

## Submissions to the Draft Second Edition of the Code of Practice for the Control of Bed Bug Infestations in Australia.

The following are the submissions received while the Draft Second Edition of the Bed Bug Code of Practice (CoP) was open for public comments; thank you to those who contributed. The name of the person is followed by their affiliation and their comments in italics. The comments have largely been copied from the original email, with salutations removed, some minor grammatical and spelling errors corrected, and the occasional clarification added. Following this is a reply by the CoP Working Party (indicated as '[WP: ...]') to the submission and whether or not the Draft Second Edition CoP was modified accordingly.

Thank you again for those who have contributed to the continuing evolution of the Australian Bed Bug Code of Practice.

The following provided submissions to the Bed Bug Code of Practice, click on the name to go directly to the submission.

**Graham Hellier**, Rapid Solutions, NSW.

**Gary Byrne**, Rapid Solutions, NSW.

**John Elder**, Elders Pest Control, Qld.

**Rick Cooper**, Coopers Pest Solutions, USA.

**Upali Mallawaarachy**, NSW Department of Housing, NSW.

**Frank Visser**, Pest Management Association of New Zealand.

12/July/2007

**Graham Hellier**, Rapid Solutions, NSW.

*Title page: Delete 'Stephen L. Doggett'. The Code is the work of a Committee not Stephen. While recognition must be given for his input his name should not be on the cover as if it is all his work. This would be misleading.*

[WP: The CoP should always be lodged with National Library and have an ISBN. This provides a certain degree of international copyright protection and will catalogue the document on international databases, ensuring greater distribution. For lodging a document, it is critical that the senior author or authors are listed on the front cover to facilitate literature databases and search engines. This in no way detracts from the broader input of the working party

whom are acknowledged within the CoP. It is normal for any document or book containing many different authors, that the principle author/s or editor/s are listed on the front cover, which rightly acknowledges that they have been the driving force behind the document. A document listing authors that are well known and respected within the industry can only strengthen the document. An anonymous publication can become anonymous, and suggest that no one is willing to be associated with it. For these reasons, all WPs must be encouraged to include the senior author/s or editor/s on the front cover of their respective CoPs. The term 'Principal Editor' has been added after Stephen Doggett's name on the copyright notice page.]

*Section 9.1. Pest Managers, add to end of section: "Such courses have been appraised and are provided by an RTO in Australia and New Zealand."*

[WP: There have been a variety of bed bug courses available and it would be impractical and inappropriate to list these in the CoP. In the future, it is the intention to list those courses on the bed bug web site that follow the curriculum for a bed bug course as defined by the WP.]

*Section 9.2. Accommodation/Housekeeping Staff, change second paragraph to: "It is often in the interest of the Pest Manager and their organization to help arrange training for the accommodation/housekeeping staff. A bed bug aware client will then normally appreciate the difficulties involved in eradication and become more likely to cooperate. At least one RTO has had a course that is mapped against the CoP and appraised for PestCert compliance. This course is available to the accommodation industry staff in both Australia and New Zealand."*

[WP: See previous reply.]

*Section 10.1.4. Warranties, third line, change the text: "...a written warranty,..." to "...a written service warranty,..."*

[WP: This change has been made.]

*Section 14.5. Bed Bug Sniffer Dogs, first paragraph, second line, Re: "It is claimed that...any Pest Manager". Not true unless the room was completely empty of all furniture etc. A well trained dog and handler will take much longer than 1.5 minutes.*

[WP: This change has been made.]

*Section 14.5. Bed Bug Sniffer Dogs, second paragraph, second line, change sentence to: "Dogs must be trained in accordance with the Pest Detection Dog Code of Practice (PDDCoP)."*

[WP: See notes below on the changes made to this section.]

*Section 14.5. Bed Bug Sniffer Dogs, second paragraph, third line, delete entire sentence, the comment being: "The PDDCoP in final draft and after Public input will be published by the AEPMA and should be available about the same time as the CoP. It details training, certification and retaining requirements for both the dog and its handler."*

[WP: A reference to the PDDCoP has been made.]

