPNP2015

VI International Symposium on Production and Establishment of Micropropagated Plants	19/04/2015	Italy	San Remo	http://www.regflor.it/ISHS2015/
II International Workshop on Bacterial Diseases of Stone Fruits and Nuts	21/04/2015	Turkey	Izmir	
III International Conference on Quality Management in Supply Chains of Ornamentals (QMSCO 2015)	01/05/2015	Iran	Shiraz	http://www.qmsco2015.com/
V International Symposium on Ecologically Sound Fertilization Strategies for Field Vegetable Production	18/05/2015	China	Beijing	
VII International Symposium on Edible Alliaceae	21/05/2015	Turkey	Bursa	
IV International Symposium on Guava and Other Myrtaceae	24/05/2015	South Africa	Hazyview	
XVIII International Symposium on Horticultural Economics and Management	31/05/2015	Sweden	Alnarp	http://www.slu.se/ishseconomicman2015
VIII International Symposium on Irrigation of Horticultural Crops	08/06/2015	Spain	Lleida	
XIV Eucarpia Symposium on Fruit Breeding and Genetics	14/06/2015	Italy	Bologna	http://www.eucarpiafruit2015.org
XI International Rubus and Ribes Symposium	21/06/2015	United States of America	Asheville, NC	http://www.rubusribes2015.com
XXV Eucarpia Symposium on Ornamentals	28/06/2015	Belgium	Melle	http://www.eucarpiaornamentals2015.be/
XVI International Symposium on Apricot Breeding and Culture	29/06/2015	China	Shenyang City (Liaoning Province)	
ICESC2015: Hydroponics and Aquaponics at the Gold Coast	05/07/2015	Australia	Jupiter's Gold Coast, QLD	
Greensys 2015 - International Symposium on New Technologies and Management for Greenhouses	19/07/2015	Portugal	Evora	http://www.greensys2015.uevora.pt
II International Workshop on Vineyard Mechanization and Grape and Wine Quality	26/07/2015	United States of America	Fredonia, NY	
II International Symposium on Pyrethrum	06/08/2015	Japan	Kyoto	
VIII International Symposium on New Ornamental Crops and XII International Protea Research Symposium and XVII International Protea Association Conference	20/08/2015	Australia	Perth	http://protea-new-ornamentals2015.org/
V International Symposium on Fig	31/08/2015	Italy	Napoli	
International Symposium on Growing Media, Composting and	07/09/2015	Austria	Vienna	http://www.susgro2015.ages.at

Substrate Analysis - SusGro2015				
II International Symposium on Mycotoxins in Nuts and Dried Fruits	08/09/2015	Nigeria	Abuja	
III International Conference on Fresh-Cut Produce: Maintaining Quality and Safety	13/09/2015	United States of America	Davis, CA	http://fresh-cut2015.ucdavis.edu
II International Symposium on Mechanical Harvesting and Handling Systems of Fruits and Nuts	13/09/2015	United States of America	Washington	
III Balkan Symposium on Fruit Growing	16/09/2015	Serbia	Belgrade	
IX International Symposium on Artichoke, Cardoon and their Wild Relatives	28/09/2015	Argentina	La Plata	http://www.alcachofa2015.com/
XI International Mango Symposium	28/09/2015	Australia	Darwin, Northern Territory	http://mango2015.com.au
V International Symposium on Applications of Modelling as an Innovative Technology in the Horticultural Supply Chain - Model-IT 2015	11/10/2015	Netherlands	Wageningen	
I International Symposium on Moringa	19/11/2015	Philippines	Manila	http://ism2015.moringaling.net/
IX International Symposium on In Vitro Culture and Horticultural Breeding	11/01/2016	Egypt	Giza	
III International Symposium on Biotechnology of Fruit Species	01/05/2016	Turkey	Antalya	
XII International Symposium on Flower Bulbs and Herbaceous Perennials	28/06/2016	China	Kunming	
III All Africa Horticultural Congress	07/08/2016	Nigeria	Lagos	
III International Symposium on Horticulture in Europe - SHE2016	19/09/2016	Greece	Chania, Crete	
HortiModel2016: Models for Plant Growth, Environmental Control and Farm Management in Protected Cultivation	19/09/2016	France	Avignon	
VI International Symposium on Tropical and Subtropical Fruits	26/09/2016	Egypt	Kafr El-Sheikh	
VI International Chestnut Symposium	26/09/2016	Turkey	Atakum, Samsun	
VIII International Symposium on Mineral Nutrition of Fruit Crops	04/10/2016	Turkey	Sanliurfa	
VIII International Olive Symposium	10/10/2016	Croatia	Split	
V International Symposium on Saffron Biology and Technology: Advances in Biology, Production	10/11/2016	Morocco	Agadir	

and Uses			
XII International Controlled and Modified Atmosphere Research Conference - CaMa2017	18/06/2017	Poland	Warsaw
IX International Congress on Hazelnut	15/08/2017	Turkey	Atakum, Samsun
Greensys 2017 - International Symposium on High Technology for Environment Engineering, Energy-Saving and Crop Management in Greenhouse Systems	20/08/2017	China	Beijing

Annex 9 (information from [21])

Partial screenshot of http://www.ishs.org/legal.

http://www.ishs.org/legal

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