

UNDER THE CARPET

Many gardeners think they're doing a good thing by using old carpets to suppress weeds. What they don't realise is that carpets and underlay may be loaded with toxic chemicals, writes JO IMMIG.

GARDENERS ARE A RESOURCEFUL lot, always looking for ways to recycle things in the garden. Old carpets and underlay are favourites and are often used as ready-made weed mats or covers for compost heaps and worm farms. But many gardeners are unaware of the dangers involved – most recently highlighted by the discovery of asbestos in carpets – and it's certainly not an acceptable practice under Australian organic certification standards.

Organic gardening author and expert, Lyn Bagnall, says she regularly sees carpets and underlay in gardens, and wants to warn people about the significant risks associated with them.

"Carpets and underlay are like toxic waste dumps for dangerous industrial chemicals and pesticides, including some like DDT that have long been banned because of health and environmental impacts", she says.

"Some gardening experts unwittingly encourage the practice," she points out, "but these pollutants can leach into the soil or compost and be taken up by plants, which is the last thing any organic gardener would do if they knew the dangers involved".

While Australian organic standards don't specifically exclude the use of carpets or underlay, they do state that items contaminated with pesticide or chemical residues cannot be introduced into the production system – which would seem to exclude both carpets and underlay.

To avoid these dangers, Bagnall suggests using thick corrugated cardboard or untreated sawdust to suppress weed in pathways, and to

maintain moisture in an open compost or worm farm, use a thick layer of wet newspaper or wet hessian sheets. For blanket mulching to eradicate perennial weeds, use black plastic sheeting that doesn't contain polyvinyl chloride (PVC).

Toxic chemicals in carpets

Every aspect of carpet manufacture, installation, use and maintenance involves chemicals, so whether your carpet is old or new, made of natural or synthetic fibres, it will probably be contaminated with any number of toxic and persistent chemicals (although there are now some carpets sold containing latex glues and no chemical additives).

Typically, new carpets and underlays contain higher levels of volatile chemicals from glues and synthetic

rubber, such as formaldehyde, styrene, ethylbenzene and 4-phenylcyclohexene. Natural fibre carpets, such as wool, may be treated with residual pesticides for insect-proofing. Carpets may also be treated with perfluorooctane sulfonate (PFOS), a chemical used to prevent stains, while flame-retardants such as pentabromodiphenyl ether (PentaBDE) may be added to foam underlay.

Both of these pose health dangers to humans and were recently assessed by an international scientific committee as persistent organic pollutants. They are slated for global phase-out due to their toxicity, persistence and ability to bio-accumulate in the environment¹.

Over time, carpets become even more toxic as they act like 'sponges', gathering contaminated dust and chemical residues such as heavy metals (for example, lead and mercury), industrial pollutants and pesticides. These residues are tracked inside on shoes and by pets, as well as through cleaning products, pest treatments and renovations.

Asbestos in carpets

A shocking discovery was recently aired on the ABC 7.30 Report², which further compounds the toxic impacts from carpets and underlay.

Millions of hessian bags, used to transport asbestos fibres from the 1940s to the mid-1970s, were 'recycled' into felt underlay and used to carpet tens

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of thousands of homes in Australia. Carpet underfelt made from these hessian bags is potentially extremely dangerous, and home renovators must take great care to consult professionals about its removal and proper disposal.

Because of their levels of chemical pollutants and potential toxicity, when not in use, carpets and underlay clearly belong in a hazardous waste disposal facility – and most certainly not on our gardens.

1 IPEN Guide to New POPs (2009) www.ipen.org

2 <http://www.abc.net.au/am/content/2009/s2665719.htm> **OG**