*Section 14.5. Bed Bug Sniffer Dogs, fourth paragraph, change the paragraph to: "Hoteliers may be concerned that a dog could pose a possible image problem. The public perception (albeit incorrect) could be that the sniffer dogs are in the facility to detect drugs or even bombs and thus some [hotel] managers may be reluctant to have them used. On the other hand dogs have proved very popular with hotel etc when they have whole floors off-line and have been used very successfully in public transport save large amounts of money. A Detector dog has been sent to New Zealand after it and the Handler were train in Australia and is in big demand by the accommodation industry. Any concerns are quickly outweighed by the cost savings. Old Rail has and continues to use a sniffer dog for this very reason. The dog has been found to be better than the PCOs."*

[WP: The section titled 'Bed Bug Sniffer Dogs' has been changed to Bed Bug Detection Dogs to be in accordance with the Pest Detection Dog Code of Practice (PDDCoP). As bed bug detection dogs are not widely used in Australia, this section has been placed as a subsection of Section 14.4. As the PDDCoP is in development, the WP decided to reduce this section to a basic introduction of the technology, with a reference to the new code and leave the detail to the PDDCoP. Once the PDDCoP has been finalised and released, a reference to the web site will be included within the BBCoP.]

*Section 15.1.2. Hygiene, last sentence: Delete "however such devices are yet to become available in Australia", as this treatment is now available in Australia.*

[WP: Currently there is no efficacy data available on these devices available and hence these can not be included in the CoP. However, the WP has contacted one company that is able heat treat furniture and has arranged for a scientific evaluation of the treatments. Once efficacy has been demonstrated, the technology and company contact details will be included within the CoP.]

*Section 15.1.3. Physical Removal, second paragraph, first sentence: Delete the word 'disinsection' as no such word exists. Disinfect means what you are trying to say and will be understood by readers.*

[WP: 'Disinsection' is a term that has been long used in the field of entomology (since at least the 1960's), particularly in relation to eradicating insects on aircraft for biosecurity and quarantine purposes. For example, a search on the US Armed Forces Pest Management Board literature database ([www.afpmb.org](http://www.afpmb.org)) found 363 papers that used the term. As 'disinsection' is unambiguous and the meaning is obvious, the term has not been altered.]

*Section 15.1.3. Physical Removal, second paragraph, first sentence, suggested insertion at the beginning of the last sentence: "However, care should be taken not to let water come into contact with the electrical components."*

[WP: These are basic safe work practices that all pest managers should follow. As they are basic safe work practices, the WP felt that it was redundant to include this in the CoP.]

*Section 15.2.2. Available Registered Products, under the table it is suggested that the following should be added: "The APVMA website ([www.apvma.gov.au/registration/registering.shtml](http://www.apvma.gov.au/registration/registering.shtml)) should be checked from time to time for new registrations of chemicals and formulations for bed bug control."*

[WP: This is already in Appendix E.]

*Section 15.2.3. Insecticide Efficacy, last paragraph: the following addition is suggested, "There is a possibility of staining when using some formulations of Pirimiphos-methyl. Users should read and take advice from the product label."*

[WP: Under Section 15.2.1. it is already stated within the CoP that the insecticide label must be consulted both to ensure that it is currently registration for bed bug control, and for use patterns and instructions. It was thus felt not necessary to include specific references to certain products.]

Section 18.4. The Traveller: *Graham Hellier notes that, "I travel almost weekly throughout Australia, New Zealand and Asia. Also have trips to Europe. I have to date successfully used this method, when fellow travellers have not been so lucky."*

[WP: This is a comment rather than a proposed change and so no action is necessary.]

*Section 19. Bed Bugs in the Disadvantaged: title should be changed to "Bed Bugs and the Disadvantaged".*

[WP: This section is now titled 'Extreme bed bug infestations'.]

*Section 20. References: Under reference 'Doggett SL. 2005', delete "(see [www.bedbug.org.au/more\\_info.htm](http://www.bedbug.org.au/more_info.htm) for ordering this publication)" because this is an advertisement and should not be included unless the same is done for all the publications.*

[WP: For some time this publication was the most accessible for the Pest Manager in terms of information on the history and biology of bed bugs. Recently, Usinger (1966) was reissued by the ESA at a cost of around \$US270 and so this information is again available, although at a considerable cost. The term 'for ordering this publication' has been removed, although for referencing, the web address has been left in as it is not a registered publication and hence would not be found on literature databases.]

