



*international society
for seed science*

iss newsletter

number 6

June 2004

● **iss activities**

The period since the publication of the last Newsletter has been an active one for the Society. There have been two highly successful meetings sponsored by the ISSS and two with which the Society has been closely associated. Reports appear later in this Newsletter. And there has been a change in the Secretaryship of the Society: more below. And finally, the people down (or across – depending on your viewpoint) in Australia have been busy getting things sorted out for the next International Seed Workshop: again, more below.

● **election and officers**

Kent Bradford has now come to the end of his term as Secretary and as you will all know the Society has just held a ballot to elect the new Secretary. The two candidates were Karen Koster and Paul Beuselinck. Karen received the majority of votes and will assume the duties of Secretary by July 1. Paul's willingness to run for the position, even though he only recently joined the ISSS, is admirable and he is encouraged to stay involved in ISSS matters. Only about one-third of the Society's members voted, which is almost as disgracefully low as the recent elections to the European Parliament! So all you democrats (note the small 'd') out there – do better next time!

The Society's thanks and gratitude go to Kent Bradford for his work as first Secretary of the ISSS. He served more years than was strictly required, during which time he put the Secretaryship on a very sound footing and established procedures for subsequent holders of the position to follow. Thanks, Kent: now you can get back to science full time! And our thanks go to Karen for accepting the post; we look forward to her tenure in the position.

And in case you've forgotten the list of officers now is:

President, Ralph Obendorf (rlo1@cornell.edu)

President-Elect, Derek Bewley (dbewley@uoguelph.ca)

Secretary, Karen Koster (kkoster@usd.edu)

Treasurer, Ken Thompson (ken.thompson@sheffield.ac.uk)

Contact them if you have any queries or suggestions.

● **ISSS Annual General Meeting. 25 May, 2004, Wageningen, The Netherlands.**

Minutes

The Membership meeting of the ISSS was called to order by President-Elect Derek Bewley at 12:20 pm in the Wageningen International Conference Center, Wageningen, The Netherlands. The meeting was held in conjunction with the ISSS-sponsored Workshop on Molecular Aspects of Seed Germination and Dormancy. Forty-two members were present.

Derek Bewley summarized the minutes of the previous membership meeting in Cambridge, U.K., in April 2003. This included the Treasurer's report, discussion of the Wageningen and Brisbane workshops, support for a Seed Ecology meeting in Greece, discussion of the need to elect a new secretary to replace Kent Bradford, and a motion on naming of special lectures that was discussed but not passed. As the minutes had not been previously distributed to the membership, no motion was taken on their acceptance.

As Treasurer Ken Thompson was not present, Kent Bradford presented the Treasurer's report (attached). The ISSS currently has about 180 members, many of whom have taken advantage of the opportunity to register for four years for the price of three. As a result, the balance of funds is quite high, but will need to be utilized over the next 3 to 4 years. The ISSS provided support for five meetings during 2003-04. Reports on some of these meetings have appeared in the December 2003 ISSS Newsletter and will appear in the June 2004 Newsletter. Marc Cohn moved to accept the Treasurer's report, which was seconded by Daniel Cantliffe and approved by unanimous voice vote.

Kent Bradford presented the Secretary's report. Based upon the ballots counted to date, it appeared that Karen Koster would be elected as the new ISSS Secretary. A final count of the votes would be made after another week and the results would be announced. Transfer of duties would take place immediately thereafter.

Derek Bewley announced that he had agreed to serve as primary liaison from the ISSS to the organizers of the Workshop on Seed Biology in Brisbane in May 2005. Steve Adkins had presented an update on the planning for the meeting and an overview of the Brisbane area just prior to the convening of the ISSS membership meeting. Plans are on track for an excellent Workshop with a special emphasis on Australian native seeds.

Derek Bewley moved that the invited plenary lecture presented at the triennial ISSS Workshop be named the A.M. Mayer Plenary Lecture in honour of his role in organizing the first international workshop on seeds and his contributions to seed science. This overview lecture on seed biology will be presented by a well-recognized and respected seed researcher chosen by the local organizing committee of the ISSS Workshop. This motion was seconded by Steve Adkins and approved by unanimous voice vote.

