



ISSS NEWSLETTER

*international society
for seed science*

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<http://www.kew.org/iss>

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president's welcome to the 10th ISSS CONFERENCE

It is indeed a pleasure to welcome both ISSS members – and those whom we hope will become members, to this, the 10th Conference of the International Society for Seed Science. Being in this splendid centre in the state of Bahia in Brazil, and regarding both regular participants and so many new faces, I would like to tell you something about the genesis of the ISSS and the prominent people whose efforts over the years, have made this occasion possible.

What has become the ISSS had its origins in a small, successful Workshop organised by Alfred Mayer in Jerusalem in the late 1970s. At that stage, a small group of seed scientists, including Alfred Mayer, Cees Karssen, Michael Black and Derek Bewley, decided to continue such Workshops, with the next organised in the mid-1980s in Wageningen in the Netherlands by Cees Karssen.

The next Workshop – still of a relatively small group of seed scientists – was convened by Ray Taylorson



and held in Williamsburg, Virginia in the USA in 1989. At that stage, presentations were by invitation, rather than by open participation. It was Daniel Côme who changed things when, in 1992 he and Françoise Corbineau organised the first really big meeting in Angers in France. This was also the first occasion when the meeting was open to submitted presentations. Then, in 1995, the Workshop was organised by Richard Ellis with Eric Roberts' group in Reading, England.

Up to then, though, the meetings were not planned by a formalised group, and the idea of a basic organisation, the ISSS, was the brain-child of Michael Black who, with Ken Thompson, later also agreed that the journal, *Seed Science Research*, which Mike (Black) founded in 1990, could become a 'home' for seed science including seed ecology. So, communications with seed scientists were set up, using Ralph Obendorf's seed list. Then followed back-and-forth e-mail discussions among Mike Black, Kent Bradford, Daniel Côme, Hugh Pritchard, Derek Bewley and Ralph Obendorf, which led to the founding of the ISSS at the 1999 meeting in Merida, Mexico, in 1999.

At that stage, Daniel Côme became the first President, while Mike Black worked hard to establish the Constitution and to register the ISSS as a body with rules, regulations and legal officers. Daniel Côme was succeeded by Ralph Obendorf as President in 2002 at the 7th Workshop in Salamanca, Spain, which was organised by Gregorio Nicolás. Then Derek Bewley assumed this office at the meeting – the last to be called a Workshop – in Brisbane, Australia, in 2005. Derek Bewley was responsible for generally modifying and improving the original constitution, to what it is today.

Two fundamental changes took place in Brisbane: Firstly, as the nature of the meetings had changed, the term, Conference, superseded 'Workshop', and also at that meeting it was decided not to continue publishing the Proceedings as a book. Therefore the 2008 meeting in Olsztyn, Poland, hosted by Ryszard Gorecki, was officially called the 9th Conference of the ISSS, and it was there that the organiser of this 2011 Conference, Renato de Castro, made a presentation about Salvador, that won the bid for him to host this meeting.

We therefore should thank Renato for enabling us all to be here today, and look forward to a memorable event from the scientific and technological aspects, to the social occasions in this wonderful setting.

Pat Berjak



From left to right: in-coming President, Bill Finch-Savage, outgoing President, Pat Berjak, and newly-elected President-elect, Françoise Corbineau.



Left, Renato D. de Castro, president of the organising committee with Luzimar G. Fernandez, vice-president of the organising committee.

The 10th Conference of the ISSS, held April 10-15, 2011 in Costa do Sauípe, Bahia, Brazil, brought together 317 participants from all around the world, of which 175 (55%) were professionals, 99 (31%) were students, 19 (6%) were speakers, 12 (4%) were exhibitors, and 12 (4%) were accompanying persons. Among the professionals, 88 delegates were Brazilian. Over the course of the week there were 73 oral presentations, 387 poster presentation), 20 lectures, and 5 special sessions and workshops. Seventy eight participants were newly joined members of the ISSS and 41 were existing members.

