



on the mark

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Farmers need access to GM –Former SAFF president



MPBCRC CEO Bryan Whan and former SAFF President John Lush at the MPB Annual Research Meeting in July

Former South Australian Farmers' Federation President John Lush called for farmers and scientists to work together to ensure the uptake of genetically modified (GM) crops.

In his address to the Molecular Plant Breeding CRC Annual Research Meeting in August, Mr Lush explained that GM was vital to keeping Australian farmers competitive.

"At any one time I could have \$1.5 million worth of grain in the field. A couple of rainfall events and much of that is lost. The potential of GM to help farmers minimise these losses is enormous."

Mr Lush suggested that with large overheads, reliance on Australia's fickle climate and the rapid growth of agricultural industries in developing countries, the smaller family farm could be at risk.

"Australia's competitors are not hesitating to adopt GM technologies which they believe will help increase production," Mr Lush said.

"When I see China spending 52% of its GDP on infrastructure, and Australia spending 45% on social security, I wonder who has it right."

"India plans to increase its GM capability five-fold in the next few years – that worries me."

Mr Lush said that the debate over GM crops needs to be moved forward, and to be based on fact.

"It's a fear of the unknown that really is driving a difficult debate, and I'm tired of that."

On the health and safety of GM he said, "200 people per year die from using potting mix in their garden, yet not one death or adverse health event from GM has occurred ever."

While a number of groups opposed to GM crops have cited possible market restrictions as reason for holding off on GM, Mr Lush says these fears are misplaced.

"The perception is that Japan doesn't want GM canola, but they're still buying it from Canada," he said.

"You have to be a risk taker to be a farmer. If you don't take a risk, you won't get a reward."

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From the CEO

Sometimes it's easy to get so caught up in our day-to-day work that we forget about the big picture. From time-to-time it's important to stand back and take stock of the impact our work has had. Recognising the importance of our work was emphasised at this year's Annual Research Meeting in July. Hearing from the breeding programs gave real insight into how MPB research is helping to bring about new and better varieties faster, and the presentation from farmer John Lush highlighted the importance of ongoing research to growers.

We must not understate the clear track record of success our CRC has had. Our strong international reputation was recently highlighted to our Chairman Tony Gregson. A research leader from a major international agricultural research institute in Europe indicated to Tony that they saw MPBCRC as one of their main international 'competitors'. Indeed, more and more often as we encounter new contacts within our industry our reputation for world-class research precedes us.

But reputation is not enough. The only true measure of the success of this CRC will be whether we have achieved the commercialisation of our technologies to benefit industry. Our vision for the end of this CRC is to have our research delivered through a number of entities linked to our commercial partners.

With 'Gramina' the Wrightson joint venture on transgenic pasture grasses now established, we are well on our way to achieving this end. I look forward to the establishment of similar ventures in wheat and barley and in other areas of research.

I welcome the newest addition to the Commercial management team, Jonathan Fenwick. Jonathan's appointment gives us an increased capacity that will help to make our shared vision become reality.

Bryan Whan CEO

Another successful ARM



Geoff Cornish, Maria-Jane Appelbee and Jim Lewis



Renaissance man Andrew Lloyd sings to a distracted audience



What really happens at the Student Retreat

The MPB Annual Research Meeting was held in July at the Ballarat Lodge, and was attended by 120 CRC participants from Australia and overseas.

Among the many highlights of the three day conference were the guest speaker presentations by Science Communicator Julian Cribb, Dairy CRC CEO Paul Donnelly and former SAFF President John Lush.

This was the second year the ARM was preceded by a two day Student Retreat. Honours and PhD students from all over Australia, as well as one student from Syria, came together to network and build new skills. Among the topics covered were presentation skills, time management, editing and intellectual property.

A number of PhD students presented at the ARM. Congratulations go to Scott Boden for winning the award for best student presentation, and to Meredith Carter and Nik Cummings for winning the Students' Choice award.