Derek Bewley introduced a second motion that an invited lecture be instituted at the triennial ISSS Workshop called the Michael Black Founders Lecture in recognition of his efforts in establishing the ISSS. This lecture on an innovative area of research in seed biology will be presented by an establishing researcher whose research is novel and pioneering. The presenter will be chosen by the local organizing committee of the ISSS Workshop. Kent Bradford moved to accept this proposal, which was seconded by Bill Finch-Savage and approved by unanimous voice vote.

Derek Bewley introduced a notice of motion that the Executive Committee of the ISSS be empowered to honour those who have made exceptional contributions to the Society by conferring upon them an Honorary Life Membership. This honor may be bestowed on not more than one member per year and may not be awarded to current members of the Executive Committee. This motion will be introduced and acted upon at the next membership meeting.

Marc Cohn (Editor) presented a report on *Seed Science Research*, the official ISSS journal. He noted that the journal had received a 50% increase in submissions this year. The proceedings of the most recent Desiccation Workshop appear in the next issue. The addition of Associate Editors has reduced the time required for review and processing. The acceptance rate is approximately 30%, and the "impact factor" is between 1 and 2, but specific older issues have much higher impact factor ratings. Overall the journal is serving the seed science community well.

The members of the Society present expressed their thanks to Kent Bradford for his excellent service as its first Secretary.

There being no further business, the meeting was adjourned at 12:35 pm.

Treasurer's Report for 2003 - 2004

Income and expenditure for the period 01 April 2003 to 31 March 2004

INCOME	£	EXPENDITURE	£
Subscriptions	3689.00	Charitable payment 1: Workshop on "New Developments in Seed Quality Improvement", Poland	500.00
Royalties - <i>Seed Biology: Advances and Applications</i>	273.97	Charitable payment 2: Desiccation Workshop, South Africa	1000.00
Interest	128.47	Charitable payment 3: 2003 UK Seed Biology meeting, NIAB, Cambridge	250.00
		Charitable payment 4: 8 th Seed Biology Workshop, Brisbane	1000.00
		Charitable payment 5: Plant Dormancy Symposium, Wageningen	500.00
		Credit card and other bank charges	110.53
Total income	4091.44	Total expenditure	3360.53
Excess income over expenditure	730.91		
Brought forward from 2002-2003	13663.51		
Balance carried forward 31 March 2004	14394.42		

The Society's subscription income fell in 2003-04 because many subscriptions had already been received in the previous year under the '4 years for the price of 3' offer. Investment income rose since £10,000 was transferred to a high-interest account. The Society made substantially larger charitable payments than in 2002-03.

news from around the world

Paris, France

The current renovation of the Jussieu campus in Paris has led the Laboratory of Applied Plant Physiology (Laboratoire de Physiologie Végétale Appliquée) to move to Ivry-sur-Seine, very close to Paris. The address is Laboratoire de Physiologie Végétale Appliquée, Université Pierre et Marie Curie, site d'Ivry, Bâtiment B, 2ème étage, boîte courrier 152, 4 place Jussieu, 75252 Paris cedex 05, but the previous address can continue to be used. The phone (+33.1.44 27 59 26/87), the fax (+33.1.44 27 59 27) numbers and the e-mail addresses of Daniel Come and Françoise Corbineau (come@ccr.jussieu.fr; corbi@ccr.jussieu.fr) are not changed. The laboratory will return to Jussieu in about 4 years. After Daniel Côme retires in July 2004, the laboratory will continue to develop its research on seeds under the guidance of Françoise Corbineau. Information concerning its activities can be found on the web-site: <http://lpva.snv.jussieu.fr> (in French and in English).

Brazil

Dr. Claudinei Andreoli, a seed physiologist researcher, has moved into a new position at Embrapa Soja, Cx. Postal 231, Londrina, PR, Brazil, email: andreoli@cnpso.embrapa.br. His duties will be devoted to research and studies on the genetics and physiology of germination and pre-harvest sprouting (PHS) in wheat. Some very dormant lines that are resistant to PHS have been identified and will be used in his studies.