More pictures from the conference can be seen at http://www.youtube.com/watch?v=YEdSjMNYNI1o&feature=player_embedded and the conference website can still be accessed: <http://www.seeds2011.com.br>

Renato de Castro

Pat Berjak (outgoing President) handed over to Bill Finch-Savage (incoming President) during the closing ceremony of our 10th ISSS conference in Brazil and in line with the traditions of the society the new president gave an acceptance speech. On this occasion, Renato de Castro (Conference President), who had organised many special entertainments during the conference, organised perhaps the most special one for immediately after the closing ceremony, and that was to see the release of newly-hatched turtles on the beach outside the conference hotel. Bill therefore kept his acceptance speech (below) very brief so this great opportunity was not delayed too close to nightfall.

He began by offering his thanks to Renato and all his team for putting together such a splendid and successful conference and proceeded:

"At the start of the conference Pat outlined the history of the ISSS and this clearly showed that the society is well established and has a functioning structure. I am very proud and honoured to now play my part in taking the society forward. My intention is to continue to grow the society and increase its membership and influence. In part this will be through links with other organisations and we have seen this in action at this conference through the direct involvement of ABRATES (Brazilian Seed Science Society) and ISTA (International Seed Testing Association) and we welcome this. However, we must always bear in mind the focus of our society and keep its separate identity, which is to take forward innovative seed science and its application in all aspects of seeds.

"To do this I feel it is essential that we retain the three

main meetings – the more general triennial conference we are attending now and the next of which we have just heard will be in China (2014) – and the two specialist workshops on Seed Ecology and on Molecular Aspects of Dormancy and Germination. The next Ecology Workshop is also to be held in China (2013) and the Molecular workshop is to be held in Paris, France (2013). In the future we hope to add further workshops if they have a clearly different focus.

“Going forward it is also important to continue to promote seed science in the wider scientific community and we do this by promoting seed science sessions during the conferences of other societies, such as ISTA, ISHS, etc. We should also look for further opportunities to promote seed science as an important and leading area of plant science. You can be assured that I will do whatever is necessary to support ISSS, and to work hard on behalf of the society and for seed science. It is also important that all members have a say and feel part of the society, and so I am always happy to be emailed with thoughts, ideas and questions about the society.

“Finally I would encourage members to keep up their subscriptions and I hope others who have attended and enjoyed our conference will decide to join us. The cost is modest £20 per annum (c. USD30) cheaper if you join for four years. So please take part and help to develop a dynamic seed science society and to promote our fascination with seeds.

“It just remains for me to say thank you, it’s been great to see you all here. I look forward to us meeting again in the near future and definitely at our future series of meetings. So: Join Up, Join In, and Take Part In Our Society.”

spotlight on recalcitrant SEEDS

The understanding of recalcitrance is, “obstinately disobedient” – or, to cite the definition of recalcitrant in the Oxford Dictionary of English, “having an obstinately uncooperative attitude towards authority or discipline”! In contrast, ‘orthodox’ is defined as, following or conforming to the traditional or generally accepted rules or beliefs of ...”. These terms, introduced into seed biology by Eric Roberts in 1973, have changed their meaning somewhat, most seed scientists automatically equating recalcitrance with desiccation sensitivity, and orthodox seed behaviour with acquisition of the ability to lose water and survive in the dry state.



Left: *Avicennia marina* seeds, newly shed (top R), in hydrated storage (top L, lower R), and with roots emerging (lower L). Right: young seedling.

The crux of the matter is that recalcitrant seeds are metabolically active which is intimately linked up with their being desiccation sensitive. The metabolic state grades imperceptibly from development to germination, and, with few exceptions, recalcitrant seeds will initiate germination at the water content at which they are shed.

In this context, meet the highly recalcitrant seeds of *Avicennia marina*, a pioneer mangrove tree species in estuaries and sheltered bays in the tropical and sub-tropical tidal forests along the African East coast and elsewhere.

Avicennia marina was the first recalcitrant-seeded species on which our research group focused. The seeds will withstand negligible water loss without adverse consequences, losing viability upon slow dehydration when axis water content is as ~1.1 g per g dry mass (~53% wet mass basis).

