FEDERATION OF ASIAN & OCEANIA PEST MANAGERS ASSOCIATIONS

PPM News

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PRESIDENT'S MESSAGE

***Dear FAOPMA Members*:**

Strength in Unity!

In this increasingly globalized world, pest problems are no longer limited to a particular country or region. This presents us with unprecedented challenges, as well as opportunities.

A case in point ─ the Zika outbreak in Singapore has posed great risks to the neighboring countries. This calls for unity within our industry and sharing of information, technologies, and other vital resources, in order to tackle those public health challenges.

Recently, the G20 Summit was held in Hangzhou, China. The theme of that conference was ***"Build an Innovative, Vibrant, Interconnected and Tolerant World Economy".*** As leaders of our industry, we have been making concerted efforts to unite all of the forces in the industry.

In February of this year, we preliminarily agreed to integrate FAOPMA with Pest Summit and in March, it was approved by the special session of the FAOPMA Executive Committee in Hangzhou. Finally, the Memorandum of Agreement was signed to officially complete the integration of the two great organizations. **Together**, we will create a new environment in which our industry will flourish in our region.

Opportunity implies challenges. Integration requires some give and take. No gain can be achieved without pain and healthy competition will eventually lead to a win-win result.

We firmly believe that with this newly formed and united organization, more talent will join our industry and we will become a much stronger industry because... … … ***There is Strength in Unity!***

I wish all of you great health and happiness – and dignity and professionalism!

Mdm. Huang Xiao Yun
FAOPMA President (2015-2017)
The Chinese Pest Control Association

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An Absoloutely Splendid Conference

Wow! There is no doubt at all that FAOPMA CONFERENCE 2016 , the 27th Convention, was a complete success! With more than 600 delegates, is it any wonder that the host Association – AEPMA – had to close off registrations because it was sold out? Much of that success was entirely due to all the diligent preparation work put into it by the team at AEPMA National Office, ably backed by the FAOPMA Administration.

Behind-the-scenes events culminated on the 13th September with frantic satchel preparation while the FAOPMA Executive Committee met, followed by the 2016 Annual General Meeting and the AGM Dinner that evening.

Executive Committee Meeting

Annual General Meeting

After registration the following day, the welcome reception (sponsored by Syngenta) was held at the Dolphin Beach Lagoon and we got to see Sea World's amazing Dolphin Show "Affinity", which is an unforgettable experience with one of the world's most intriguing animals.

The Gala Dinner (sponsored by BASF) on Thursday 15th promised to be a spectacular night and an event not to be missed. It was a true promise! Always a popular event, AEPMA had gone the extra mile for a truly memorable evening, holding the dinner at McLaren's Landing on South Stradbroke Island!!! On perhaps the one occasion when it should not have rained, it did – and it certainly DID!

Luxury catamarans transported guests over the stunning, (fairly) calm Broadwater to the island, while delegates enjoyed drinks and watched the sunset. Under flaming torchlight, the night included the much anticipated announcement of the Australian "Pest Manager of the Year" (sponsored by BASF).

AEPMA Past President David Gay, Executive Director Stephen Ware, President Vasili Tsoutouras & Vice President Victor Morgan

The Philippines delegation enjoyed the Gala Dinner

… … as did many others !!

But don't think it was all fun and high living. There was a lot of serious work going on throughout the Conference as readers will see on the following page.

2016 Conference Trade Displays

The Conference included an outstanding Trade Show. The exhibition halls were filled with over 40 exhibitors' stands, providing the latest in products and technologies in pest control and associated pest management fields. In fact there was simply no room for more exhibits and I understand that some applications from those who left it until the last minute to book a stand had to be declined.

Photographs shown on the two pages of this Conference Summary are by Patrick Legey (AEPMA) and Bessie Lo (FAOPMA)

2016 Conference Business Sessions

The Organisers' decision to have the Business Sessions divided into two separate streams proved to be effective. Held in distinctly different locations, both Streams were strongly supported and as their management by Chairmen **Craig Hickey** and **Doug Howick** was timely, movement from one stream to the other was efficient.

Highlights include focussed presentations on Termites and Termite Control, with such high profile experts as **Dr Charunee Vongkaluang** from the Royal Forest Department in Bangkok, Thailand during a Working Breakfas (sponsored by Sherwood Chemicals); **Dr Theo Evans** from the University of Western Australia in Perth and our ubiquitous Isopteran expert **Dr Don Ewart** from Melbourne**. Steve Broadbent's** information on rodent management at the other Working Breakfast (sponsored by Ensystex) was also great.