*Section 20. References: Under reference 'Myamba et al. 2002', in the title, 'bednets' should be 'bed nets'.*

[WP: As the paper was published with 'bednets' as a single word, it would be misquoting the publication to have it as two.]

*The PMANZ would like to see the CoP labelled as an Australian & New Zealand Code of Practice if at all possible. The bedbugs in New Zealand and the methods of control are much same as for Australia and the countries too small to do a CoP of its own. That's why we included them in the PDDCP.*

[WP: For ease of management of the CoP and retaining of copyright, it was felt that only Australia should be included. Other Pest Management associations are welcome to use the CoP as long as the copyright notice is followed.]

*'Bed Bug' should be one word as the Macquarie Dictionary has spelt it singular.*

[WP: Most texts and entomologists are now spelling it as two words, see the compelling argument for having 'bed bug' as two words by Snetsinger, R. (1999). Chapter 9. Bed Bugs & Other Bugs. *Handbook of Pest Control Mallis, 8<sup>th</sup> Edition, GIE Media.* pgs 393-424.]

*On the APVMA home page <http://www.apvma.gov.au/index.asp> there is an option to [Search PUBCRIS for Registered Chemicals](#). This search has the option to put the Disease/Pest directly into the search engine and lists all products registered with the APVMA to control those pests.*

[WP: The WP is aware of this and in Appendix E, the CoP currently states that the APVMA should be readily consulted for a list of the latest registered insecticides.]

12/July/2007

**Gary Byrne**, Rapid Solutions, NSW.

*Section 2. Introduction to the first edition, paragraph 2, 1st sentence, 2<sup>nd</sup> line: change "exponential level" to "exponential rate".*

[WP: This change has been made.]

*Section 9.1. Pest Managers, paragraph 1, line 6: delete extra 'and' in "...how infested beds and furnishings and..."*

[WP: This change has been made.]

*Section 9.1. Pest Managers, paragraph 2, line 3: change "as defined by previous sentence" to "as defined by previous paragraph".*

[WP: This change has been made.]

*Section 13.1. Pest Manager Preparation, last dot point under first paragraph: Change "Advice that the client will expect follow up inspections after the initial inspection and treatment" to "Advice to the client that follow up inspections after the initial inspection and treatment will be necessary."*

[WP: This change has been made.]

*Section 14.4.2. Residential, end of paragraph add: "Also ask if they have slept away from home recently to indicate possible spread of problem."*

[WP: The sentiment of this has been added with some rewording.]

*14.4.3. The Inspection Process, first paragraph, second sentence: Change, "When done so, these should be..." to "These items should be..."*

[WP: This change has been made.]

*Section 15.1.4. Heat, paragraph 4, first sentence: change "promulgated" to "declared".*

[WP: The termed 'claimed' was used.]

*Section 15.1.5. Steam, second paragraph, first sentence: change "any" to "are".*

[WP: This change has been made.]

*Section 15.1.5. Steam, third paragraph, first sentence: change "per" to "with".*

[WP: This change has been made.]

*Section 15.1.6. Cold, seventh sentence: add "sufficiently" to, "...several days for the centre to cool sufficiently to kill..."*

[WP: This change has been made.]

*Section 15.2.3. Insecticide Efficacy, third paragraph, second sentence: change "concomitantly" to "concurrently".*

[WP: This change has been made.]

*Section 15.2.3. Insecticide Efficacy, fourth paragraph: Change to "At the time of*

*writing of this CoP, there are no insect growth regulator (IGR'S) registered..."*

[WP: This change has been made.]

*Section 15.2.4. Insecticide Resistance: Correct first sentence, "Overseas investigations from overseas", i.e. delete 'from overseas'.*

[WP: This change has been made.]

*Section 18. Prevention Measures, first line: Change "For practical reasons..." to "In practice".*

[WP: The current wording is considered more accurate.]

*Section 18.1.3. Guest Linen & Bedding: Break up sentence, "All linen should be provided by and laundered by the accommodation facility or contractor, which should be in hot water, preferably on a daily basis." to, "All linen should be provided by and laundered by the accommodation facility or contractor. Laundering should be in hot water, preferably on a daily basis."*

[WP: This change has been made.]

*Section 18.1.6. Bed design, last paragraph, first sentence: add "and bed base" so that the sentence reads "In motels the bed head is usually a separate component to that of the mattress and bed base, and often firmly fixed to the wall."*

[WP: This change has been made.]