After the pericarp is sloughed, which happens spontaneously under moist, or even just humid, conditions, the seeds initiate germination at the water content typical of shedding (~2.0 g per g dry mass [67% wet mass basis]) and, within four days, root meristem cells are actively mitotic.

The hypocotyl of the embryonic axis is slightly extended from between the large cotyledons, and within a short time, pre-formed root primordia commence growth – as can be seen in the photograph on the left. In the natural environment, these roots rapidly ‘dig in’ and elevate the seedling to the upright position, as shown in the photograph on the right. Considering two factors – the inundation of the substratum by tidal water movement, and the fact that salinity is elevated in both the mud (soil) and the water – this rapid establishment and elevation of the seedling are seen as survival mechanisms.

Pat Berjak

upcoming MEETINGS

2011. June 13-16. ISTA Germination Seminar and Annual Meeting. Zurich, Switzerland.

The ISTA Germination Seminar will cover topics including the physiology of seed germination and dormancy, influence of seed health on germination, relationship between tetrazolium and germination tests, new technologies in germination testing and seedling evaluation, and statistical tools. The ISTA Annual Meeting provides the opportunity to meet other seed experts and to exchange experiences. The aim of the meeting is to discuss and decide on proposals for changes to the ISTA International Rules for Seed Testing, and business items of the Association, with the international participation of ISTA delegates and representatives from both the seed industry and governments, including experts in seed technology, scientific research and laboratory accreditation.

For more information, follow the links at <https://www.seedtest.org/en/home.html>

2011. July 24-27. 12th International Symposium on Pre-Harvest Sprouting in Cereals. Red Deer, Alberta, Canada.

Pre-harvest sprouting of cereals is a world-wide problem that can affect a wide range of cereals including wheat, barley, rye, triticale, maize, rice, and sorghum. It usually occurs during wet conditions close to harvest time and results in the germina-

tion of the grain when still in the ear or head. Sprouting damage lowers the value of crops to farmers, seed and grain merchants, millers, maltsters, bakers, other processors and ultimately the consumer. As such, it has attracted attention from researchers in many disciplines. Preliminary programme:

- Session 1. Symposium opening.
- Session 2. Agronomic traits, management and effect on pre-harvest sprouting and seed dormancy.
- Session 3 (ISSS feature). Physiology of pre-harvest sprouting, seed dormancy and germination.
- Session 4. Seed dormancy and genes.
- Sessions 5 & 6. Genetics and breeding for pre-harvest sprouting and seed dormancy.
- Sessions 7 & 8. Molecular biology of pre-harvest sprouting, seed dormancy and germination.
- Session 9. Grain and seed quality in relation to pre-harvest sprouting and seed dormancy.
- Session 10. Mapping and other factors related to pre-harvest sprouting, seed dormancy and germination.

For further information, [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/fcd12877](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/fcd12877)

news from around the WORLD

Western Europe and Scandinavia

Wageningen Seed Centre held its 8th Master Class on Seed Technology in the last week of May 2011. Initially, this intensive course was organised every two years, but with a great increase in demand, it has turned it into an annual event. The aim of the course is to broaden the view of the participants to various aspects of seed science and technology and make them think more from a seed specific perspective.

Topics of the course included seed health (pathogen detection and management), new tools for seed vigour analysis (ethanol, Optiseed, and infrared thermography), processes during seed germination and priming (from cell cycle to gene-expression, proteomics, and metabolomics), seed drying, storage, and ageing (drying beads, role of oxygen, and physical predictors), seed dormancy (mechanisms and molecular-genetic dissection), stress (eustress and distress), non-invasive spectral analysis of seed quality (maturity and videometer), automated scoring of germination (image analysis and Germinator program), and guidance in gene database mining.

The four-day course consisted of lectures in the morning and laboratory practicals or demonstrations in the af-



Participants of the 8th Master Class on Seed Technology at Wageningen Seed Centre.

ternoon. In the evenings two lively interactive sessions were held on seed policies and engagement of industry with academia for innovation in seed technology.

To stimulate interactions among lecturers and participants the maximum number of participants is always set at 16. The course was fully enrolled. Participants were from Belgium, Brazil, India, Italy, France, Germany, Netherlands, and Vietnam.