● on the move

It is announced above that the Côme/Corbineau laboratory is moving a few kilometres westwards in Paris while the Jussieu laboratories are refurbished; but the lab will be back on the left bank in 2008. The present move, however, almost coincides with Daniel Côme's retirement, which certainly deserves comment in this newsletter. Daniel, of course, has been a guiding light in seed science for many years, starting from well before he was Director of the CNRS Laboratory for Post Harvest Physiology in Meudon, just outside Paris, to the time when he established the Laboratoire de Physiologie Végétale Appliquée, in Université Pierre et Marie Curie (Paris 6) at Jussieu in Paris. Here, among streets redolent with the tradition of French and European biological scholarship (les rue Linné, Cuvier, Tournefort, Jussieu, etc), together with Françoise Corbineau, he built a team working on many aspects of seed biology. The Jussieu lab has a distinct character given by its occupation of the boundary of biology with agriculture/horticulture/food science as well as its research in basic seed science. This was due, to a large measure, to Daniel's perspective of the contribution that seed biology can make to problems faced by growers and food technologists. How many visitors to the lab formed the distinct impression that in the lunchtime French conversation the two most common words were 'semence' and 'manger'! The Jussieu laboratory is famed for its hospitality, prompted by Daniel's infectious warmth, friendliness, and enthusiasm for seeds that he passes on to all his colleagues. All of this was felt by the many visitors from round the world who spent time in the lab, to carry out a piece of research or just to talk about seeds.

Daniel, a stalwart of all conferences on seeds, especially of the International Seed Workshops, was the natural choice as first President of ISSS at the Society's foundation in 1999. He helped to guide the Society through those early years, setting the pattern for its success. We thank him for all this and wish him well in his retirement, though we suspect that he will not remove himself completely from the world of seed science. Bonne retraite, Daniel! Profites-en bien!

● did you know?

ISSS members probably think that seeds are objects to put into the earth, in Petri dishes or to help them to get research grants. But back in history they were more important than all of these: they were myth, mystery and human creation itself. To the Maya of Central America seeds were the source of all human life. In the Mayan creation story the first attempts at making humans out of mud, wood and flesh were all unsatisfactory so the decision was made to use maize grains. Yellow and white grains were ground nine times in water to make the dough that became the human flesh – and then, with a touch of divine blood – became human beings, perfect in every way. Maize grains, of course, had a central importance in Central American (e.g., Aztec) cultures, and there were several gods devoted to maize. Another species that featured in the religions was *Amaranthus* whose seeds were used in various rituals. One of these involved mixing the seeds with human blood to make a dough which was then shared among officials and priests. The ritual was perceived by the conquering Spaniards to be too close to that of the Catholic Mass: *Amaranthus* seeds fell into disgrace and were prohibited for many years. I am informed by my Mexican advisers that the contempt the Spaniards felt for this seed still remains in the common and somehow offensive Spanish idiom "me importa un bledo", literally "I don't give an amaranth seed" meaning "I could not care less".

Over in Europe there were plenty of myths that featured seeds. One of the best known Greek myths is about Persephone who ate the pomegranate seeds offered to her by Hades. The gods punished her

by forcing her to spend half of each year in the underworld, an act that so outraged Persephone's mother Demeter (Ceres) that she caused it to be winter during her daughter's exile, when no crops would grow. One myth that might appeal to today's seed researcher is this: Eros disobeyed Aphrodite by forming a 'relationship' with Psyche, and Aphrodite therefore sought out Psyche to make her suffer. On finding her, Aphrodite dumped a large pile of tiny seeds in front of the unhappy Psyche and ordered her to separate them -- and to finish the job by sunset! Now some readers of this Newsletter might find themselves in a similar situation so here's a tip. Looking at the seeds, Psyche knew she had an impossible task. It would take many years to separate so many seeds. But a large colony of ants, captivated by the girl's beauty, decided to help her, and they soon had the seeds sorted into separate piles. So keep on the right side of the Entomology department!

● seed puzzler

The intensity of thought generated by the last puzzler was so great that members were stupefied into silence. Or maybe they're all still working on it. Anyhow, there's now a break so that they can catch their breath and regain composure.

