



The Nursery Papers

ESSENTIAL INFORMATION FOR AUSTRALIAN PROFESSIONAL NURSERY OPERATORS

EDITED BY IAN ATKINSON, NATIONAL IDM. ISSN:1326-1495 ISSUE NO:1998#014

Handle potting mix safely

Pot media, composts and like organic products are potentially hazardous. It is important that both production and retail nurseries realise this and meet their obligations under workplace health and safety.

Research funded by NIAA/HRDC has shown that a bacteria called *Legionella* can survive and grow in pot media, composts and other organic substances. Previously it was thought that this group of normally water borne bacteria could not live in such an environment. It also showed that even after pasteurisation the bacteria could easily reinfect the mix and live for more than twelve months in bagged product. It seems that the bacteria are able to live within a micro organism called amoeba and could be found in the vast majority of pot media and composts produced.

Good engineering can reduce the hazard -
The latest Comet potting machine* with air cleaner fitted to reduce dust



HEALTH WARNING

THIS PRODUCT CONTAINS
MICRO-ORGANISMS THAT MAY BE HARMFUL
TO YOUR HEALTH
AVOID BREATHING DUST OR MISTS FROM
THIS PRODUCT
WEAR GLOVES AND KEEP PRODUCT MOIST
WHEN HANDLING
WASH HANDS IMMEDIATELY AFTER USE

Legionella bacteria may cause pneumonia symptoms in those that it infects. Recent advances in medicine have allowed pathologists to more accurately identify the exact cause of some pneumonia, even being able to pinpoint the exact strain (or species) that is involved. Two are of most concern to doctors, *Legionella pneumophilla* and *Legionella longbeachae*. Both can be isolated in the natural environment and in certain conditions (like composting) are able to breed up quickly. Both have the capacity to cause illness and death. In 1997 approximately 200 people contracted Legionellosis in Australia, with *Legionella longbeachae* identified in approximately one third of cases. *Legionella longbeachae* has been associated with Legionellosis contracted by handling pot media.

Legislation

This information when added to other known risks, like tetanus, dermatitis and dust diseases has lead pot media manufacturers to review the





Safe Handling Course, August 1998

health status of their products. The result of the review and legal advice obtained is that most have recognised that their product meets the criteria set out by Worksafe Australia for being a 'Hazardous Substance' and have labeled them as such.

In Western Australia labeling is a legal requirement, and it also needed for pot media identified as meeting Australian Standards. Nursery Industry Association of Australia (NIAA) recommends that all nurseries only purchase and sell labeled product.

Occupation Health and Safety (OHS) legislation in each state details steps that need to be followed when dealing with hazardous substances. An inventory needs to be held, a risk analysis needs to be conducted and if necessary certain controls need to be put in place. All workplaces that use hazardous substances need to have current Material Safety Data Sheets (MSDS) available and ensure that the workers are not put at risk. There are also other steps that have to be followed.

Workplace practices

Most nurseries will need to change some practices to meet the legislative OHS requirements for ensuring a safe workplace when using and selling pot media. For some the changes will be minimal and may be no more than simple changes to their operating procedures. Others may need to modify their pot media handling equipment, relocate their potting area or ensure workers use the appropriate safety equipment. Lack of action may leave them liable for a fine, face being sued or worse still being responsible for the injury or death of a worker.

A workshop called '*Safe handling of pot media, composts and other organic material*' has been developed to assist people to ensure that they are able to cover these new requirements. It covers the legal issues, health aspects and other steps necessary when handling Hazardous Substances. All businesses that sell or use pot media are encouraged to do the course. To find out when it will run in your area please contact the Nursery Industry Development Officers and your State Nursery Industry Association.

The Bottom Line

Research has identified health risks in the use of pot media, composts and other organic material.

Pot media manufacturers are now identifying their products as meeting Worksafe Australia's criteria for a hazardous substance.

All workplaces are obligated to have systems in place for handling hazardous substances.

Acknowledgements and further reading
The original work by Dr Trevor Steele "*Final report NY234 - Control of Legionella spp particularly Legionella longbeachae in potting mixes 1997*" is available for \$20 from HRDC.

Also available is "*Guidance for the control of Legionella*" by Clive Broadbent published by National Environmental Health Forum, telephone 08 8266 7100.

This paper was written by Greg McPhee, National Training Officer, and the workshop is an outcome of the NIAA instigated HRDC Project NY96029 "Transferring Research into Training".

* For more information about the Comet potting machine contact Anderson's Engineering and Sales Parts, phone 1800 677 802.