With the broad expertise present in Wageningen, most of the lectures were provided by staff from Wageningen UR. Usually, one or two lecturers are invited from abroad to underline novel developments in seed science and technology. This time lectures and demonstrations were given by Ilse Kranner (MSB-KEW, UK), Johan van Asbrouck (Rhino-Research, Thailand) and Jens Michael Carstensen (Videometer, Denmark). Most participants were from the seed industry, one from a research institute, and two were PhD students.

After four days the participants were tired but very contented with the updates that were provided. All declared that the course was very valuable to them, had broadened their understanding, and that they would recommend the course to their colleagues. Most participants departed with new ideas for possible use in their research or daily routine.

The next Master Class on Seed Technology will be organised in Wageningen from 21-24 May 2012. More information can be obtained at the Wageningen Seed Centre website: www.seedcentre.nl.

Steven Groot and Henk Hilhorst (course directors): steven.groot@wur.nl and henk.hilhorst@wur.nl

North America

The Seed Biotechnology Center's third session of Seed Business 101™ for employees new to the seed industry took place successfully at Keithly-Williams Seeds in Yuma, Arizona on February 14-18, 2011. The 23 participants came from 16 different companies and represented the five main functional areas of the industry (research and development, production, operations, sales and marketing and administration).

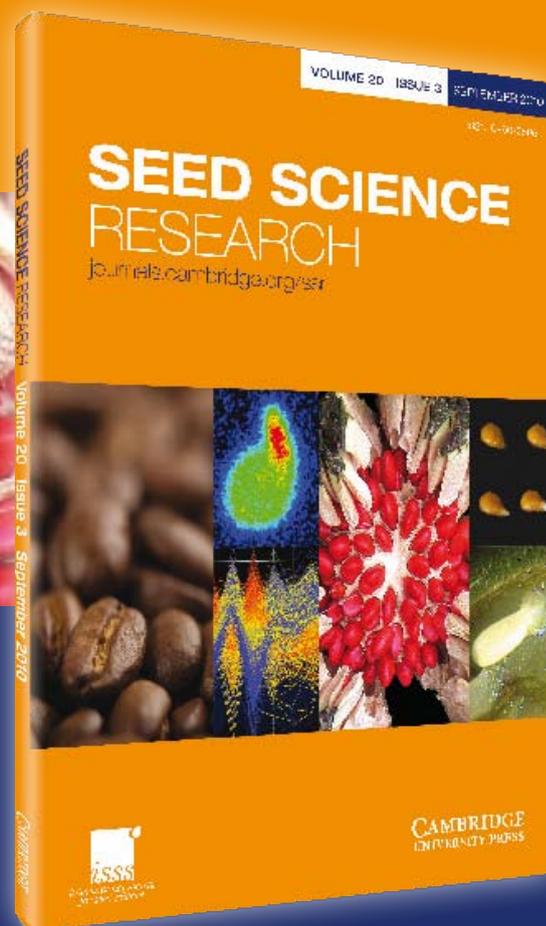
This course provides a rich educational opportunity that introduces all major aspects of the seed business via case studies through a seed company designed for the program. The course is taught by Maurice Smith, Peter Vandenberg, Gary Whiteaker and other distinguished guest speakers. Enrollments are being accepted for the December 5-9, 2011 in Davis, California, and January 16-20, 2012 in Wimauma, Florida. For more information contact Jeannette Martins, jmartins@ucdavis.edu or visit: http://sbc.ucdavis.edu/education/seed_business.html.

note from the newsletter EDITOR

Thank you to all the contributors to this edition of the ISSS newsletter. Please send items for inclusion in the next newsletter (November 2011) to f.hay@cgiar.org or to your regional representative. Contact details for your regional representative, as well as for other members of the ISSS Executive Committee can be found online at www.kew.org/iss.

SEED SCIENCE RESEARCH

<http://journals.cambridge.org/ssr>



Seed Science Research is the leading international journal in the field, with the research emphasis on the physiology, biochemistry, molecular biology and ecology of seeds. Published quarterly, the journal provides a forum for the publication of high-quality original research papers and review articles on the fundamental aspects of seed science.