*Section 18.1.9: Furniture Purchases, section sentence: change to read "Hotels should not purchase or use second hand mattresses."*

[WP: This change has been made.]

*Section 18.1.10. Ongoing maintenance, third sentence: change "seal" to "sealant".*

[WP: This change has been made.]

*Section 18.1.12. Preventative Insecticide Applications: change paragraph to read, "The duration of protection afforded by the presently registered insecticides can not be accurately predicted in all circumstances. If insecticides are used without appropriate regard to product rotation, insecticide resistance can develop. Due to this lack of information and to the fact that relatively few insecticides are available for bed bug control, this CoP does not currently recommend that insecticides should be used in a preventative program.*

[WP: A change has been made to the CoP, however 'product rotation' in the above has been replaced by 'mode of action', as different products can have the same mode of action and thus belong to the same resistance class.]

*Section 19. Bed Bugs in the Disadvantaged, first paragraph, third sentence: Change to, "Usually the tenant does not have the economic capability to pay for control. Some groups such as those challenged by disease, dysfunctional conditions, mental illness etc. may not recognise an existing problem nor are they likely to have sufficient knowledge to recognise the presence of bed bugs. In multistorey dwellings,..."*

[WP: The current wording was considered adequate.]

6/Aug/2007

**John Elder**, Elders Pest Control.

*Section 14.5. The trials I have undertaken with the dogs prove beyond doubt that they can detect first instar nymphs bed bugs. This will be demonstrated at the Rapid Conference in front of 500+ delegates. I am very disappointed that I wasn't consulted by the Working Party in regards to this section of the code of practice. In the hundreds of hotel rooms I have inspected so far not one hotel guest has ever seen the dogs in the building and our main hours of operation is from 8am to 2pm.*

[WP: As the research assessing the efficacy of bed bug pest detection dogs has not been undertaken in an independent scientific rigorous manner and not published in a peer review journal, than this was stated to demonstrate that the CoP is being fair and equitable, and that the WP is acting with due diligence and independence. The reality is that one person's experience does not constitute an independent scientific evaluation. Regarding the consultation process, the WP undertakes changes within the CoP, which is then open for public comment for at least 2-3 months before being finalised. This process gives everyone a more than adequate opportunity to provide comments before the document is finalised. The WP notifies interested parties of the draft document through

email, conference presentations and via industry publications, and thus the industry is widely consulted before any edition of the CoP is finalised. Naturally the WP greatly appreciates the effort of those who take the time to provide feedback.]

*Section 14.5. Bed Bug Sniffer Dogs, fourth paragraph: In regard to [this] section, our firm is disappointed that its K9 Division was not consulted by the Code of Practice Working Party. The paragraph which we are most opposed to is as follows: "A significant disadvantage of sniffer dogs is that many Hoteliers are concerned that they could pose a possible image problem. The public perception (albeit incorrect) could be that the sniffer dogs are in the facility to detect drugs or even bombs and thus some managers are reluctant to have them used."*

*The above statement adds no weight to the code whatsoever and we struggle to comprehend its inclusion. In the hundreds of hotel rooms we have inspected – mostly 5 star resorts - to date not one hotel guest has ever seen the dogs in the buildings and even most resort staff themselves are unaware of the dogs' presence. And, to suggest in paragraph two of section 14.5 that live bed bugs be taken into a hotel room to give the dogs a 'control find' is utterly ridiculous. On-going training is important but should never be conducted in this fashion.*

*We have no idea who would have provided the Working Party with this sort of information but it has obviously been someone who is not in touch with recent develops in bed bug detection. We trust these comments shall be omitted."*

[WP: Any CoP must be independent about the inclusion of any technologies and must discuss the inherent weaknesses as well as benefits to remain impartial. The limitations of PDDs include:

- a. The use of BBDDs is not universally accepted. Some in the accommodation industry are concerned that if guests and/or staff see the dogs, that the dogs could be construed as being present to detect drugs or bombs. For this reason the largest accommodation group in Australia refuses the use of BBDDs in their facilities. This information is important for pest managers who may be considering investing in this technology; if the client does not want BBDDs used, then there would be no point in the pest manager purchasing an animal.
- b. Likewise, PDDs would not be used in all facilities, such as in government provided housing. In this case, tenants may consider that the dogs are

present to undertake drug related investigations (drug dependency can be high amongst this social group).

