- Pollution Prevention
- Process Intensification.

V Definition of Green Chemistry
- New Approach to Risk Reduction
- Concept of Intrinsic Hazard

VI Principles of Green Chemistry
VII Economic Considerations
VIII Recommendations for Fundamental Research Needs.

As scientific products are concerned, the Working Party decided to submit a proposal for a special issue on Chemistry for the Environment to be published in IUPAC's journal *Pure and Applied Chemistry*.

Other products will be:

1. Prepare and manage an Internet home page on the subject within the IUPAC web site.
2. Advertise the activities of the Working Party in the major scientific journals.

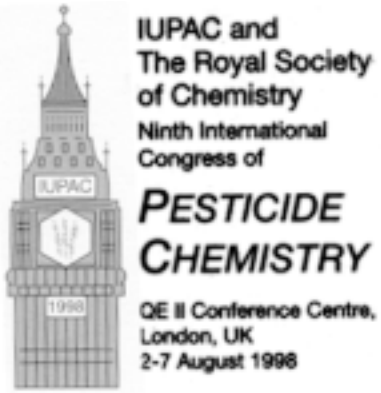
P. Tundo

9th IUPAC International Congress of Pesticide Chemistry 2–7 August 1998, London, United Kingdom

The prestigious Queen Elizabeth II Conference Centre in London was the venue of the 9th IUPAC International Congress of Pesticide Chemistry. The Congress, sponsored by IUPAC and organized by the Royal Society of Chemistry, was attended by over 1,700 delegates from 58 countries worldwide.

Historically this Congress is held every 4 years and has previously been held in Israel, Finland, Switzerland, Japan, Canada, Germany, and during 1994 in Washington DC, USA.

The Congress theme for 1998 was "The Food and Environment Challenge", reflecting the problem of feeding the ever increasing world population in the next millennium while also meeting the high demands



Dr. John Finney, Chairman of the Executive Committee

for environmental quality and a safe food supply. The Congress was opened on 2 August with a welcome from the Chairman of the Executive Committee, John Finney, and by Dr. Junshi Miyamoto, President of the IUPAC Division of Chemistry and the Environment. Dr. Miyamoto briefly explained the organisation and role of IUPAC and in particular the formation of the new Division of Chemistry and the Environment.

The theme of the Congress was pursued at the opening ceremony by two plenary lectures from Dr. D. Evans, Zeneca Agrochemicals, and Professor Sir Colin Berry, UK Advisory Committee on Pesticides. In his lecture entitled " How can technology feed the world safely and sustainably", Dr. Evans told the assembled audience that with the expectation that the world's population would double in the next 50 years, combined with the requirement for greater food quality and variety, an integrated approach using all forms of technology will be crucial to provide safe food while ensuring sustainability. He went on to say that we are currently witnessing a significant change in crop protection. The organic chemists are exploiting advances in combinatorial chemistry and robotics, and the biologists are designing high-throughput screens dedicated to finding new chemistries that are effective at low-use rates and are environmentally and toxicologically benign. Dr. Evans also recognized the impressive progress made in the area of bioscience and the positioning of transgenic crops: he did, however, emphasize the importance of public debate and freedom of choice for consumers.

Professor Sir Colin Berry, in his lecture entitled "Caution, precaution, and indemnity", continued the theme of food and food safety, looking primarily at regulation. Professor Berry told the audience that the variety, quality, and quantity of food currently available has improved significantly over the last 40 years.

Dr. Junshi Miyamoto, President of the IUPAC Division of Chemistry and the Environment

He indicated that many problems in food production and preparation are microbiological, yet despite this reason it is the chemicals in food, many of which are added to prevent microbiological problems, that cause consumer anxiety and hence increase regulation. Professor Berry presented several examples highlighting how the pesticide industry is affected by health concerns that are in many cases illogical when compared to other normal household activities. In summing up, Professor Berry reminded the audience that regulation clearly does increase safety, but it does not in itself generate safety. All regulations should be formulated using a risk–benefit analysis.

The Congress itself revolved around eight main topics representing all the phases of pesticides invention through registration. Each of the main topics comprised four or five plenary lectures supported by five related poster sessions each with an associated workshop. The main topics were:

1. Synthesis and Structure Activity Relationships
2. Delivery
3. Natural Products
4. Mode of Action
5. Metabolism
6. Environmental Fate
7. Residues in Food and the Environment
8. Regulation and Risk Assessment

The plenary lectures were given by leading authorities in the individual subject areas and chosen to provide new insights and to provoke discussion that could be further taken up in the poster sessions and workshops.

Over 1,000 posters were presented at the Congress and, combined with subsequent workshops, provided a forum for scientific debate.

This event is a highlight in the Pesticide Chemistry diary, bringing together practitioners from a wide range of disciplines and facilitating both broad-based and specific discussions.

The next Congress, the 10th, will be held in Basel Switzerland in August 2002, and will be organized by the New Swiss Chemical Society and the Swiss Society of Chemical Industries. The theme of the Congress will be “Innovative Solutions for Healthy Crops”.

M. Skidmore
Commission of Agrochemicals and the Environment VI.4.

Special Panel Discussion Session at the 9th International Congress of Pesticide Chemistry

The Role of Publicly Funded Research in the Risk Assessment and Registration of Pesticides

The 9th Congress offered an opportunity for university and government pesticide scientists from around the world to compare experiences of their funding situations, in a special session organized while the Congress was in progress. Organizers informally asked nine scientists from seven countries to address the questions:

- Is there a real decline in publicly supported research on conventional pesticides? In what areas?
- What is the purpose and justification for publicly supported research on conventional pesticides?

The resulting discussion and audience response indicate that nonindustry research on commercial pesticide behavior and fate in the environment is declining worldwide, and that the decline is reaching levels that endanger the credibility of the risk assessment process “social contract.”

Scientists from the United States, Canada, Hungary, Egypt, and Israel (invitees from Germany and the UK were unable to attend the session) described how declining numbers of pesticide scientists in the public sector are making it more and more difficult to achieve adequate peer review of the science presented by industry in support of registrations of pesticides. Redirection of scientists to alternative pest control research, a general public aversion to the word “pesticide” and a widely held but erroneous belief that commercial pesticides will shortly be replaced by alternatives has resulted in budget cuts, declining student enrollments, and nonreplacement of retiring scientists. Several scientists described how fundamental research on pesticide environmental impact (with the exception of endocrine disruption) is having to be “bootlegged”. Yet such fundamental research is needed to improve the