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minutes of the ISSS ANNUAL GENERAL MEETING April 15, 2011

The ISSS AGM was held on April 15, 2011 at 18h30, in Bahia, Brazil. The meeting was chaired by the President, Professor P. Berjak and was attended by some 40 members, including B. Finch-Savage (President-Elect), several other members of the Executive Committee (F. Corbineau, R. Benech-Arnold, D. Rodriguez) and some representatives (A. Powell, R. de Castro, N. Pammenter, E. Sliwinska, S.-Q. Song). Apologies were received from J. Dickie, and F. Corbineau was acting as Secretary.

1 - The President presented the Agenda which was adopted.

2 - The Minutes of the last Annual General Meeting (June 21, 2010, Salt Lake City, Utah) published in ISSS Newsletter no.18 were adopted.

3 - The President gave her report which is appended to these Minutes, and it was adopted. Pat Berjak, in particular, thanks Bill Finch-Savage for his support over the past 3 years and Fiona Hay for her excellent job in editing the ISSS Newsletter.

4 - The secretary's Report and Treasurer's Report (appended) were presented by the President and adopted. It was pointed out that the number of members of ISSS had stabilized at 240-250 from 2009.

5 - Henk Hilhorst presented the SSR Editor's Report (appended). As the ISSS Journal is a speciality journal, the Impact Factor (IF) will never be very high impact, but the Journal is well cited, the IF being 1.608. Since March 2009, the acceptance rate has been around 10%. Henk Hilhorst asked the members to consider publishing good work in our Journal whenever possible.

6 - Meetings: there was concern that workshops held in 2010 were too close to the Brazil conference and this may have discouraged members from attending the latter. This problem was discussed and a resolution to hold the ISSS conference once every 3-4 years with the "Seed Ecology workshop" and the "Workshop on the Molecular Aspects of Germination and Dormancy" to be held midway between conferences was adopted. Dates for the next meetings would be fixed adopting this rule. The next triennial ISSS Conference on Seed Biology will be held in China. A video presentation on the advantages of the location (Chansha) was given by the Chinese team.

7 - Future meetings:

- The 4th Workshop on Molecular Aspects of Germination and Dormancy will be held in Paris (France) in July 2013, organized by C. Bailly.
- The Next Conference (11th ISSS Conference) on Seed Biology will be organized by Prof. S.-Q. Song, in Chansha (China) in September 13-17, 2014.
- The 4th Seed Ecology Workshop will be held in China in 2013, but the date was then not known. Subsequently this has been agreed as June 2013.
- The 6th International Workshop on Desiccation Sensitivity and Tolerance in Seeds and Vegetative Plant Tissues will be organized by P. Berjak, N. Pammenter and J. Farrant, in Cradle of Humankind (South Africa) January 8-13, 2012.

8 - Various points of discussion:

- Parallel sessions: A discussion started on the use of parallel sessions at the conference and the difficulties for members to attend all the talks they would like to. This issue should be addressed again during the organization of the next conference.
- Students' meeting: Everybody agreed that this session is important, but it has to be prepared in advance, be placed near the start of the meeting and followed by a social function to encourage interaction. The students' meeting may include some discussion on the potential for jobs in seed companies, post-Doctoral grants, exchange, co-tutelle theses, etc.

9 - Memberships: The President requested that all members renew their memberships on time and that the society should try to retain new members who joined for the conference. Some members underlined the importance of receiving notification – i.e. "a reminder", about the need to renew their membership.

10 - ISSS objectives: The Executive Committee will ask the members for opinions on the future directions the ISSS should take.

11 - The President introduced Bill Finch-Savage as new President of the Society, and Françoise Corbineau as President Elect.

The President then closed the meeting.

