

6th IWCSPP Conference Summary

Bruce Champ

Chairman of the Organising Committee

On behalf of the organising committee I shall attempt to summarise the activities of the past six days. It has been a great pleasure to welcome you all to Canberra and particularly to have the conference opened by Mr John Kerin, formerly Minister for Primary Industries and Energy and for Trade and Overseas Development, and acknowledged as a great friend of agriculture in Australia. Our sincere thanks must be conveyed to CSIRO and ACIAR, the organisations which have contributed so much to making the conference a reality. Notwithstanding, the conference has truly been a team effort by the many faces and groups which make up the Australian grain industry, and it is extremely gratifying to see participation by such a cross-section of the industry in both the conference and the trade exhibition. Equally, the attendance of our overseas colleagues has ensured that the widest range of technologies is available for discussion, and thus accessible to protect food and feedstuffs in storage.

The working conferences have a simple purpose — ‘to provide the opportunity for international scientists to discuss current basic and practical stored-product research and to identify research needs for the future’. The organising committee feels this has been achieved. Thus, as the conference draws to a close, we come to the final session titled ‘Looking to the future’. All the papers have been presented and the discussion sessions and workshops are complete. The various chairmen have presented their summaries distilling from the various deliberations the messages for the future. Their reports will be included in the proceedings of the conference.

The organising committee implemented a policy of requiring all contributed papers to be presented in poster format even if presented orally. This appears to have been very useful and well received by participants. Similarly, the collocation of the industry exhibition with the poster displays has been very successful not only in its own right but as a venue for morning and afternoon breaks and other informal discussions.

A number of major issues have been identified. Some of these should be revisited briefly and, of course, the specific recommendations that address the title of this session ‘Looking to the future’ should be brought to your attention.

Before doing this, it would be appropriate to comment generally on the conference. It has been extremely gratifying for the organising committee to see so many participants. There is a wide range of disciplines represented, covering research and development in both the commercial and public sectors and, of course, from all around the world. The conference was arranged at a difficult time on the world scene, with a recession both in economic terms and particularly in resources available to agriculture, and more so to the post-harvest sector. Furthermore, Australia is at the end of the world, so to speak, increasing travel costs considerably. Against this background we have had a record attendance. The message from this is clear — the global network on stored product protection is alive and thriving.

I am sure that through the conference sessions, the industry exhibition, and the social events, many new friendships

and business contacts have been forged and old friendships consolidated, and that in ‘looking to the future’ our activities will be that much more effective and profitable.

On a different note, I should like to refer to an increasingly obvious deficiency in current research strategy that has emerged in discussions during the conference, and which I believe is impeding our potential to look to the future. This concerns the importance of ensuring that our research base and the pool of information generated is sustained and not eroded. With resources becoming more limited and less funding available for basic research, particularly through core funding of organisations, there is a real danger that building the base of tomorrow’s technology is at risk. It is not sufficient to depend on limited-term funding from industry for solving immediate problems — there must also be long-term, stable support through the public sector for research and development. The economic rationalism that has done so much damage to agriculture must be abandoned and the entrepreneurial management approaches of the last decade recognised for the failures they have been. All must strive to ensure that a balance between basic and strategic research is maintained in our programs and that we convince those who control the finances of the necessity for this.

Still in this context, it was encouraging to see the interest in the conference in applied science, but disturbing to see the disappointingly small attendances at biology sessions and the parallel dearth of contributed papers in this area. Let us hope that the biology base on which many of our activities depend is not being neglected. Certainly, there is a perception that pure biology studies do not have a high profile and therefore do not attract the funding that appears to be a requirement in operating our research and development programs today. The situation must be rectified.

With reference to more specific issues, my summary is conditioned by a problem common to all of us — it was not possible to attend every session.

The **fumigation and controlled atmospheres** sessions appeared to attract the strongest support. The concerns of the discussion groups were reflected in the following *recommendations*:

- That government and other regulating authorities, in cooperation with manufacturers and distributors, provide accurate information for the effective training of fumigators.
- That adoption of effective fumigation practices be fostered by
 - appropriate extension programs arranged by government
 - effective training of fumigators and regulation of their activities
 - identification of incentives that ensure fumigations are carried out in the best possible manner
 - effective preparation of enclosures based on pressure testing to accepted standards
 - monitoring of gas concentrations during fumigation to ensure minimum effective dosages are exceeded.

These recommendations reinforce earlier initiatives in the region by the ASEAN Food Handling Bureau in organising a series of 'Suggested Recommendations for Fumigation of Grains in the ASEAN Region'. The working party convened for developing these ASEAN recommendations will provide a platform for promoting the new recommendations at least in Southeast Asia.

The complementary sessions on **grain protectants** were also well supported. While changes in market attitudes to pesticide residues are being reflected in a reduction in use of protectants, they have also promoted development of new age materials. Currently in the pipeline are one organophosphorous compound, three pyrethroids and a chitin inhibitor. Additionally, concern was expressed that when the registration of older materials lapsed, the lack of publicity on challenges to their re-registration could result in the loss of these tried and proven materials simply by default. It was *recommended*:

- that specific attention be focused on this problem to ensure continued availability of pest management chemicals.

Inert dusts are certainly a growth area. The materials have been with us for a long time but are now only realising their full potential. There was considerable interest in their applications as demonstrated during the field trip on the second day of the conference.

The sessions on **storage fungi and mycotoxins** including the mini symposium on 'Changing perspectives of the origins of mycotoxin contamination' highlighted an area that has emerged as a major constraint to safe storage and provision of food to consumers. Previously, most attention was focused on aflatoxins after harvest but this has now changed to examining preharvest aspects of the problem and involving a wider range of fungi, particularly the *Fusarium* species. As with other areas, the need to involve other disciplines has been identified as mandatory if the problems are to be managed effectively. In this case we are dealing with materials that may be toxins and may adversely affect feeding in animals as well as being carcinogens or immunosuppressants. Hence, efforts to manage the problem must be interfaced with human and animal health and nutrition studies. Moreover, increasing awareness and acceptance of

the mycotoxin problem in these areas could release resources of an order not available in agriculture to address the problem. There are specialist groups which will ensure that this will happen.

The sessions on the vitally important topics of **engineering** and **grain quality** were well supported but, considering the pivotal role that both play in stored product protection, still greater attention to them is commended, as engineering provides inherent permanency in solutions to problems and quality provides the measure of success in achieving this.

Integrated commodity management and **physical and biological control** are commanding increasing attention and this trend must continue.

With the workshops, that on **trapping** maintained the high level of interest it always attracts. Progress in interpretation of trap catches was highlighted, as was the use of pheromones in control programs. It was evident that the other workshops were equally successful. The **extension** workshop was very well supported and analysis of the exercises undertaken is referred to elsewhere in this proceedings. The **standards** workshop identified where draft standards were needed and the key people to draw these up for pesticide resistance, airtight storage, aeration, and population dynamics. With **expert systems**, a pressing need was identified for networking in this topic so that information and ideas could be exchanged — some form of electronic bulletin board. There was very considerable interest in the **appropriate storage** workshop which was concerned with tying together our activities in systems for storage and commodity management.

Thus, there has been a significant body of information generated at the conference and considered in plenary and workshop discussions. We shall publish the proceedings of the conference in association with the Commonwealth Agricultural Bureaux International, at which time the full impact of the Conference will be realised. There will be effective follow-ups as the participants, particularly those in the workshops, will expedite arrangements through existing channels to implement the findings of their discussions.

This conference is now finished and on behalf of the organising committee, I pass the meeting to the President of the Permanent Committee — Dr Larry Zettler.

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