



Why join the Professional Pest Management Association of B.C.?

Consider the member benefits

- ∞ Admission to the Annual General meeting and a copy of the proceedings. The AGM has gained a reputation for strong agendas and interesting speakers
- ∞ An established means for communication amongst your professional peers
- ∞ Collective voice for advocating the pest management approaches you believe in: see our mission statement
- ∞ Your copy of "Pesticulars" the popular PPMA newsletter, published twice a year, including the AGM proceedings
- ∞ A web site containing topical items on pest management in BC: www.ppmabc.ca
- ∞ A facility to shop your resume in case you are looking for employment
- ∞ A venue for students to talk about their research
- ∞ And ... the lowest membership fee for any professional organization ... *on the planet*

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President's Message:

It is a privilege to serve as your PPMABC President for the year 2004. When I took early retirement from BCMAFF in 1997, I had no idea that worldly concerns and responsibilities would continue into the 21st century. But here we are, almost through the first decade and things seem to be getting worse rather than better almost everywhere you look. The disastrous Iraq war that turned out to be a colossal miscalculation; unprecedented hurricanes destroying Caribbean countries; here in Canada, BSE and avian flu disrupting agriculture; and everywhere, the poor get poorer and the rich get richer. In B.C., we have the dubious distinction of having Canada's greatest gap between the wealthiest 10% of families and the poorest 10%, with the wealthiest having a mean wealth of \$1.6 million and the poorest having a negative wealth as they owe more than they own. On the world stage, the poorest countries still can't feed, clothe or educate their people while in countries like Canada, huge sums are wasted on the never-ending cascade of new technology that becomes obsolete and pollutes the landfills a few months down the road.

What does this have to do with pest management, you might ask. Several things, as it turns out. First, you needn't worry about being in the top 10% of wealthy Canadians. If you work as a private pest manager

servicing the agriculture industry, you will be a lot closer to the bottom 10%. But not to worry, most wealthy people just spend their money on unnecessary luxuries anyway. However, it does create a problem when it comes to attracting new recruits to the pest management wars. As Past Present Jim Matteoni stated in his message last year, there is going to be increased demand for trained biologists to manage the plant and animal pests moving around the globe in ever increasing numbers. Will they be employed by government agencies or will they have to eke out a living one contract at a time? Here in B.C., the trend is to reduce the number of government employees able to directly interact with the public. Nowadays, government extension agents are about as common as zebras on B.C. farms. (Some still sneak out to farms when their supervisors aren't looking!) Of course, you can always consult the government website where you will be able to review documents from some far off kingdom such as Ontario or California. In fairness though, the government phones are still answered by real people, unlike many large corporations where you get to play press a number to select something that sounds remotely close to what you want to know. All of these wonderful technological advances to help the rich get richer while the poor stay unemployed.

At our 2005 AGM in January, we are planning symposia on two of the big stories in pest management in 2004, namely avian flu and sudden oak death (SOD). Most of us watched from the sidelines as the avian fly

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epidemic and eradication program in the Fraser Valley unfolded during the summer. To me it seemed like the authorities were learning as they went while pretending to know what they were doing all the time. (It must be a rule, similar to the one that says you must stick magnets on your fridge door, that top managers must be decisive and never, ever admit they were wrong.) We hope to mount a balanced symposium that will allow all sides to be heard. SOD is another topic that is not without controversy. Is it really a serious disease or is it just being blown out of all proportion? What role do politics play in these quarantine issues? Sometimes, we hear that boundaries between countries no longer exist. And then along comes BSE and no live cattle can cross the border until after the U.S. election. Why should politics decide scientific issues?

One final rant from an old geezer who spends too much time working out in the field contemplating the downward spiral in civility and common decency. The city of Surrey recently refused to compensate a business then a city employee using a grass trimmer broke a glass door. Surrey's rationale was that it was cheaper for them to refuse all compensation claims if they felt they could win in a court proceeding by claiming that they had taken normal precautions if they felt they could win in a court proceeding by claiming that they had taken normal precautions. Thus, we have lawyers advising cities on how to stiff citizens who have legitimate claims. They know that the average Joe Blow hasn't the time or money to fight city hall, but if they do, guess who gets the lucrative job of defending the city? The same scenario explains why politicians and senior bureaucrats never say they are sorry or admit to making a mistake.