● books

CABI publications. All ISSS members receive a 25% discount on books on seeds published by CABI. Currently on the ISSS website there is a pdf listing all books available (referred to as the 'ISSS Book Titles' on the website), another separate pdf of the order form (referred to as 'ISSS Book Order Form' on the website) and an ISSS Price list 2004.pdf. Remember that ISSS members can subscribe to *Seed Science Research* at a substantial discount.

● isss meetings reports

Seed Ecology 2004. 29 April-4 May, Rhodes Island, Greece.

The Society recently sponsored the first ever (we think!) major international meeting on Seed Ecology, which took place at the Convention Centre of Rodos Palace Hotel, Rhodes Island, Greece, from April 29 - May 4, 2004. Generous support was also provided by The University of Athens and the Mediterranean Agronomic Institute of Chania, Greece. The organisers (Costas Thanos - University of Athens, and Ken Thompson - University of Sheffield) are also extremely grateful to the British Ecological Society, whose Student Support Scheme provided free registration for ten students.

Participants were fortunate to hear excellent and inspiring talks from six invited speakers:

The seed size synthesis: a review of the ecological correlates of seed size

Angela Moles, Macquarie University, Australia

Long distance dispersal – in pursuit of the unknowable

James Bullock, NERC Centre for Ecology and Hydrology, Dorset, UK

The ecology of soil seed banks: from the applicable present to a fruitful future

Renée M. Bekker, University of Groningen, The Netherlands

Biogeography and phylogeny of seed dormancy

Carol and Jerry Baskin, University of Kentucky, USA

Seed ecology: its biogeographical and ecological relevance

William Bond, University of Cape Town, South Africa

Seeding the woods from the trees: new views on seed source and dispersal limitation in tropical forests

Jim Dalling, University of Illinois, USA

The conference was a resounding success, with 63 talks and 96 posters from 180 delegates (61 of them students) originating from 33 countries all over the world. Lectures and poster sessions covered four full working days with an intervening full-day excursion (by coach) around the island. A frequent comment was: "Why has nobody ever done this before?" Whatever the answer to that question, everyone was in agreement that it should certainly be done again. The next (2nd) ISSS Seed Ecology

Meeting will take place at The University of Western Australia, Perth, in September 2007. For more information please contact Dr. Kingsley Dixon, kdixon@kpbq.wa.gov.au.

Certificates of excellence for outstanding contributions (oral or poster) were awarded to the following students: **Esther R. Chang** (The Netherlands); **Rachel E. Gallery** (USA); **Laila M. Karlsson** (Sweden); **Karin M. Kettenring** (USA); and **Francisco Rodriguez** (Spain). Each awardee received a book on seeds (books kindly provided by CAB International, Cambridge University Press, CSIRO and NRC Canada).

For more details of the Rhodes meeting, including the full Scientific Programme and the Book of Abstracts as well as an extensive photo gallery, see <http://www.biology.uoa.gr/SeedEcology2004.htm>.

Molecular Aspects of Seed Germination and Dormancy. 23-24 May, 2004, Wageningen, The Netherlands.

The program for this Workshop was organized by J. Derek Bewley, University of Guelph, Canada, and the on-site organizer was Henk W.M. Hilhorst. It preceded the Third International Symposium on Plant Dormancy. The Workshop was the first of its kind to be offered by the ISSS; as such it was an experiment, in that each of the international cast of invited speakers was allotted 45 minutes for her/his presentation, followed by a 30-minute discussion period, during which some members of the audience chose to make a 5-minute presentation of relevant ideas and results. The speakers were asked not only to present their research results, but also their ideas, and to be speculative and provoke controversies. This led to lively discussions and debates, which often more than consumed the time available.

