



GREETINGS  
FROM THE MD

I<sub>2</sub>L's Biannual Newsletter

August 2005

### ☞ Greetings from the MD ☜



Of late, running I<sub>2</sub>L has seemed a bit like assembling a complex jigsaw puzzle. Following our recent announcements, you will be aware that we have been very busy during the last few months. Not only have we set up and then expanded our branch office in the North East of England (see below), but have also taken the important step of entering into a Strategic Alliance with the SynTech Group (also below) – a development that we believe will be of

great benefit to both groups. In addition, we have expanded our herbicides, regulatory and insect monitoring services (see overleaf). These developments, combined with a large increase in project volume over the past months, have proved demanding both for myself and our growing work force. We're not complaining though. Such sustained development is the lifeblood of a small company like ours.

We have promoted two of our trials officers to Study Director this year. **Helena Dawe** will be directing GEP studies on a wide range of pests and **Kerry Hutcheson** will be responsible for laboratory and extended laboratory GLP ecotoxicology trials.

Many thanks, as ever, for your continued patronage of what, I hope you will agree, is an increasingly interesting and expert CRO. Later this year, I<sub>2</sub>L will be attending NPMA in Nashville, FAOPMA in Korea, Pestech in Birmingham and BCPC in Glasgow. We look forward to seeing you at these events.

### Strategic Alliance with SynTech Group

In July, I<sub>2</sub>L announced an exclusive Strategic Alliance with SynTech Group ([www.syntechresearch.com](http://www.syntechresearch.com)) with immediate effect. The two groups complement each other well and expect major mutual benefits from the new relationship. From I<sub>2</sub>L's perspective, we are now able to offer a broader range of GLP and GEP field studies to our clients and with many more geographical locations and pest types. If you would like more information on this alliance and our extended capabilities, please contact Peter McEwen, e-mail [peter@insect-investigations.com](mailto:peter@insect-investigations.com).

### I<sub>2</sub>L North East



Those of you who received our 'I<sub>2</sub>L Newsflash' in January will know that we have opened a branch office in Newcastle, in the North East of England. I<sub>2</sub>L North East, as the branch is now called, is based at the University of Newcastle's Biology Field Station, enabling us to access all of the excellent field and glasshouse testing facilities available there. The photo (left) shows an area used for small field studies. Don't worry though! It doesn't always snow there!

The establishment of I<sub>2</sub>L North East came in response to our clients who often asked if we could offer multi-site field trials on crop protection products. Our network of field trials sites in Wales, combined with the field sites available in Newcastle, now enable us to offer such trials.

I<sub>2</sub>L North East has been an instant success and has already brought in several significant contracts for molluscicide, insecticide and herbicide trials. Catherine Whaley heads up I<sub>2</sub>L North East. For more information, please e-mail [catherine@insect-investigations.com](mailto:catherine@insect-investigations.com) or telephone 07946 228867.

STRATEGIC ALLIANCE  
WITH SYNTECH  
GROUP

I<sub>2</sub>L NORTH EAST

ALTERNATIVES TO  
METHYL BROMIDE  
USE IN FLOUR MILLS

ICUP 2005

PESTS IN THE NEWS

TO DEET OR  
NOT TO DEET?



..Rapid  
Responsive  
Reliable

## To DEET or not to DEET?

DEET (chemical name, N,N-diethyl-meta-toluamide) has been used as the active ingredient in insect repellent products for many years. It is effective against biting pests such as mosquitoes and ticks, some of which are important vectors of diseases. Products containing DEET include a variety of liquids, lotions, sprays and impregnated materials and in the US alone, nearly 100 million people are expected to use one of these products every year.

In recent years, fears have grown over the possible harmful effects of DEET, especially when used on children. Although there has been no conclusive proof that DEET can be harmful, bad press has impacted upon the sale of DEET-based products and alternative repellent actives, including natural plant extracts, are being tested and brought to market.

So how are these repellents tested? At I<sub>2</sub>L, we currently offer two standard tests. In the first, a person exposes a forearm in a cage of hungry female mosquitoes and landing and biting is compared over a time course between repellent-treated and untreated skin. The second involves the person sitting in a room and exposing their legs to these blood suckers. Any volunteers?