Feedback regarding the ARM has been very positive, with the majority of participants indicating on the survey that they found the meeting very productive and highly relevant. However, a number of participants suggested that the timing of the meeting, during school holidays, made it difficult for parents to attend. With this in mind, the dates for the 2006 meeting have been set in early July – a mid-term period for Victoria, South Australia and Western Australia. The 2006 ARM has been scheduled for:

Student retreat: 3–5 July 2006
ARM: 5–7 July 2006

The time has also come for the event to shift locations. This has been the third year running the meeting has been held in Ballarat, and despite the Lodge being an excellent conference venue, many of us are ready for a change. Head Office staff are currently evaluating venues based in Western Australia as possible ARM locations. Check the December newsletter for conference details.

Hectic time for Education Program

By Heather Bray

In the last few months MPB has been involved in a record number of community education events across 3 states, many in collaboration with the Australian Centre for Plant Functional Genomics.

While the Education Team participated in an on-line discussion on the issues surrounding GM crops with the Open Access College of SA, The Gene Juice Bar was on display at Science outside the Square's 'Food and Drink – the sustenance of life.' An initiative of the SA government following Baroness Professor Susan Greenfield's time as Thinker in Residence, Science Outside the Square is a series of community events looking at different aspects of science.

National Science Week started with the Gene Juice Bar on display at the launch at the SA Museum and continued with presentations of Beer: Barley to Bottle at Jamestown in regional

SA and Mawsons Lakes in Adelaide's north, The Gene Juice Bar at the University of Adelaide's Open Day, a presentation on GM called 'Waiter – there's a gene in my soup' at 'Munch on Science for Lunch' at the SA Museum and Carl Ramage helped run an adult gene technology workshop in conjunction with the Gene Technology Information Service in Melbourne.

After National Science Week came Dowerin field days in WA with a great turn-out from SABC staff and students to help tend the stand. At the same time, the Royal Adelaide Show was underway in SA and many people from both ACPFG and MPB helped with the display, showing people both DNA and the properties of gluten.

The Education Team would like to take this opportunity to thank all of those involved and look forward to giving you more opportunities to 'spread the love' next year.

Rudi Appels receives Chinese Ag Sciences award



MPB Western representative Prof Rudi Appels was recently awarded an Honorary Research Professor certificate by the Chinese Academy of Agricultural Sciences. The photograph shows Rudi with colleagues Prof Zhonghu He (left) and Prof Xin Zhiyong (right). The award was presented in recognition of long standing commitment and leadership in collaborative research projects over the past 20 years.

The areas of collaborative research have covered the identification of germplasm resources for conferring resistance to barley yellow dwarf virus, transgenic wheat research, wheat genome sequencing projects, and identifying new molecular markers for use in breeding.

More recently (2005) collaborative research projects in the areas of wheat flour quality attributes and large-scale wheat genome sequencing have been developed.

New Commercial Officer for MPB



Newest MPB staff member Jonathan Fenwick

Marrying science and law has always been a career priority for MPB's new Commercial Officer Jonathan Fenwick.

Joining the head office staff in August, Jonathan was appointed to assist Commercial Director Cheryl McCaffery in the commercialisation of MPB research.

Educated at the University of Queensland, Jonathan completed Science and Law degrees where he majored in molecular biosciences. After graduation, he worked as judge's associate in the Queensland Supreme Court, and then completed

his article clerkship with legal firm Ebsworth & Ebsworth.

Jonathan is currently completing a Masters degree in IP law, and says that IP was the logical choice if he was to combine his two passions.

"I always wanted to combine science and law and the only real way of doing that is to practice IP."

So he took a job with one of the biggest IP practices in Brisbane, Phillips Fox, where he gained valuable experience assisting a number of biomedical research companies with their IP issues.

"When the opportunity to move down here to work with MPB arose, that was something I really jumped at," Jonathan says.

"I've got a fairly solid base in IP but there's a lot more to learn. That's why it's going to be really great working with Cheryl because she's been in the industry and knows a lot of people and has been involved in not only the legal but also the commercial side."

"For me the opportunity to get exposure to the commercial side of what the CRC and other similar groups are doing is the greatest opportunity of all."

Jonathan says he's looking forward to learning more about the CRC's research.

"At university I'd done some plant biochemistry and cell biology but the focus in most molecular bioscience degrees is on the animal side. To see so much going on in the plant arena and to see what was being done in terms of increasing outputs and nutritional value of grasses and grains is really interesting."

"I was blown away to see that there even was a grass industry! I thought grass was just something that grew on the ground and that graziers never needed to think about!"