- c. A certain percentage of the community is allergic to animals and can develop respiratory distress when exposed to animal allergens. The use of PDDs in motels could represent a litigation risk if a guest subsequently develops a severe adverse allergic reaction such as anaphylaxis. (Food for thought; does the motel have a legal responsibility to mention to the guests that dogs have been used in the motel room to avoid possible litigation in the event of a health related problem? Or more importantly, should the PDD handler suggest that the hotelier advises guests that dogs have been used, otherwise the PDD would not be used? In reality, the latter would be best practice! Perhaps it should be suggested that the room must be vacuumed thoroughly after inspection by the PDD to reduce the possibility of an allergic individual developing a severe anaphylactic reaction.)
- d. BBDDs are not infallible and can fail, and some of their limitations have now been published (Cooper R. 2007. Four legged bed bug detectives. *Pest Control Technologies*, August: 76-78). For example, as stated by Rick Cooper (Rick Cooper is one of the leading figures and educators in bed bugs and their control in the US and a user of BBDDs), BBDDs may not detect bed bugs above the height of the dogs (which is after all quite low), they may not detect all bugs and the air flow may mean that bugs are not detected, some believe that the dogs will not detect the bugs if in the middle of the mattress. Quoting Rick Cooper, "...some [Pest Managers] doubt the utility of scent-detection dogs".
- e. Currently there are no independent published scientific studies testifying the efficacy of BBDDs, although this work is under way in the US and should be done in Australia as well, preferably with both bed bug species. This fact must be stated in the CoP to maintain impartiality.

In relation to the following comment *"live bed bugs be taken into a hotel room to give the dogs a 'control find' is utterly ridiculous. On-going training is important but should never be conducted in this fashion."* A quality control (QC) system is part of ensuring any tool is functioning properly and such a system needs to be employed to provide confidence to the PDD handler that the tool (i.e. dog) is functioning as per usual whenever it is employed.

The following is a QC system from the United States (provided by R. Brannon, member of The National Entomology Scent Detection Canine Association, (<http://www.nesdca.com/index.html>)).

"Quality control is one of the most vital aspects of our protocol. Continuous training with live bugs, proofing against false alerts, and always using a

controlled live hide in field settings are part of this. Verification through a live bug controlled hide is done at a minimum of twice daily, and at every inspection. Proofing is done somewhere between daily and at least weekly. Live hides consist of a variety of bugs, from multiple adults down to microscopically confirmed viable eggs alone." Thus the use of live bed bugs in the field situation is considered by some to be a vital procedure with the use of PDDs.

As stated previously, the section now titled 'Bed Bug Detection Dogs' has been reduced with the development of the Pest Detection Dog Code of Practice and specific details are no longer included in the BBCoP.]

30/Aug/2007

**Rick Cooper**, Cooper's Pest Solutions, USA.

*Section 5. Definitions, 'Bed Bug Elimination': The definition of Bed Bug Elimination is based upon not seeing bed bug activity during the final inspection. I do not believe the inability to visually detect bed bugs is a sufficient measure to determine that an infestation has been eliminated. Presumably if the population has been reduced to just a few bugs or eggs then you probably won't find them during the inspection. Instead I would suggest that you need a combination of "no bugs sighted and no new bites" over an extended period of time to conclude with any degree of certainty that the bed bug population has been eliminated. Within my organization we use a 60 day "bug free bite free" period before we are comfortable saying that we have eliminated the infestation."*

[WP: It was decided not to change the definition as most in the WP believed that eradication can be achieved according to the current definition. There was also a concern that the above definition could be used by some in the industry to defend poor quality work and failed treatments. ]

*Section 14.5. Bed Bug Sniffer Dogs: You might want to check into the following website- <http://www.nesdca.com/> This organization has set standards for canine scent detection of insects. You might also want to discuss the importance of making sure that the dog is "proofed" off of all of the items used to house bugs and/or eggs during training exercises. They must be proofed off of dead bugs, caste skins, feces, non viable eggs, containers used to house live bugs and any tape, paper, rubber bands mesh cloth etc that is used to house the bugs.*

[WP: In light of this section in the BBCoP being reduced due to an introduction only as a result of the development of the Pest Detection Dog Code of Practice, this comment has been forwarded to the latter Working Party for consideration.]