Françoise Corbineau

President's Report

One of the major aims for the ISSS for the immediately-past triennium, was to close the gap between seed scientists and technologists, as each group has a lot to offer the other. This has now come to fruition, with Session 9 of the 10th Conference bringing together interests and specialities of the ISSS, ISTA and ABRATES. The session is entitled, "Application of seed science to the evaluation and improvement of seed quality", and is largely the outcome of focused efforts between Alison Powell, who represents the ISTA interests in the context of the ISSS, assisted by Françoise Corbineau, and the Conference Organiser, Renato de Castro. On behalf of the ISSS Executive, I have pleasure in thanking them for helping to realise what was expressed as a wish, three years ago.

Brazil is home to a large number of seed scientists and technologists, so it is appropriate that the ISSS hosts this

joint session, Session 9, here in Bahia. From the standpoint of the Executive, I take this opportunity of inviting local participants to become active members of the ISSS – but not only in the short-term. A long-term commitment to membership of the ISSS provides the opportunity to network internationally, as well as staying up-to-date with happenings in the ‘seed world’ through our regularly-published Newsletter. For this, we are pleased to acknowledge the dedicated services of Fiona Hay, who compiles and edits the Newsletter, ensuring that members of the ISSS stay in touch, no matter where in the world they are located.

Another new facet which has been introduced at this Conference, is the special session for Young Scientists. The perception is that perhaps people just embarking on careers as seed scientists and technologists feel somewhat overawed by the participation of experienced ‘old-hands’. We hope to have allayed any such fears by providing an enabling session showing that we established practitioners are eminently approachable, and deeply committed to assisting those at the start of their careers.

Seed Science Research, which was launched in 1990, was adopted as the official journal of the ISSS. The first Editor, Michael Black, handed over to Marc Cohn in 1998 and their successive efforts ensured the high-quality publication ably edited since January, 2009, by Henk Hilhorst. The journal offers an international window on seed science, including in the first issue of 2011 for example, papers by authors from Brazil and Argentina, among others.

The objective of the important triennial Conference of the ISSS is to afford seed scientists and technologists the broadest coverage of topics. In this way, participants have the opportunity to hear what is topical in areas and specialties outside their own, in the form of both invited lectures and research presentations. The Conferences also open channels of communication and chances of cooperation within and across ‘sub-disciplines’ to do with seeds.

Complementing the triennial ISSS Conference, are several other meetings and workshops which enjoy sponsorship by the Society because of their focus – or the dedication of a session or sessions – to seed-related issues. Hence, over the past three years, the ISSS has sponsored the 4th International Plant Dormancy Symposium; the 5th International Symposium on Seed, Transplant and Stand Establishment of Horticultural Crops; and a session entitled, Profiling of Microbial Communities Associated with Seeds, at the 28th International Horticulture Congress; as well as the 12th International Symposium on Pre-Harvest Sprouting in Cereals (taking place in October, this year). Then specific ISSS Workshops were run, including the 3rd Workshop on Molecular Aspects of Seed Dormancy and Germination; and Seed Ecology III: Seeds and Change (at which the 2010 ISSS AGM was convened by President-Elect, Bill Finch-Savage). These various ISSS involvements give an indication of the many and varied interests of members: however, it is a matter of some concern to the Executive that perhaps there are too many seed-related meetings within any three-year period, which could impact negatively on members’ attendance at the major, triennial ISSS Conference. This is a matter which needs to be discussed.

In conclusion then, I must thank Renato de Castro and his local team, as well as the Scientific Committee, for their input and efforts which have made this 10th Conference of the ISSS the success it has been, and last, but not least, Bill Finch-Savage for his support over the past three years.