With the emerging threat of the Zika Virus – **Dr Stephen Doggett** presented on the latest in Mosquitoes and Mosquito-Borne Threats. His colleague, PhD candidate **David Lilly** explained the "thick & thin" of insecticide resistance to bed bugs.

Delegates enjoyed an outstanding presentation by **Shane Clarke** on his techniques for training dogs to find any pest at all – including termites and bed bugs and **Peter McCarthy** fascinated us during discourse on "Bird Management – The Big End of Town".

In summary, as a Life Member of AEPMA and as Honorary Advisor for FAOPMA, I was really proud of the professionalism and effectiveness AND FRIENDLINESS of the organisation of a splendid conference. Well done!

Doug Howick

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FAOPMA "PPM NEWS" Editor's Report to AGM 2016

According to established practice, our FAOPMA "PPM NEWS" has continued to be published every two months. There have been six Issues since the 2015 Annual General Meeting in Penang and this means that since the inaugural Issue of this series in August 2012, we have successfully published and distributed no less than 25 of the 8-page Newsletters. If these were to be combined, they would constitute **a 200-page record of significant events** and occurrences within our industry over the last 4 years! For those in the wider FAOPMA family who have been unable to attend AGMs or Conferences, the Newsletter is an important way to maintain communication and access interesting information.

Our **October 2015 Issue** reported the outstanding success of the Penang Convention and brought the first message to readers from incoming President **Mdm Huang Xiao Yun.** Her thoughtful contributions to that and all subsequent Newsletters have been particularly well received and amply demonstrate her perceptive understanding of the pest management industry. In fact, as well as being informative, they have been inspiring! I must also commend the willing cooperation and assistance I have received from **Pascal Cai** who has efficiently ensured that I received those messages on time.

Throughout the year, PPM News has given considerable space aimed at stimulating further interest in the Convention here on the Gold Coast in Australia, as well as including up to date information on the meeting arrangements, registration deadlines, speakers and other details. efficiently supplied to me by **Stephen Ware** and **Kirsten Winlaw** of AEPMA.

Generally, we do not include news items from areas outside the FAOPMA geographical range unless I consider that there are events occurring in those areas from which we, in FAOPMA can learn, assimilate or of which we should be warned.

The feedback I receive as Editor, indicates that the value of the Newsletter for our members, exhibitors, sponsors and others, **is in its Content**. Meaningful content of interest to our members is key and it would be useful for me to know how interested our Members are in agricultural pest management as opposed to domestic/commercial. As your Editor, I generally have to rely upon my own resources and judgement to select what is most appropriate. Should Members have any suggestions in this regard it would be most helpful.

If you wish me to continue as your Editor:
"Here's to the next Six Issues"!

Doug Howick,
Honorary Advisor for FAOPMA,
Editor, "FAOPMA PPM News"

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New Sticky Pesticide Stays Where It Belongs

By David Grossman

Researchers at MIT have developed a new "sticky" pesticide that could be more efficient and less wasteful than current pest-control options.

One common pesticide, glyphosate, is used in the United States on the order of 250 million pounds. But that extreme volume is mostly because the application process is horrendously ineffective; only two percent of what's dropped onto the plants sticks to them. **That leaves a shocking ninety-eighty percent inefficiency, with most of the pesticide bouncing right off the plant leaves.** It's a problem that, in addition to sheer waste, allows pesticides to damage surrounding areas.

When MIT's researchers experimented with two cheap polymer-based additives, they found a way to make stickiness rapidly increase. The trick is to use two different additives which carry opposing electrical polarity charges. Once positive and negative mix on the leaf, they form droplets that stick to the leaf instead of bouncing off. When further drops of pesticide hit these drops, they tend to get stuck too, greatly decreasing the amount of runoff.

If successfully deployed the new pesticide could open new avenues to farmers of all economic outlooks, but with a particular benefit for smaller farmers who cannot afford the massive amount of pesticides currently required to compete with other, bigger farms. MIT plans to begin pilot testing in India soon.

Source: MIT via TechCrunch

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They carry disease and live among us so why do we know so little about them?