*Section 15.1.3. Physical Removal: You might also want to discuss steaming areas whenever possible to overcome the some of the limitations of vacuums. The steam will destroy eggs that were cemented and not removed by the vacuum as well as bugs that are in cracks that could not be pulled out but are exposed to the penetration of the steam. The question becomes steam first and then vacuum or vice versa. My opinion is to steam first and then use the vacuum to remove the eggs and bugs that have been killed as well as caste skins etc. Following the steaming the vacuuming effort should remove many more bugs and eggs because the cement on the eggs should be broken down and bugs cannot actively cling to interior of the cracks & crevices.*

*I think it is important to try and remove as much evidence as possible so that we are not looking at old evidence on subsequent inspection visits.*

[WP: The working party agrees with the above view and much of this information is already included within the CoP. In relation to the order of steam and vacuuming, the WP will await for further scientific testing to validate the process order before inclusion in the CoP.]

*Section 15.1.5. Steam: You may want to discuss the use of a towel over the large steam head attachment this gives you much higher temperatures, greater surface area and reduces the pressure of the steam. The end result is that you can steam larger areas much more efficiently, you get much greater kill with higher temps (~190 degrees Farenheight) and you don't blast bugs off of surfaces because the pressure is so greatly reduced. You may also want to see Mike Potters article in PCT called "Killing them softly"*

[WP: Recently David Lilley (Ecolab) and Stephen Doggett undertook further testing of steam heads with the head wrap in a towel and found exactly what Rick Cooper has observed, and thus the text in the CoP has been altered accordingly. An image of this set up has now been included.]

*Section 15.1.5. Steam: You might want to mention that regardless of which methods that you use in sections 15.1.3-15.1.6 (Physical removal, heat, steam, or cold) all of these accomplish the same thing which addressing insects on contact. These are all very effective and useful methods to use in helping to eliminate bugs and crash populations but still lack any residual effectiveness.*

[WP: This is stated in the introduction to non-chemical control, Section 15.1.1.]

*Section 15.1.6. Cold: Do you think it would be worthwhile to mention Cryonite and the issues associated with the pressure (blowing bugs off surfaces)?*

[WP: Studies undertaken by members of the working party have found that this device can blow about bed bugs without being lethal. Due to this and the fact that published efficacy data is not available, the Cryonite is not included in the Code. It would be impractical to include all devices proposed for the use of bed bug control and the WP feels that it is appropriate to only include those where there is a demonstration of efficacy.]

*Section 15.1.7. Mattress Encasements: I think it is very important to discuss avoiding encasements that have not been scientifically tested. We have observed bed bugs escaping directly through the teeth of a closed zipper, escaping the area where the zipper comes to its final resting position and feeding through material. As a result, in my opinion, you are better off not using an encasement at all if you cannot afford to use one that you know has been tested and works effectively. Otherwise you create a false sense of security.*

*The study that Protect-A-Bed conducted use 100 bugs per mattress replicate with 5 replicates for a total of 500 bugs encased in mattress encasements and then repeated the same for box springs. In total 1,000 bugs (50% 1st instar and 50% adult) were encased in the study with zero escapes after 4 weeks.*

*Finally, you might want to bring out the point that the encasement also has anti-allergen & dust mite features.*

[WP: The WP agrees with the principles mentioned above. Appendix B of the CoP now includes a list of manufactures where the mattress encasement has undergone a comprehensive scientific evaluation and shown effective for the stated claims.]

*Section 15.2.3. Efficacy studies: Look at Mike Potter's article on resistance.*

[WP: Work from Mike Potter's laboratory is quoted in 15.2.4.]

*Section 15.2.4. Insecticide Resistance: Might want to discuss that on both the initial visit and follow up visits mechanical methods such as physical removal with vacuums or destruction with steam should be primary methods that are relied upon with pesticides still playing an important but secondary role due to the questionable effectiveness of their residual activity (again see Mike Potter Article on Resistance).*

[WP: This is already mentioned in this section.]