If you'd like to know more about our repellent testing service, please contact Helena Dawe, e-mail [helena@insect-investigations.com](mailto:helena@insect-investigations.com)

I<sub>2</sub>L Express Editor & Designer:  
Graham Small

Further information on the services mentioned in this newsletter, and on all our other services, can be obtained from our website: [www.insect-investigations.com](http://www.insect-investigations.com)

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## Alternatives to methyl bromide use in flour mills

Fumigation with methyl bromide is a long established and effective method for the control of stored-product insects in flour mills. However, many uses of this chemical were banned from 1<sup>st</sup> January 2005 because, on entering the atmosphere, it is a powerful ozone depleter. Many alternatives have now been tested, and continue to be tested, as replacements for methyl bromide. These include physical control methods such as heat and cold treatments and general sanitation methods, and alternative fumigants such as phosphine, sulfuryl fluoride [trade names ProFume and Vikane (™ Dow AgroSciences)] and carbonyl fluoride. In the UK, ProFume has been registered for use in emptied cereal grain mills and storage areas and is now in its second year of commercial use. Other approvals covering new areas of use are expected in the future. ProFume is also approved in several other European countries and in the USA, and registration applications have been made in Australia and Canada. In general, millers are adopting a more integrated approach to pest control in their mills, employing a combination of different methods to manage stored-product insects.

With our expertise in product efficacy testing and pest monitoring, I<sub>2</sub>L is well placed to assist the pest control industry in testing the effectiveness of different methods for stored-product pest management. Indeed, we have been involved with a number of product trials in flour mills during 2005. For further information on I<sub>2</sub>L's capabilities, please contact **Graham Small**, [graham@insect-investigations.com](mailto:graham@insect-investigations.com).



## ICUP 2005

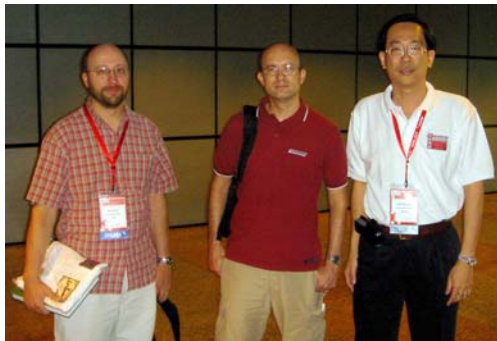
During July, I<sub>2</sub>L's Technical Director, Graham Small, attended the 5<sup>th</sup> International Conference on Urban Pests in Singapore. Both the venue and organisation were excellent, providing

ample opportunities to network and to catch up on the most up-to-date science behind urban pest management.

One of the hot topics of the conference was the resurgence of bait aversion in the German cockroach and the strategies being developed to manage bait averse populations. There were also some fascinating presentations relating to the management of termites, ants, houseflies and mosquitoes.

Graham (centre) can be seen here with Prof. Chow-Yang Lee (right), Programme Chairperson for ICUP 2005 and Dr Mike Scharf (left), an expert on termite and cockroach biology from the University of Florida.

ICUP 2008 will be in the wonderful city of Budapest in Hungary.



## Pests in the news

A type of fungus may provide the latest weapon in the fight against the world's deadliest disease, malaria. A team of researchers from the University of Edinburgh and Imperial College, London found that adult mosquitoes coming into contact with the spores of the fungus *Beauveria bassiana* caused the fungus to germinate and penetrate the insect's body, eventually killing it.

Having taken a blood meal, the females of some species of malaria transmitting mosquitoes rest on the walls and ceiling of houses occupied by their human host. It is hoped that, by treating these surfaces with spores of the entomopathogenic fungus, these mosquitoes will be effectively controlled.

In laboratory experiments in which the inert spores were sprayed onto cage mesh to which adult mosquitoes were then exposed, over 90% of insects died within 14 days of exposure and malaria transmission was reduced by 98%. Control within 14 days is crucial as it takes about this time from a mosquito feeding on a human carrying the malaria parasite to that mosquito becoming infective to another human by taking a second blood meal.

A second team of researchers from the Ifakara Health Research and Development Centre in Tanzania, the Swiss Tropical Institute and Wageningen University in The Netherlands found that mosquitoes contacting a fungus spore treated sheet in houses also became infected with the fungus and died.

Further research is now underway to develop this new technology into an effective and affordable tool for mosquito management.