Bridie Smith

They have lived among us for close to 4000 years. You've likely seen one scuttle over railway tracks. Or heard late-night gnawing in your walls or ceiling. Most of the time, you don't even know they're there. And that's the way they like it. But if you live an urban existence, as half the world's population now does, they are your neighbours. Housemates, even.

In America, scientists are studying them because they carry disease, from typhus to spotted fever. The New Zealand government has just pledged $26 million to eradicate them entirely, along with stoats and possums. Canadian researchers who put the animal's droppings under the microscope found bacteria that cause diarrhoea and intestinal diseases in humans. **But here in Australia, no one seems to know much about them.**

Pest controller David Gay at work in one of Melbourne's laneways. Photo: Josh Robenstone

Rattus rattus*. the black rat.** Carrier of the bubonic plague. In the decade from 1900, almost 200 Sydneysiders died of the plague while in Melbourne, 10 cases were reported. Nowadays rats living in Australian cities dispatch salmonella, ***E coli and ***leptospirosis.*** They are also known to spread toxoplasma and Lyme disease. You'd be forgiven for thinking local authorities would be keeping a close eye on them.

Certainly they are in New York, home to perhaps the most scrutinised urban rats. One study found rats stick to a single New York address, spending their entire lives within the confines of one apartment building.

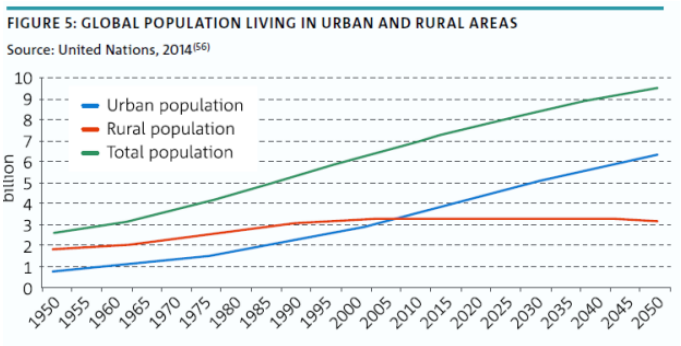
In 2014, scientists identified 18 viruses new to science from sampling just 133 rats in New York city. And there's anywhere between two and 32 million of them running around town. However, these New Yorkers are brown rats - the same ones found in science laboratories and in homes as pets. They are not the black rat we most commonly find in Australian cities, meaning we know even less about our neighbours than the Americans do.

"It's really bizarre that we don't know a lot about them here," says CSIRO infectious disease ecologist **Cadhla Firth**. Given rats are in contact with our food at almost every step of the food chain - from farms and grain stores to transport ships and restaurants - there are any number of chances for food to be contaminated and illnesses to follow. "But we really don't know much about how important their role is in that process," she said. "It's really odd."

What we do know is that the black rat is a renowned climber, as evidenced by its ability to get into roof cavities and walls. They grow to 20 centimetres, or 45 centimetres if you include the tail and live for between nine to 12 months. They breed early and often; females can have their first litter from three months old.

Now, as in plague times, rat hotspots tend to be densely populated areas where shelter and waste (read 'food', if you're a rat) are in plentiful supply according to **Melbourne pest controller David Gay**. He describes the city's rats as survivors, perfectly adapted to the urban environment, where more and more people are forecast to live.

As the graph below shows, an urban existence is set to become a reality for increasing numbers of people globally. It is expected there will be more than 6 billion people living in urbanised areas by 2050. Such concentrated living arrangements significantly increase the risk of communicable diseases spreading.



"Urbanisation is one of these big trends and the more we move into cities, the more we are going to have to start wrestling with the animals and bugs that live amongst us," Dr Firth said.

However doing research in urban areas is fraught; traps can be moved, destroyed or stolen. Baiting near domestic animals throws up obvious risks. Businesses, residents and councils with rodent problems don't always want to be moved, temporarily or otherwise.

Then there's the money - or lack of it.

"Until there's an outbreak that can be tied directly to rats, then there's not really going to be any impetus to put money into research," Dr Firth said. "We're only willing to pay for things after they have become a really big problem."

THE AGE

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Europe and China join forces against pests

Scientists from the European Union (EU) and China have joined forces in a project to develop new methods of integrated pest management in agriculture. The European and Chinese are working to guarantee a more sustainable control of pests such as whitefly (*Besimia tabaci*), as reported to Hortoinfo via the Institute of Agro-food Research and Technology (IRTA) of the Government of Catalonia.