12/Sep/2007

**Upali Mallawaarachy**, NSW Department of Housing, NSW.

*The main focus of the Code of Practice (CoP) appears to be on hotels and other temporary accommodation buildings where the owner/manager of the property has complete control and responsibility for internal cleaning practically on a daily basis.*

*The management of rental properties are quite different and the CoP does not adequately address the issues unique to such buildings. For example, the owner/manager can ensure the dwelling is free of bugs when let, but it is the responsibility of the tenant to maintain it through proper housekeeping practices.*

*The CoP puts the responsibility back to the owner of the property and not to the tenant. This needs to be rectified.*

*Proposed amendments for consideration:*

- *5.0 Definitions – “Housekeeping” refers to hotel maintenance only. Add housekeeping for tenants.*

[WP: In the definition, ‘housekeeping’ refers to the people responsible and not the process, this was a spelling error and thus ‘housekeeping’ has been changed to ‘housekeepers’.]

- *Section 8 covers the role of pest manager and hotelier. Introduce a section for rental property owner.*

[WP: The Section has now been retitled to ‘The Client’ to cover hoteliers, home owners and tenants, and the text reworded accordingly].

- *9.3 Training – Publications – reference to any fact sheets prepared by NSW Health for occupants in rental properties would be useful in overcoming poor housekeeping practices.*

[WP: None exists on the NSW Health web site].

- *10.1 Pest Managers – section provide advice on professional conduct when dealing with Hoteliers. A similar emphasis should be placed when dealing with residential properties.*

[WP: This section has now been reworded to reflect this point].

*Section covers Pest Managers and Accommodation Industry. A sub-section on rental dwellings should be provided as the issues are quite different to short-term accommodation such as hotels.*

- *14.4.2 The inspection – Residential – The use of the word ‘homeowner’ is misleading. Reference should be made to the occupant.*

[WP: This change has been made.]

- *18.2 Prevention measures – Multiple occupancy residential complexes – The section illustrates the difficulty (compared to a hotel) in treating the infested dwellings and preventing reinfestation. This is the experience of a rental property owner such as the Department of Housing. The CoP should acknowledge this situation. The limit of responsibility of the rental property owner as compared to the Hotelier should be clarified. Hotelier has complete control of the building and the short term occupancy enables frequent inspections and treatment if required. In rental dwellings the internal housekeeping is beyond the control of the owner.*

[WP: This section has been reworded to cover those points mentioned.]

- *19. Bed bugs in the disadvantaged. There is an unacceptable implied meaning that associates heavy infestations with being socially disadvantaged or with behaviours that reinforce stereotypes about socially disadvantaged (such as “a behaviour common amongst these tenants is the tendency to collect items off the street that are intended for disposal”). NSW Health’s media/communication officers may be able to assist to re-express the technical content of the section without these connotations. The reference to Department of Housing should also be removed.*

[WP: According to the experience of the WP members all the severe infestations have occurred amongst the socially disadvantaged. It is accepted that social stigmatisation is best avoided, however the truth must not be ignored as it would be to the peril of the group afflicted. Likewise with the issue of collecting items off the street. ‘Department of Housing’ has been changed to ‘public housing’. The section has been retitled to ‘Extreme Bed Bug Infestations’.]

17/Sep/2007

**Frank Visser**, Pest Management Association of New Zealand.

*Attached is our very small list of products approved for use on bed bugs of Appendix D of the Bed bug CoP. All label claims are very general. They do not approve or disapprove of spraying the bed itself.*

*KeyBan has an even more general label with regard to crawling insects and doesn't specify bed bugs. It specifically has a crack and crevice label use except for exterior use, and I think it would be really pushing the label to treat a whole mattress with this product. ie don't recommend it for that purpose.*

*I have read the CoP right through and I don't think there is any mention of using under blankets, woolrests, or electric blankets as a separator between the freshly sprayed bed and bottom sheet.*

*Don't know about you guys in Oz, but our temperatures get high enough in NZ to cause us to sweat in bed sometimes. (Maybe that is just our romantic natures) Can't say I would like to sweat on a freshly sprayed Ficam W bed without some form of underblanket between the bottom sheet and the mattress.*

[WP: As noted above, the WP considered that it was inappropriate to label the CoP with another Pest Management Association and thus the list of products approved for use in New Zealand will not be included. If a mattress is treated with insecticide, then the mattress must be covered as per label instructions and this is already stated within the CoP. Ficam W is not registered for use on mattresses within Australia.]