Hope to see you all at the AGM. It should be a rousing good time!

Elections

Election time is upon us again. Under the changes that occurred with the PPMABC board electoral schedule, not all positions expire this year. A brief letter outlining who is running for the available positions will be sent out at the beginning of November. Be sure to check your mailboxes and make your voice heard!

Reflections on the Professional Course Component of the MPM Program

Jim Rahe

I retired from SFU at the end of August this year. Retirement is an opportunity to begin a new career, and I am finding it rejuvenating and exciting. After a few weeks away from the day-to-day trivialities of Departmental politics came an appreciation that I was also leaving a most rewarding career. As a professor at SFU, I had the opportunity to research answers to

questions of personal interest and social importance. I had the opportunity to empower bright and inquiring young people with knowledge, and to work with them in developing their skills of inquiry. I was largely my own boss. And I got paid very well.

I was also fortunate to have been associated with Simon Fraser's Master of Pest Management program from its inception. This unique program blended the basics of graduate education and research with exposure to real world pest problems and the professionals who develop and communicate the methodologies for their management. The fact that most MPM graduates have gone on to rewarding careers in pest management attests to the value of the program. MPM graduates are research scientists, pest management specialist at Provincial, State, County and Municipal levels of government, consultants and private entrepreneurs.

The success of the MPM program derived from collective efforts of 10-11 SFU faculty and staff working in partnership with more than 150 professional employed outside the professional courses (the "summer courses"), as members of graduate student supervisory committees, and in some instances, as sessional instructors of graduate courses at SFU. Many who read Pesticulars are MPM graduates and know from their own perspectives the essential contributions of these people to the success of MPM.

From my perspective, I recall an organizational meeting at SFU in the early '70's at which Bryan Beirne presented the concept of MPM to a small group of BISC faculty. This group included Bryan and six others who had come from the Agriculture Canada Biological Control Unit at Belleville, Ontario, along with four who had been hired to broaden the research base of that group after it arrived at SFU. These four included John Borden, Peter Oloffs (deceased), Richard Sadler (left SFU in the early '80's), and an impertinent young biochemist/plant pathologist from a farming background in Indiana. The impertinent one asked in that meeting how a group of academics with little experience with agriculture and forestry practice could expect to offer a practical could expect to offer a practical program in pest management. Bryan's reply was that the practical expertise would be provided by outside professionals. And so the MPM program began. It wasn't an easy start. The evolution and ultimate success of the professional course component of the program owes much to the efforts of many. In understanding how the professional course component developed, the contributions of John Borden, Peter Belton, and Manfred Mackauer of SFU, and H.R. MacCarthy, Harold Madsen and Dave McMullan of Agriculture Canada merit particular attention.

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From the beginning, John Borden took a leadership role in the organization and offering of the forest pest management course, and was a catalyst regarding organization of the overall professional course program. John, Peter and Manfred were the first to commit to development, organization and offering of the courses which came to be known as Forest Pest Management, Urban and Industrial Pest Management, and Management of Animal Disease Vectors. Harold Madsen and Dave McMullan were appointed as adjunct professors to organize and offer a course in orchard Pest Management. H.R. MacCarthy joined SFU as Director of the MPM program following his retirement from the Vancouver Research Station of Agriculture Canada, and also started the course that eventually came to be known as Farm and Specialty Crop Pest Management.

It was Mac who dragged a reluctant Jim Rahe along with him during the first couple of years of the Farm and Specialty Crop Course. Reluctance of faculty to commit to the summer courses wasn't restricted to me. Organization of the summer courses was perceived as demanding, time consuming, an intimidating opportunity to show one's limited knowledge of the applied aspects of pest management, and a major interference with research during ones' summer semesters. But during those first couple of years with Mac, I discovered some wonderful tradeoffs. Here was an opportunity to get to know talented and committed professionals working directly with pest problems. Here was an opportunity to travel and live for a few weeks with enthusiastic and focussed young people. Here was an opportunity to learn about how diverse specialty corps were produced, and the significant pest problems affecting these crops. Here was an opportunity to synthesize a comprehensive understanding of the biological, sociological and economic factors that affect both crop production and pest management. And so I discovered what it was that attracted truly exceptional students to this unique program. Being involved with these courses in subsequent years, I saw the dynamics of pest problems and pest management practices. And I got paid for doing this!