The project, called **EUCLID** (EU-CHINA Lever for IPM Demonstration), brings together researchers from five European countries, working together with China to identify the most sustainable methods of agricultural management that do not require any chemical pesticides.

The aim is to provide scientific support to the policies of the European Union and China in order to improve the quality of agricultural products and their environmental impact, and to facilitate the exchange between the two regions.

The goal is to optimise current pest control methods and develop new ones based on integrated pest management, as well as to promote their application. "This should reduce the dependence of European and Chinese producers on chemical pesticides in selected farming systems in each region," explains the researcher Nuria Agusti, of IRTA.

Reducing the use of pesticides is one of the concerns of agriculture, because of the harmful effects of chemicals on the environment and the health of both consumers and field labourers.

The project entails the development of innovative systems of integrated pest management, the transfer of results to growers and the industry, as well as promotions of the benefits of chemical-free farming targeted to consumers.

The IRTA is one of the 18 organizations that are part of EUCLID, and will provide solutions related to biological pest control in tomatoes and leafy vegetables. The project, funded by the European Commission under the Horizon 2020 program, started in September 2015 and will last for four years.

For more information, you can access the portal of the EUCLID project (in English) by clicking here.

Source: hortoinfo.es Publication date: 8/9/2016

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Male-Male Termite Pair Makes Nests

Homosexual Termite Regicide

(IMAGE) KYOTO UNIVERSITY ***Credit: Nobuaki Mizumoto***

A male-male termite pair makes nests, just as heterosexual termite couples do. Male Japanese termites form homosexual couples when no females are around -- and when the chance arises, they take over a heterosexual couple's nest and kill the male so that one of them can mate with the now spouseless female. The study supports a theory that homosexual couplings in invertebrates have evolutionary advantages.

"Japanese termites usually make nests in monogamous, heterosexual pairs," says **Mizumoto**. "In theory, misrecognizing a female for a male in a monogamous mating system should incur considerable costs for reproduction. There had to be some sort of benefit if this were a common behavior."

In the study, published in *Animal Behaviour*, the researchers report that homosexual male termites built nests together, just as with heterosexual couples. "Male termites aren't able to survive on their own, but those that make nests with another male survived for much longer," continues Mizumoto. "This was especially beneficial in situations when searching for females raises the risk of being preyed upon. It's clear that male-male pairing is a strategy for survival."

The team found that once workers from the heterosexual couple's colony began digging tunnels to patrol, a male-male pair would travel back through the tunnel to invade and attempt to kill the heterosexual couple's nest. From genetic analyses of subsequent offspring, the scientists found that only one of the invading males had been able to mate with the female.

"Pairing with another male isn't the best option, but it gives mateless termites a chance to survive until they find a female, if that happens at all," says Mizutani. "To understand this behaviour further, it will be important to consider the effects of other factors such as predators."

New species of trapdoor spiders found in Brisbane, Gold Coast

By Geoff Chambers

New species of trapdoor spiders have been found in Brisbane and the Gold Coast, with the funnel-web-like predators constructing intricate, highly camouflaged traps to catch their prey.

A joint Griffith University and Queensland Museum research project has found previously unknown varieties of golden trapdoor spiders between Fraser Island and Cape York. The team, led by PhD student Jeremy Wilson, also discovered 10 species of trapdoor spiders in southeast Queensland.

The spiders, **which are considered to be a natural pest-controller** and can inflict a nasty bite on humans, live for up to 20 years. Mr Wilson said most people did not realise the elusive creatures, which spend much of their lives underground, were lurking close by in suburban forests, the Gold Coast hinterland and near Rockhampton's Capricorn Caves.

During the field mission, new trapdoor specimens were collected for the museum's upcoming Wild State display. "We believe there are many more undiscovered species out there," Mr Wilson said. "The really cool thing about them is that they're really long lived and they don't move much; they live in these holes their entire life. "What that means is it's really easy for populations to - become isolated and become new species."

Griffith University researcher Jeremy Wilson with a never before described golden trapdoor spider found near Gympie. Picture: Lyndon Mechielsen.

Mr Wilson found new spiders in the Lamington National Park and species that build intricate traps near Gympie. The arachnids have been described as a critical part of ecosystems in Queensland, with big female trapdoor spiders considered the top invertebrate predators.

