

54th GHENT CONFERENCE

Brian Hicks reports on this important annual event in the European pesticide calendar

Over 450 delegates from 29 countries attended the 54th *International Symposium on Crop Protection* at the University of Ghent, Belgium, on 7 May 2002. About half of the delegates were from Belgium with a good mix from the rest of Europe, the Americas, Africa, the Middle East and even three delegates from China. The symposium has a friendly atmosphere and packs a lot of content into one day with eight different sections, 66 presentations and over 80 posters. The Flemish hospitality was excellent and the conference dinner, as always, a memorable event held in a former Ghent monastery, *Het Pand*. Also attending this year was Professor Albert Besemer (Wageningen), who gave a paper at the very first conference in 1948.

Adjuvants

In the first plenary lecture, Dr Hans de Ruiter of SURfaPLUS bv, Wageningen, reviewed recent developments in adjuvant use for agrochemicals. Dr de Ruiter recently established his own company as a spin-off from a publicly funded institute at Wageningen to provide contract research services for industry.

Since the mid-1880s a wide range of compounds have been used as adjuvants, including fish oils, linseed oil, diesel oil, moss and casein derivatives. The first large-scale use of adjuvants came in the USA in combination with the herbicide atrazine in the 1960s. To improve pesticide performance, Dr de Ruiter estimates that 110 million litres of oils and 20 million litres of surfactants are used annually in the USA today. In Europe, consumption is much lower at 9 million litres of oil and 11 million litres of surfactants. Surfactants are widely used with glyphosate and he mentioned an interesting new oil-based formulation under development by the Australian concern, Victorian Chemical Company. Other promising new surfactants are being developed by OSi/Crompton, Akzo Nobel, Adjuvants Unlimited, Seppic France and Cognis. Dr de Ruiter also discussed other new developments in floriculture and the use of biological adjuvants.

Methyl bromide alternatives

The *Professor Jozef van den Brande Award*, named after the chairman of the first symposium, was made to Richard

Sikora, a US-born scientist who is professor of soil ecosystem phytopathology and nematology at the Institute for Plant Pathology at the University of Bonn, Germany. Dr Sikora first made a presentation at a Ghent conference in 1971 when aged 26 and has been involved with pest and disease management work in over 40 countries, many in Africa and Asia. He has written or contributed to over 1100 research papers and made some 180 presentations at scientific meetings.

In his plenary lecture, Dr Sikora described some of the efforts to find effective alternatives to the fumigant methyl bromide, in particular for control of plant parasitic nematodes. He said that a lot of groups were lobbying to keep methyl bromide for some uses, especially in the USA, as effective substitutes have not been found. The cost of alternatives is also very high, as much as US\$27,000 per hectare. There are indications that some stockpiling of methyl bromide is occurring. He highlighted the difficulty of finding an alternative that also enables planting within 48 hours of use.

Dr Sikora said that many alternatives such as solarisation, biocontrol, use of green manures and resistant rootstock (*e.g.* tomatoes) are working well in many parts of the world, especially where labour is cheap. The use of chemicals in irrigation systems is also giving promising results. The use of trap crops can also be helpful in controlling nematode populations, as can appropriate crop rotations. One example is Japan, where bananas are now often grown after paddy rice. However, some of these methods are not always appropriate or cost-effective in parts of the developed world such as Florida, Italy and Spain.

Dr Sikora mentioned a German company developing a product based on *Paecilomyces*, which could come to market soon. He said that there were many species of bacteria present in the roots of plants between the cells and the use of signals from these might be helpful in deterring nematodes. Dr Sikora commented that in the same way that the worm has got to taste good for the fish and not the fisherman, likewise the methyl bromide alternative must suit the farmer and not the scientist.

For a copy of conference proceedings Tel: +32 9 264 61 58 Fax: +32 9 264 62 39 E-mail Patrick.Declercq@rug.ac.be Website: <http://allserv.rug.ac.be/~hvanbost/symposium>