Jonathan and his girlfriend Marielle are looking forward checking out the local Melbourne scene.

"I've never been to a Melbourne Cup or to the MCG or explored what Melbourne has to offer, so there's a whole lot of boxes I need to tick there, and that will be really fun."

"I always thought that if I was to live anywhere else it would be Melbourne."

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MPB scores at Barley Technical Symposium



Paul Johnson Memorial Trust Award recipient Tim March

MPB staff and students won almost every single award at the 12th Australian Barley Technical Symposium held in Hobart this month.

Timothy March, PhD student at The University of Adelaide has been awarded the Paul Johnson Memorial Trust Award for his research on the biochemistry of black point in barley. Tim was described by the selection committee as "a young man with a promising academic career".

The award recognises a scientist under the age of 30 who has shown originality and innovation in their research, and has a good knowledge of the Australian barley industry. Their research must have scientific merit and is expected to have an impact on the industry.

Tim received \$5,000 towards the cost of travel and registration to an appropriate international barley conference.

Last year the award went to another MPB student, Elysia Vassos from The University of Adelaide, who used the award to attend an international Barley Genetics Symposium in Czech Republic. This year Elysia took out the award for best poster presentation.

Also recognised was SARDI Senior Research Officer Felicity Keiper, who received the Barley Research Incentive Award for the best presentation by a researcher under the age of 35. Felicity was presented with \$5,000 from the Barley Technical Symposium and the Paul Johnson Memorial Trust towards travel to an international barley conference.

In brief

Honourable mention for Get into Genes team



Heather Bray and Belinda Barr receiving their certificate from Science Minister Karlene Maywald

MPBCRC and ACPFG were finalists in the South Australian Premier's Science Awards in August. Heather Bray and Belinda Barr were under consideration for the Science Educator of the Year Award, for their high school workshop on plant genetics and plant breeding: Get into Genes.

Other award categories included Research Leadership, Research for Commercial Outcomes, and Research for Public Good.

Taking out the Education Award was Brenton Danise, Dean of Teaching and Learning at the University of South Australia, for his ongoing work with the Robotic Peer Mentoring Program. The program seeks to raise the profile of electronics, science and engineering in secondary schools.

The Get into Genes team was presented with a certificate by Science Minister Hon Karlene Maywald MP.

Movers and Shakers

University of Adelaide PhD student Sherri Kruger is moving back to Canada to be closer to her family. Good luck Sherri! We wish you well and look forward to the imminent submission of your PhD thesis!

Senior Research Scientist Michael Emmerling has left DPI at La Trobe to work for QIAGEN Australia, where he has taken up a role in Technical Services as an official "troubleshooter". Michael says he is loving his new role, but already misses all the people at DPI. Michael made a lasting contribution to the CRC both with his research and with his photography. Thanks for all your hard work and support over the years Michael!

Alessandro Pellegrineschi leaves CIMMYT in October to take up a research position at Pioneer Hi-Bred. Alessandro will continue working with transgenics, but will change focus from wheat to other crops. Alessandro made a strong contribution to the CRC in developing transformation systems in wheat. His skills and enthusiasm will be missed.

Jonathan Crouch has joined CIMMYT as Director of the Genetic Resources program. Formerly of International Crops Research Institute for the Semi-Arid Tropics (ICRISTAT), Jonathan will continue his career focus of crop improvement for harsh environments, and will be responsible for much of the work conducted by the CRC at CIMMYT.



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The Newsletter of Molecular Plant Breeding CRC

On the mark is produced quarterly. All contributions are welcome. If you have news about MPBCRC activities, events, research or international travel please contact us for inclusion in the next newsletter.

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Diary dates

Annual Research Meeting 2006

Student retreat: 3-5 July
ARM: 5-7 July
Venue to be determined, Perth

Agricultural Biotechnology International Conference (ABIC)

6-9 August 2006
Melbourne
www.abic2006.org

13th Australasian Plant Breeding Conference

MPB is sponsoring the Plant Gene Technologies section of the 13th Australasian Plant Breeding Conference in April 2006.

18-21 April 2006
Christchurch, New Zealand
www.apbc.org.nz



The final word...

Did you know...? The average person consumes 53.4 kg of bread per year.