Mr Wilson said trapdoor spider populations were dense, which meant populations near urban or farming areas could be wiped out by development. "In Australia, especially, there is so much that is still unknown about them," he said. "When they do conservation planning they need to know what's there. These trapdoor species are in danger of going extinct before we even know they exist.

"The key thing to highlight is that predators are crucial to ecosystems as they control the population of all organisms at lower levels of the food chain."

The spiders mostly stay away from humans but, with 1cm fangs, can potentially cause serious damage. During his research, Mr Wilson has become one of the country's leading experts at spotting spider traps and handling aggressive spiders.

"You have to be very careful with the spiders and if they're in a bad mood you don't pick them up. If you hesitate, that's when it will bite you."

Mr Wilson has embarked on a more focused study on the evolution of the intricate traps built by the spiders, with a focus on the impact of external environmental factors. "There's so much work that needs to be done and it's important work because these spiders get overlooked. They live in trapdoors and no one sees them."

THE AUSTRALIAN

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BAF takes proactive measures to control termites

Report by: Ritika Pratap

The Biosecurity Authority of Fiji is taking proactive measures to control and contain the spread of Asian Subterranean Termites.

Under the Biosecurity promulgation 2008, BAF has declared Lautoka and Labasa as Biosecurity Emergency Areas for Termites. The Declaration prohibits the movement of the termites, its eggs and material containing the termites. Biosecurity Officers are actively monitoring this restriction.

Sugarcane movement from Lautoka and Labasa also require adherence to BAF protocols and farmers are urged to contact the Biosecurity Office for advice.
Anyone found in breach of the Promulgation will be liable to pay penalties.

FBC Fiji Broadcasting Corporation

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Mergers & Acquisitions
Some Comments on the Australian Pest Management Scene

by
Doug Howick

In 1968, during a 9-month Churchill Fellowship international study-tour, I spent a few weeks in Sweden and visited the offices of a major pest management company, then called Anticimex Bolagen. Of course, I was intrigued by the name "Anticimex", which I learned meant "against bed bugs", even though in those years, the incidence of bed bugs was of far less significance than it is today. However, the notes from my visit (yes, I still have them) tell me that I also learned that the company was *"a large pest control company, with a staff of about 450 – 500 and an annual turnover of about A$ 3 million ".*

How times change! In those days – the late 960s and early 1970s – the Australian pest management scene was dominated by W A Flick & Company, Houghton & Byrne and more recently in 1965, an emerging Rentokil Pty Ltd had escalated its Australian presence by the acquisition of Powell's Pest Control, Houghton & Byrne and several other companies. In 1961, the blending of two other family businesses resulted in the formation and development of Amalgamated Pest Control. But Flick was still the leader!

As a result of its foresight and ethical management standards, Amalgamated grew to become another major player in our industry, providing high quality pest management services to both its commercial and residential clients. When the Flick family sold out in 1986, Amalgamated then became the largest privately owned pest management company in Australia. **As of September 2016, that situation has changed dramatically!**

In 2013, Anticimex acquired ISS Hygiene Services and Flick Pest Control, creating an international pest control company. The combined group then had more than 3,000 employees serving around 2.2 million customers. Thus, in Australia and New Zealand, Anticimex joined forces with Flick Pest Control, becoming known as Flick Anticimex and their commitment to continued growth was demonstrated by a regular stream of further acquisitions as follows:

- March 2014 ─ Goode Pest Control
- September 2014 ─ Heritage Pest Control
- February 2015 ─ The Enviropest Group – then the third largest in Australia
- March 2016 ─ Pestec Termite & General Pest Management
- March 2016 ─ Somerset Pest Control
- April 2016 ─ Sherry's Termite & Pest Control
- June 2016 ─ Top End Pest Control
- **… … and now the big one! September 2016 ─ Amalgamated Pest Control.**

There is some nostalgic irony in the fact that when Flick and Co first extended its operations to Queensland in 1924, they rented a corner of the office of Norris Agencies ─ one of those two family businesses which, in 1961, merged to become Amalgamated Pest Control. It is also interesting to note that the strategic expansion of Flick Anticimex has now greatly increased its coverage of termite management services in Australia, almost exactly 100 years since William Flick started his first experiments in termite control!

Meanwhile, I'm sure Rentokil is watching.

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