



Re: CCA treated timber in school gardens

It has come to BFA's attention that CCA treated timber has been used to construct garden beds and other structures in some school gardens.

CCA treated timber is first on the list of 'Things To Avoid' in the published Introduction to the BFA's Organic School Gardens program. We urge school staff and school garden supervisors to read both Parts 1 and 2 of the Introduction before setting up garden areas, and to notify volunteers and trades people of products, materials or procedures that are to be avoided in school gardens.

Problems with CCA treated timber:

Following the phase-out for all domestic uses of CCA treated timber in the US, EU, Canada, Indonesia and Vietnam, and restrictions on its use in Japan, the Australian Pesticides and Veterinary Medicines Authority (APVMA) conducted a review of timbers treated with copper, chromium and arsenic as a preservative (CCA treated timber) and, as a result, in March 2005, declared this preservative to be a restricted chemical product (RCP) in the public interest.

The APVMA proposed regulations came into effect at the end of March 2006 restricting the uses of CCA for timber preservation because APVMA "were not satisfied that the continuing use of CCA for timber used in structures with which the public (and particularly children) are likely to come into frequent and intimate contact is safe".

Included in the restrictions is: (10.1. iv) "not permitting uses of CCA timber treatment products for timber intended for use as garden furniture, picnic tables, exterior seating, children's play equipment, patio and domestic decking, and handrails".

Page 15 of the APVMA's "Pest Management in Schools" document, published in 2009, states: "The APVMA has restricted the use of copper chrome arsenate (CCA) timber treatments, which are no longer permitted for timber intended for use as exterior seating, decking and children's play equipment (see http://www.apvma.gov.au/chemrev/downloads/arsenic_summary.pdf)."

Common sense would dictate that the APVMA restrictions would also apply to garden beds (as they do to sand pits) because this timber can leach arsenic (a known carcinogen) into compost and soil for up to 20 years. There are a number of factors that affect the amount of arsenic leached from treated timbers, and some species of food crops can absorb high levels of arsenic.

As young children have a tendency to put their fingers in their mouths, and tend to be less careful about washing their hands, they can ingest significant amounts of leached arsenic from the surface of CCA treated timbers. Children are, of course, more vulnerable to all pesticides because their organs are still developing and young children eat more food per kilogram of body weight than adults do.

The regulations proposed by the APVMA allow the use of CCA treated timber for 'structural timbers' and the timber industry has included retaining walls in that description. However, the APVMA Review (page 11) clearly states, structural timbers "where frequent contact is unlikely, and the level of exposure and risk, is low".

Once installed:

Research by the US EPA (in 2005) found that penetrating sealants can reduce, but not eliminate, arsenic migrating from the treated wood. The data show sealants that can penetrate wood surfaces are preferable to products such as paint, because paints and other film-formers can chip or flake, requiring scraping or sanding for removal, which can increase exposure to arsenic.

US research (Gray and Houlihan, 2002: 4-6), has found that arsenic levels on CCA-treated wood remained high for 20 years, and that timber had to be re-coated every 6 months, making the maintenance of this timber to reduce students' exposure a tedious and expensive process. The only safe solution is to remove CCA treated timber from areas where children are likely to have regular close contact with it. <http://www.herinst.org/CCAtimber/recommendations/insitu.html>

Despite the APVMA Review's recommendations coming into regulation more than four years ago (see http://www.apvma.gov.au/products/review/docs/arsenic_summary.pdf), and despite the availability of newer, safer methods of timber preservation, the Australian timber industry has disregarded the restrictions and continued to supply CCA timbers for unsuitable purposes. The APVMA authority extends only to the application of chemicals and enforcement of the regulations is left to various state authorities.

As a consequence, Australian children are continuing to be unnecessarily exposed to arsenic. We recommend that you advise parents of the restrictions recommended by the APVMA and ask them to express their concern to their local members of parliament to ensure that industry complies with APVMA regulations and recommendations, in the interests of children's health and safety.

Suggested wording for an e-mail from schools and parents to governments:

Further to the continued use of CCA timbers in the construction of school gardens and structures in frequent contact by children, I/We request that Australian federal and state governments act urgently to enforce the regulations for CCA treated timbers that were recommended by the Australian Pesticides and Veterinary Medicines Authority (APVMA) in March 2005, and that each piece of CCA treated timber carry a label warning:

"Not permitted for use as garden furniture, picnic tables, exterior seating, children's play equipment, patio and domestic decking, handrails, or school garden areas."

Should you have any further questions regarding the above don't hesitate to contact me.

Information about the BFA's Organic School Garden including safety considerations and advice for schools can be found at the website www.organicshools.com.au.

Sincerely,

Sent on behalf of the General Manager, BFA Group by Madeline Cooper

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Further research which highlights the safety risks associated with CCA treated timber:

The continued use of CCA timber could be especially detrimental to gardens where organic cultivation applies. Research cited by Enviro Consulting et al (2004) found that "metal concentrations in humic matter can be up to one thousand times greater than those not containing humic matter, and that copper is most affected".

Australia's climate may also compound the amount of leaching according to research: "Ultraviolet exposure increases the amount of arsenic removed through rainfall by five times" (Lebow et al, 2003)'.

Information published online by Professor Sharon Beder illustrates the significant impacts of treated timber on health and the environment: see <http://www.herinst.org/CCAtimber/environmental/soil.html>