The program was opened by **Henk Hilhorst** who gave an erudite overview defining germination and dormancy, as a framework for the molecular aspects that followed. The session on the first day was dedicated to the molecular aspects of seed germination. **Mike Holdsworth** (UK) spoke on the transition in molecular events that occur during and following germination, and pointed out the importance of transcriptional control, while also demonstrating that post-transcriptional regulation has to be considered. **Paolo Costantino** (Italy) provided information on the interaction between genes in the switch from dormancy to germination, and in particular piqued the audience's curiosity with suggestive evidence that there is a protein signal transported from the parent plant to the seed that modifies its response to germination-inducing stimuli. **Estela Sánchez de Jiménez** (Mexico) explained the role of stored messages in germination, and how these are selected in the cell in the presence of particular elongation factors. She also expanded on the potential role of insulin in enhancing protein synthesis, and its interactions with cellular factors involved in this event. **Jorge Vásquez-Ramos** (Mexico) gave an explanation of key components involved in the cell cycle, and how the application of plant growth regulators affect the expression of specific cyclins. He posed several challenging questions about the role and fate of cyclins during seed aging and treatments. **Kent Bradford** (USA) closed the first day's talks with an account of the many enzymes that modify the embryo-restraining structures in seeds, and pointed to the potentially key role of sugar-sensing genes and kinases in germination. **Kathryn Steadman** (Australia) and **Bruce Downie** (USA) were Chairs of the sessions.

The second day incorporated two sessions on seed dormancy, led off with a presentation by **Leonie Bentsink** (The Netherlands) in collaboration with **Maarten Koornneef**. She presented QTL mapping data that demonstrated the existence in *Arabidopsis* of several loci that control seed dormancy, the most significant of which was identified and cloned. The characteristics and expression of this *DOG1* (Delay of Germination) gene (function as yet unknown) was detailed, as was the power of various related mutants in understanding the nature of dormancy. **Mike Foley** (USA) also presented QTL data that are vital to an understanding of seed dormancy genes in wild oat and in the more tractable genome of rice. These approaches are proving to be useful in our understanding of both embryo dormancy and that imposed by the surrounding structures. **Ian Graham** (UK) demonstrated an interesting link between dormancy and gene expression associated with fatty acid catabolism,

gluconeogenesis and sugars, and how this can be influenced by the presence of abscisic acid. **Eiji Nambara** (Japan) continued the theme of abscisic-acid-influenced dormancy, and particularly how clustered genes are influenced similarly by this regulator. He detailed how there are changes in expression of genes containing elements responsive to abscisic acid, and of genes that control its degradation, during release from dormancy. **Dominique Job** (France) illustrated the use of proteomics in following changes in translation products during germination. Data were presented supporting the possibility that only conserved messages are required during germination of *Arabidopsis*, an interesting prospect that engendered considerable debate. Chairs for the dormancy sessions were **Roberto Benech-Arnold** (Argentina) and **Gerhard Leubner-Metzger** (Germany).

A general consensus was that the Workshop format was a success, and that consideration should be given to holding another in the relatively near future, perhaps including some speakers whose interests lie in the molecular aspects of dormancy and germination in organisms other than plants.



Speakers and Chairpersons at the meeting. back row left to right: Mike Holdsworth, Paolo Costantino, Eiji Nambara, Mike Foley, Maarten Koornneef, Ian Graham, Jorge Vásquez-Ramos, Dominique Job, Leonie Bentsink, Bruce Downie; and front row, left to right: Estela Sánchez de Jiménez, Derek Bewley, Henk Hilhorst, Roberto Benech-Arnold. Missing are speaker Kent Bradford and two of the session chairs, Gerhard Leubner-Metzger and Kathryn Steadman.

Third International Symposium on Plant Dormancy. 25-28 May, 2004, Wageningen, The Netherlands.

Though not strictly an ISSS meeting, the Society was closely associated with this symposium. The Symposium brought together 121 scientists of 20 nationalities in the Wageningen International Congress Centre to discuss progress in the field of plant dormancy. About 75% of the registrants were from a seed background. One of the main objectives of the Symposium is to initiate and encourage 'cross-talk' between the different disciplines. The lively discussions within and outside the conference room showed that this objective was indeed attained. Many of the presentations discussed research progress in the molecular genetics of dormancy, and it is clear that the field of dormancy has come of age and is quickly catching up with other plant science disciplines. Transcriptomics, proteomics and functional gene analysis have already led to exciting new views of dormancy and there is promise of much more to come. It was also encouraging to see that 'classical physiology' is back. There is now a general notion that molecular studies can only be meaningful when the system under investigation is physiologically and morphologically well defined and characterized. This cross-fertilization of the molecular and physiological holds great promise for the near future. In the summary of the Symposium, Marc Cohn phrased this as: "One foot in the past and one foot in the future".

