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Should You Use Treated Wood?



By [Gemma Alexander](#)

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Wood is one of the more sustainable building materials because it is renewable and biodegradable. But we don't want our buildings or other outdoor structures to biodegrade while we're still using them. Enter wood treatments. For most of the 20th century, creosote-soaked railroad ties and pressure-treated lumber were the go-to materials for garden projects and decking. But those chemicals were worse than unsustainable, they were toxic. With the right choice of wood and safer wood treatments, you can grow a greener garden and build a better deck.

What Do You Think?



Would you give or accept a lab-grown diamond as an engagement ring?

- Yes
- Maybe
- No
- No opinion

NEXT

Wood Treatments on the Red List

Creosote and pentachlorophenol wood treatments make the [Red List](#) of worst-in-class chemicals that [everyone should avoid](#). Although [creosote](#) can come from natural sources – resin from creosote bushes or beechwood – the wood treatment is usually made from coal tar. Creosote from treated wood can leach into soils and enter the body through the skin. Creosote exposure is associated with skin and scrotum cancer in humans, and may also be associated with kidney and liver problems.

[Pentachlorophenol](#) is linked to liver and immune system damage in humans, and reproductive and thyroid damage in laboratory animals. Pentachlorophenol is highly toxic to aquatic organisms and [honeybees](#), and slightly toxic to avian species. Mainly used to treat utility poles, pentachlorophenol is not approved for residential uses and should be easy to avoid.

In the 1980s and 1990s, most treated wood contained arsenic. Inorganic arsenic is not only an acute toxin; it is a known human carcinogen. In 2003, lumber treated with [chromated copper arsenate](#) (CCA) was eliminated from most residential uses. However, CCA-treated wood is still available; confirm the type of treatment before you buy.

What Wood Would You Use?

Today alkaline copper quaternary (ACQ) and copper azole are used to pressure treat wood. They are arsenic-free and water-based. ACQ uses recycled copper, and while [copper can leach](#) into soil, it does so in harmless quantities. While this makes it safe for use in vegetable gardens and for decking, the leached copper might be [harmful to aquatic life](#), so lumber treated with copper-based formulas is not the best choice near bodies of water.

A “Use Category” [system of labels](#) makes it easy for consumers to choose the right treated lumber for their project without digging into the chemical specifics, although eco-minded DIYers will probably still want to learn what chemicals they bring home.

Bedding



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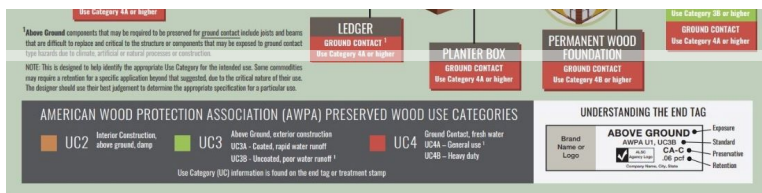


Image courtesy of [AWPA](#)

Consider the Species

One of the most common uses for pressure-treated wood, [raised garden beds](#), doesn't actually require it. The Seattle Urban Farm Company has built hundreds of wood-framed raised garden beds. They report that [naturally rot-resistant species](#) outperform treated wood over time. Nearly every region has its own native rot-resistant species, for example, red cedar in the Pacific Northwest, [redwood](#) along the West coast, cypress in the Southeast.

They also recommend treating lumber with a food-safe internal wood stabilizer. In contrast to pressure treatment, these surface applications may be safer and just as effective for most projects. There are many [nontoxic wood treatments](#) from natural oils like linseed and tung oil to commercial products like TimberPro UV. That product reacts with chemicals in wood to form hard crystals in the pores of the wood. These options are especially useful if you choose to use previously untreated [salvaged wood](#), which reduces the use of virgin lumber but may not be the best species for use outdoors.

Look for sustainably sourced lumber. Although [FSC-certified](#) lumber is usually more expensive, it is the easiest way to confirm the origin of your lumber.

How Do You Treat Treated Wood?

Environmentalists love to salvage and reuse resources, but in the case of lumber, it might not be the best idea. Old paint is likely to contain [lead](#), and pressure-treated wood that is older than 20 years will contain arsenic or pentachlorophenol. Chromium, copper, and arsenic [can leach](#) from treated wood into the soil, so none of these materials should be used for gardens or in places where children play. However, you might choose to recycle old treated lumber in low-exposure applications like boards that contact soil in unoccupied outbuildings. Hopefully, it is already obvious that burning treated wood in your [fireplace](#) will release toxins and harm [air quality indoors](#) and out.

Depending on where you live, old treated lumber may be

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classified as hazardous waste or as [construction and demolition waste](#). Ask your local waste utility about wood waste regulations. Some recycling centers accept pressure-treated dimensional lumber that is free of varnish, lead or enamel paint, and packaging and hardware. [Look for a recycler](#) near you. However, in most locations, your best option may be simply disposing of treated wood in the garbage.

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By [Gemma Alexander](#)

Gemma Alexander has an M.S. in urban horticulture and a backyard filled with native plants. After working in a genetics laboratory and at a landfill, she now writes about the environment, the arts and family. See more of her writing [here](#).

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