Patricia Berjak

Secretary’s report, including membership report

The number of ISSS members stands at 240 (on 11 March, 2011), compared with 251 in April 2010. This is consistent with the observation in previous annual reports that overall membership appears to be fairly stable, around 240-260. However, it has been difficult to get an accurate number so far this year. While there are 32 ‘new’ members, who had not paid subscriptions in 2010; 65 members who had paid in 2010, had apparently failed to renew them by March 11 this year. However, it is clear that a number of these are long-standing members, highly likely to renew their membership. In fact, it is reported that some of them have renewed along with their registration for the present conference; but those numbers are not yet available to the Treasurer. Thus, membership in 2011 is likely to exceed 240. Indeed, it is likely to do so by a considerable number. This is because ISSS conferences promote ephemeral increases, as a result of attendees joining in order to benefit from reduced registration fees. Such a short-lived ‘blip’ was a particularly noticeable feature around the Olzstyn meeting in 2008, and may be expected for Brazil in 2011. The challenge for the Society is to retain more of these new members by what it offers them. Previous experience suggests that such temporary increases would be more modest around the Seed Ecology meetings than around ISSS triennial conferences; and there was no discernible increase associated with last year’s Seed Ecology III meeting in Utah. Total numbers of members vs. year are shown in the table below.

Year	No. members	Event
2001	159	
2002	219	ISSS Salamanca
2003	193	
2004	204	Seed Ecology I (Rhodes)
2005	274	ISSS Brisbane
2006	243	

Year	No. members	Event
2007	269	Seed Ecology II (Perth)
2008	383 (250, part year)	ISSS Olzstyn
2009	255	
2010	251	Seed Ecology III (Utah)
2011	240 (to 11 March)	ISSS Bahia

Some idea of underlying stability in the membership is given in the following table, which shows how many, and what percentage of the current 240 individual members have been members continuously for 1, 2, ..., 10 years respectively.

Years continuous membership	No. mem- bers	Cumulative % 'surviving'
1 (since 2010)	208	87
2 (since 2009)	174	73
3 (since 2008)	167	70
4 (since 2007)	100	42
5 (since 2006)	87	36
6 (since 2005)	86	36
7 (since 2004)	66	28
8 (since 2003)	54	23
9 (since 2002)	47	20
10 (since 2001)	38	16

The apparent membership 'half life' of 4 years may reflect in part the 4-for-3 year subscription deal, though this has not been available for the whole life of the society. Beyond that, attrition has been relatively slow; and 38 current members have been so continuously since the Society was formed in 2001. These numbers are subject to revision (upwards) when the true picture for renewals in 2011 becomes available.

A major benefit of ISSS membership used to be reduced subscription prices for *Seed Science Research*, the official journal of the society, now published by Cambridge University Press. Frustratingly there has again been no apparent progress on this over the last year; and it has still not been possible to finalise a satisfactory deal with CUP. The Executive Committee still awaits communication from Cambridge University Press, making their position clear on this matter; following representations made by the Editor in Chief of *Seed Science Research*, the Treasurer and the President Elect during Autumn 2009.

Another benefit of ISSS membership is a 20% discount on books published by CABI. This continues and CABI no longer need ISSS members to quote a member reference number when ordering by phone or email. CABI Customer Services Department say that members will now only need to let them know that they are ISSS members and they will receive a 20% discount right away. More details on these offers can be found on the ISSS website on the 'Membership' page. Feedback from members attempting to obtain this discount would be welcomed by the Executive Committee.

The website continues to be a concern of the Executive Committee, and there is an agenda item devoted to it at the AGM. Following discussion of the topic at the 2010 AGM in Salt Lake City, offers of help with maintaining and upgrading the web-pages came from two members (names supplied on request); and another member offered helpful suggestions regarding the 'Links' page, which is woefully in need of enhancement, for example. However, the opportunity to take up those offers has not yet been taken. Because of the current hosting arrangements on RBG Kew's web server, the Secretary is the only person practically able to carry out *ad hoc* editing, as he has access to Kew's servers. His approach to this, because of other activities, is largely reactive and subject to delay. Discussions with Kew's Webteam reveal that it would be possible to take a copy of the site away to another location to work on it, and thus be more pro-active, before returning it to Kew; so long as there was little change to the overall size of the site. It was also clear that they would need to know and approve any significant changes we might propose for structure, function and perhaps appearance, before they could commit to hosting a significantly enhanced site. The mailing list seems to be working reasonably well. However, while regular updates of the membership list pass between the Treasurer and the Secretary, onward (manual) updating of the mailing list is, by virtue of the way it works, one of the Secretary's more tedious tasks.