Fruit and Seed Morphology Workshop. 1-3 March, 2004, Brisbane, Australia.

This Workshop was run by the University of Queensland Seed Biology Group at the University's St. Lucia campus, Brisbane, Australia. The Workshop presenter was Dr Wolfgang Stuppy (seed morphologist) from the Royal Botanic Gardens Kew, United Kingdom. The workshop consisted of two lecture programs providing an introduction to the morphology of fruits and an introduction to the morphology and anatomy of seeds.

The first lecture program focused on the morphology and development of the different fruit types and covered aspects such as the difference between gymnosperm and angiosperm fruits, the criteria used

for the morphological classification of fruits and a description of the different fruit forms found. The second lecture program was an introduction to the morphology and anatomy of seeds and included a discussion of the development of the angiosperm ovule, the different types of ovules, internal seed morphology, seed coat anatomy, seed appendages and seed dispersal.

The workshop was an outstanding success and provided an invaluable introduction to the theory behind fruit and seed morphology and development for the 30 attendees from eastern Australia. The workshop was the first of several that may be anticipated in the coming years as a large Kew Gardens Millennium Seed Bank Project initiative gets underway in eastern Australia.

iss upcoming meetings

8th International Workshop on Seeds, "Germinating New Ideas". 8-13 May, 2005, Brisbane, Queensland, Australia.

The venue for the 8th International Workshop on Seeds is the five-star Sheraton Brisbane Hotel, which is centrally located in the heart of Brisbane. This workshop will cover a diverse range of topics of interest to those in seed science research as well as those involved in the Seeds Industry. This five-day program will include four days of sessions, a field day and oral and poster sessions.

Topics covered include: Seed Development; Seed Germination and Dormancy; Seed Desiccation and Conservation; Seed Ecology; Seed Biotechnology; and Seed Biology of Australian Native Species.

Many and varied sponsorship opportunities are available and full information regarding these packages and exhibition opportunities can be found on the web at www.seedbio2005.asn.au.

Meet with your colleagues at the exciting social functions and plan to take advantage of the many and varied pre- and post-touring opportunities that will be offered.

To receive further information on this workshop, please contact the event managers, Organisers Australia at info@seedbio2005.asn.au. Web address - www.seedbio2005.asn.au.

other meetings and courses

Fifth Australian Workshop on Native Seed Biology. 21-23 June, 2004, Brisbane, Queensland, Australia

Brochure and registration form is available on the web at:

<http://www.acmer.com.au/training/attachments/NativeSeedBiologyBrochure.pdf>

Draft program is available on the web at:

<http://www.acmer.com.au/training/attachments/DraftNativeSeedBiologyProgram.pdf>

Further details: Ms. Megan Whitta: Tel: +61 7 3327 4655; Fax: +61 7 3327 4574; Email: acmer@uq.edu.au.

13th International Workshop on Plant Membrane Biology. 7-10 July 2004, Montpellier, France.

The 13th International Workshop on Plant Membrane Biology will provide an extensive overview of front-line research in the field of membrane transport in the context of the functioning of the cell and plant. Sessions will be devoted to cell signalling and membrane trafficking, plant-pathogen interactions, adaptation to environmental stresses and plant growth and development. There will be specific emphasis on breakthroughs and emerging concepts in fields such as membrane proteomics and structural biology. Technological advances and bottlenecks will be discussed in specific and interactive round-table sessions. For more information, see: <http://www.montpellier.inra.fr/PMB>.
Contacts: Christophe Maurel (maurel@ensam.inra.fr) and Hervé Sentenac (Sentenac@ensam.inra.fr).

15th International Conference on Arabidopsis Research. 11-14 July, 2004, Berlin, Germany.

For more information, see <http://www.arabidopsis2004.de/>. Check The Arabidopsis Information Resource (TAIR) website (www.arabidopsis.org) for future meetings in this series.

American Society of Plant Biologists, Plant Biology 2004. 24–28 July, 2004, Orlando, Florida, USA.

The 2004 Annual Meeting of the American Society of Plant Biologists will be held at Disney's Coronado Springs Resort & Convention Center in Orlando, Florida. For information, see the ASPB website <http://www.aspb.org/>.