By naming only a few of the people who have played key roles in the development of the MPM professional courses, I hope not to offend any of the more than two hundred others who have served as guest instructors in these courses. All of these many people have been significant in the success of MPM, and the success of graduates of this program. They can and should take pride in what they helped accomplish through this program. As I retire from SFU and reflect on the rewarding and satisfying career that I enjoyed there, it is humbling to realize how much MPM gave to me. And continues to give. The people that I can't know as guest instructors, and the knowledge and

perspectives that I gained from them, these endure. Thank-you.

Lyme Disease

Jim Wilson

Lyme Disease (more correctly called borreliosis), a potentially devastating tick-borne disease, is alive and well in BC and most of Canada.

The problem is that most people don't know this. Consequently, people are not taking the proper precautions to protect themselves when outdoors, and doctors are not diagnosing that mirror many other diseases and as such has been in some cases improperly diagnosed as Multiple Sclerosis (MS), Lupus, Chronic Fatigue Syndrome, Crohn's Disease, various forms of arthritis and many other diseases.

One example of this is Tom Grier, a microbiologist/immunologist who in 1990 was diagnosed with M.S. He eventually lost the use of his arms and legs, ending up wheelchair bound. With his background in science he studied his diagnosis and after some time began to question if it may be Lyme disease instead. He didn't have any recall of a specific tick bite nor did he recall the classic bull's eye rash associated with the tick bite. Delving further he discovered that most people with Lyme disease did not recall a bite nor did they have the rash. The tick is only the size of a poppy seed when in its nymphal stage, the most common disease transmitting stage.

Mr. Grier had his blood tested. They used the ELISA (Enzyme-Linked Immunoassay) blood test. His tests were negative but he recalled reading that these tests were quite unreliable for Lyme so he ordered the more specific Western Blot IgG/IgM blood test. To his doctors surprise he was positive for Lyme. Months of antibiotic treatment followed. He regained full use of arms and legs and the original diagnosis of MS is behind him.

In Canada we use the ELISA or similar tests and will only go to the Western Blot if a positive first (ELISA/IFA/EIA) test is garnered. The Western Blot is the test most preferred but even it when combined with the ELISA is only 30% accurate. Not good odds if you are sick. Because of this inaccuracy blood tests are not to be used to diagnosis Lyme according to the Centers for Disease Control in the US. Diagnosis is to be clinical (based on symptoms and history). This is where research that is not being done is dearly needed.

In order for doctors to be able to make the "clinical" diagnosis they have to know if the patient has been in a Lyme endemic area. Most doctors do not know where Lyme is endemic as only spotty research has been done in Canada. Most of where researchers

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looked they found it but information is not widely available within the medical community.

Since 1975, Lyme spread from a cluster of cases in a town called Lyme, Connecticut to over 23,000 cases confirmed each year in the US and it is found in most states. Lyme is estimated to be underreported 10 fold putting the number of cases at between 1.5 and 3 million cases since 1975.

In Dutchess County, NY alone there were 12,500 cases confirmed in the past 15 years. There is no reason to believe that the same scenario won't unfold here if left unchecked.

It has been confirmed that migrating birds transport ticks potentially to any region in Canada.

Here in the west, the common vector is the *Ixodes Pacificus* (Western Black Legged tick). The hosts for the tick are deer, white footed mouse and other small mammals. Not all vectors have been identified. *Ixodes scapularis* is the most common vector in eastern and central North America. This tick has been discovered as far north and west as Slave Lake, Alberta. *Ixodes muris* has shown to be a weak vector of Lyme disease and more research is needed. Even the common rabbit tick can transmit Lyme to humans. Most ticks prefer to live in wooded areas, low growing grassland, seashores and yards. Depending on the location, anywhere from less than 1% to more than 90% of the ticks are infected with Lyme spirochetes (*Borrelia burgdorferi*).