John Dickie, 7 April, 2011

Treasurer's report for 2010-2011

We supported three meetings this year, including the Society's flagship triennial conference. Bank interest rates remain at historically low levels, so interest on our capital remains very low. A substantial number of new memberships and renewals have been made together with registration for the Brazil meeting, but these payments do not yet appear in our accounts. Nevertheless, the Society made a small surplus for the year and our finances remain healthy.

Income and expenditure for the period 01 April 2010 to 31 March 2011:

INCOME	£	EXPENDITURE	£
Subscriptions	5037.86	Charitable payments	
		Seminar on seed microbiology, IHC 2010, Lisbon	600.00
		10 th ISSS Conference, Bahia	2832.00
		12 th International symposium on pre-harvest sprouting	600.00
Bank interest	12.00	Credit card and other bank charges	392.48
Total income	5049.86	Total expenditure	4424.48
Excess income over expenditure			625.38
Brought forward from previous year			33,356.99
Balance carried forward			33,982.37

KenThompson

Seed Science Research: Editor-in-Chief's Report

It is now almost 3 years that I have been the Editor-in-Chief of *Seed Science Research*. A number of changes related to SSR have now been effected. Most importantly, we have implemented Editorial Manager as an electronic means of submission and reviewing of manuscripts, as well as the centre of editorial activities. Editorial Manager considerably shortens the processing time of manuscripts. Papers accepted for publication are now published on-line ahead of allocation to a printed issue of SSR and may then be cited by doi. Since this change, the average turnaround time for papers (from CUP receipt to online publication) is **32 days**. This is an extremely positive figure and means that authors are seeing their work published quickly!

Despite these important changes, as well as full support of our publisher (Cambridge University Press) in terms of editorial back up and advertising, the Editorial Board is struggling hard to attract sufficient numbers of acceptable manuscripts. Many of the submitted manuscripts are of insufficient quality whereas a large portion of manuscripts is not within the scope of *Seed Science Research*. Since the introduction of Editorial Manager, in March 2009, the acceptance rate has been around 10%.

As indicated in last year's report, there is consensus among the editors and publisher to adjust the Aims and Scope of the journal to the many new developments in the seed community. In 2010, the Editorial Board agreed on including aspects of seed research related to seeds as commodity, changing the official Aims and Scope of *Seed Science Research* to:

"Seed Science Research is an international journal that publishes original papers, as well as reviews and opinion papers, dealing primarily with the fundamentals of seed research with emphasis on the physiology, biochemistry, molecular biology and ecology of seed development, dormancy and germination. The importance of seeds to propagation, food, biofuel and biodiversity is of increasing interest and therefore submissions on seed genetics, seed biotechnology, seed treatment and seedling establishment are especially encouraged if they are novel and 'seed driven'."

I would like to ask all ISSS members to advertise for our journal as much as possible, particularly now with the broadened scope. We are particularly interested in reviews, since they are generally well cited. Since SSR is a specialty journal it will never attain very high impact factors, but it has a solid reputation of publishing high quality papers that are well cited. For your information some statistics can be found in the Annex below.

Henk WM Hilhorst, April 2011

SSR Report ANNEX

Impact Factor Report:

The 2009 Impact Factor values were released in June 2010. *Seed Science Research* showed an increase, with the 2009 value now sitting at 1.608, which represents an 8.5% increase on 2008.

Table 1: Impact factor trend 2000-2009.

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1.772	1.053	1.013	1.164	1.019	1.892	2.085	1.825	1.482	1.608

Ranking in the Plant Sciences Category: 61st out of 172.

Five-year Impact Factor Calculation:

The five-year impact factor (5IF) was added as an additional feature after the release of the 2007 Journal Citation Report and is calculated upon the number of citations made in any given year to papers published in the Journal within the five consecutive years immediately preceding, divided by the total number of eligible articles published. The 2009 SSR 5IF was 2.337.

The table and lower graph show the usage statistics of SSR through the Cambridge Journals Online website:

Table 2: CJO usage statistics Jan 2009-June 2010.

	Abstact views	TOC views	Fulltext views	HTML views	PDF views	Home page views
Totals	221,109	67,334	33,813	1,050	32,763	45,569