Federation of European Societies of Plant Biology (FESPB) 14th Congress. 23-27 August, 2004, Krakow, Poland

For further information, see: <http://www.zfr-pan.krakow.pl/konf/>.

18th International Conference on Plant Growth Substances. 20-24 September, 2004, Canberra, Australia.

Contact Jake Jacobsen (John.Jacobsen@csiro.au), Chairman, Organizing Committee, Plant Industry, CSIRO, PO Box 1600, Canberra, ACT 2601 Telephone: 61 2 62465464 Fax: 61 2 62465000, or see the web site <http://www.conlog.com.au/ipgsa2004>.

Third Plant Genomics European Meeting (Plant GEMS 2004). 22-25 September, 2004, Lyon, France.

Plant GEMS is an annual meeting series focusing on plant genomics that is held in various European countries. The first meeting took place in Germany (Berlin, October 2002), and the second was held in the United Kingdom (York, September 2003). The third is being organized in Lyon, 22-25 September, 2004. The detailed scientific program and the registration form are available at www.plant-gems.org. The Foundation Rhone-Alpes Futur, a non-profit organization, is in charge of the registration.

For all practical issues of the meeting, please contact Monique Loyer (plantgems2004@genoplante.com).

For scientific correspondence, please contact Patricia Ragueneau (patricia.ragueneau@bayercropscience.com) or Dominique Job (dominique.job@bayercropscience.com). We are looking forward to welcoming you in Lyon.

Please register now.

Seed Biology, Production and Quality. 2-3 February, 2005, Davis, California, USA.

The Seed Biotechnology Center at the University of California, Davis, is offering a 2-day short course on seed biology, production and quality. The course is targeted toward professionals in the seed industry, in education or in extension, or anyone who needs to know more about seeds. The emphasis is on horticultural species, although agronomic and native species are also included. For more information, contact sbc@ucdavis.edu.

● seed science research –spring 2004 update

Editor Marc Cohn reports that SSR is having a banner year, so far. The journal is on track to receive 50% more submissions this year than previously. Of the manuscripts received in recent years, the acceptance rate is 33%; one-third of the papers are declined after peer-review and one-third declined without peer-review, usually because the subject matter is outside the scope of the journal. If authors are unsure as to whether their paper is within the scope of the journal, the editor would be pleased to review the abstract of the work, via email, before submission of the full paper.

Manuscript turnaround time has been reduced during the last year with Kent Bradford and Derek Bewley as new decision editors, in addition to our stalwarts, Henk Hilhorst and Ken Thompson. Our very best papers have been accepted 2-8 weeks after receipt. Unfortunately, many submissions that

eventually are published require extensive reviewing and editorial work, and this can greatly increase the time between receipt and decision. Authors can help themselves significantly by having colleagues perform an 'in-house' peer review prior to submission of their papers to the journal. Authors can also save time by submitting their work electronically, as e-mail attachments.

As a specialty journal, published quarterly, our 'impact factor' cannot be expected to be as high as the general interest, monthly plant journals. However, after a 2-year lag, the average citation rate for SSR manuscripts is quite high. The impact factor for 2001 papers is 3.2; for 2000 papers it is 3.6, rising into the range of 6.8 to 16.3 for earlier years (as of 17 May 2004). The 'shelf-life' of our published papers is very good, with frequent current citations of work published all the way back to Volume 1.

The June issue will include the proceedings of the most recent International Workshop on Desiccation Tolerance, guest-edited by Pat Berjak. Dr. Cohn looks forward to receiving new manuscripts from all ISSS members, and working with authors to get their best work published in SSR.

● and finally

This item was in the last Newsletter, and the one before and the one before that, but it is still worth repeating: the ISSS is **your** society so please involve yourself in it. If you have any suggestions, complaints, comments, etc., send them along to your Officers. They want to run the ISSS the best they can to satisfy the needs of its members. And remember to inform this newsletter about seed science in your lab, country, region, etc., including any news about meetings or workshops. Send your news for inclusion in the Newsletter to the editor: Michael Black (michael.black@kcl.ac.uk).