In the US, they have developed a feeder for deer which requires the deer to stick their necks through in order to get food. As the deer's head and neck touch the feeders rollers, a pesticide is applied from the rollers. The feeders are placed in areas with high deer populations. The effectiveness has not yet been measured.

Canada needs to do major research covering many aspects of this disease if we are to avoid the health disaster that has befallen the US. One treating doctor in BC has several hundred Lyme patients already, most of whom have had their blood sent to various labs in the US for testing. Most tested negative initially in Canada.

Tick control must be addressed. More field work is necessary to identify the vector endemicity of all areas. Treatment of the human cases is difficult if diagnosis is not made early. Better treatments must be developed. Testing humans for the disease is poor at best even at the most competent labs so research is needed there.

The potential cost to the health care system and families by not spending ample research dollars now is unprecedented in Canada. We have the eastern US statistics to show how serious it is and we know it spreads quickly. Any delays could be disastrous.

For a thorough understanding of this devastating disease and its symptoms visit the Canadian Lyme Disease Foundation website at www.canlyme.com.

H.R. MacCarthy

Although the MacCarthy lecture series will have already taken place by the time readers receive this edition of Pesticulars, we wanted to remind readers of who this lecture series' namesake was.

Dr. MacCarthy, known by friends and colleagues as Mac, was a huge contributor to agricultural research. After serving with the Canadian Infantry Corps, Mac returned to Canada and achieved his B.A. in Zoology from the University of British Columbia, then went to the University of California, at Berkeley, where he was awarded his Ph.D.

He came back to British Columbia, and worked in Kamloops until 1955, when he became Officer-in-Charge of the Field Crop Insect Laboratory at the University of British Columbia. By 1959, Mac was the Head of the Entomology Section of the Vancouver Research Station; his work helped to the near-complete control of potato leaf roll virus (transmitted by aphids) in the province.

From 1974 on, Mac was an adjunct professor at SFU's Centre for Pest Management. After retiring from Agriculture Canada in 1976, he became a sessional lecturer at the university and acting director of the Centre for Pest Management for more than two years.

Through his teaching and being on numerous supervisory committees, Mac won the respect of his numerous students. He spent a large part of his time helping students whose native language wasn't English, learn how to write well and produce clear, well-laid out theses. It was in appreciation of all Mac's hours helping and supporting students that his students established the endowed lecture series where guest lecturers could share their knowledge on pest management with an interested audience. Mac attended each instalment of the lecture series, up until a few years ago, when his health prevented him from participating in the sessions.

Sadly, on April 7th of this year, Dr. H.R. MacCarthy passed away, leaving a huge void in the field of entomology.

Announcements

- ∞ Joseph Swartz, a recent M.Sc. student at SFU, requests help from fellow entomologists and interested parties. If anyone has seen a large number of boxelder bugs, ---, or knows of a

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location where they can be observed and collected, please contact Joseph. He is willing to travel to your location and remove the insects from your premises.

Articles

- ∞ **Pesticulars** is always looking for pest management topics to publish. If you or know of others who have information to relay, exciting research to share, or upcoming events that you would like posted in our Spring Issue, please contact Melanie Hart: greenmellybean@yahoo.ca

PPMABC 2005 Annual General Meeting

January, 25th, 2005
Halpern Centre, Simon Fraser University

The topic of this year's AGM will be:

Crisis Management: Science or Politics

Registration Fee (includes lunch and coffee): \$15

An excellent time to renew your membership fees, or become a new member.

Regular members:
Student members: \$15

STUDENTS! You could win \$100

Students are always welcome, and encouraged, to present their research at the Annual General Meeting. If you have information that you wish to present, please contact Eloise Rowland, our student representative, at erowland@sfu.ca. Talks last 12 minutes, and 3 minutes are allowed for questions. Because time is limited, please sign up as soon as possible.