

Is Treated Lumber Safe For Food Gardens? Maybe...

Pressure-treated wood is rot and insect resistant. It's typically used for decks, mailbox posts, light posts, playgrounds, utility polls, picnic tables, home building foundations, and much more. Pressure-treating wood saturates wood under pressure with a chemical preservative. Wood that is pressure-treated can last many years when in contact with concrete and dirt where other wood would begin to rot. (image credit)

If you're like me, you've wished you could use reclaimed pressure treated lumber for a garden bed to grow food in. I had heard that pressure-treated lumber was too toxic to be near food but there were two discarded utility poles in my neighborhood that I wanted to use in my urban farm. So I did some research, and I found out that I definitely do not want to use those utility poles! But I also found out that pressure-treated wood produced more recently is probably perfectly safe to use.

Until the early 2000s, pressure-treated wood was typically treated with chromated copper arsenate (CCA), which is an extremely toxic chemical. Arsenic is easily absorbed into the body but it does not exit the body nearly as easily. Those utility poles I wanted were made this way. You shouldn't even touch utility poles.

If pressure-treated wood has a greenish tint to it, as utility poles often do, then it has been pressure-treated with CCA. Utility poles are still usually treated with CCA.

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In 2002, after growing concern due to studies and questions raised about CCA toxicity, the EPA pushed lumber manufacturers

to find a non-arsenic based formula to treat lumber. In late 2003, CCA manufacturers voluntarily ended the use of CCA in residential wood products. Manufacturers switched to using copper and chromium-based chemical preservatives. The two main types of treatment for residential construction today are copper quat (ACQ) and copper azole (CA).

ACQ is said to have very little relative risk. Research was done to determine how much of the chemical a person could conceivably touch and then put in their mouth. Results showed that ACQ-treated wood is non-toxic to skin as well as any normal oral exposure. Other studies have shown that copper can leach from the wood but we need more research on this to know if it has a toxic effect on the environment. ACQ wood has problems with corrosion so be careful to choose screws and other metal fasteners, wisely.

Copper azole treatments contain copper, boric acid, and tebuconazole (type B does not contain boric acid). CA is a water-based preservative that can be cleaned and painted.

Copper Azole and Alkaline copper quaternary treatments both contain a fungicide. The copper deters insects and the fungicide prevents soil rotting the lumber.

Is ACQ and CA Pressure Treated Lumber Safe?

Safer, for sure. Manufacturers are confident, of course, that these treatments pose no health or environmental problems. I think that the risks with CA and ACQ pressure-treated wood are minimal. Research is ongoing. What I can say is that I would much rather eat food from my own garden grown with ACQ or CA pressure-treated wood over anything I'd get in the grocery store. But I really like to use reclaimed wood. In fact, most of the wood I use is reclaimed, and I'm guessing at least half of the treated lumber I get is more than 20 years old.

If you want to grow the healthiest, best organic food possible it's probably not a good idea to use any kind of pressure-treated lumber.

If you just found out that your raised garden bed was made with arsenic-treated wood, if rebuilding is not an option, know that plants will not absorb arsenic when they have enough phosphorous.

Sources:

- *Pressure Treated Lumber WHAT SAFETY SHOULD BE TELLING YOU before use!* – Terry Penney
- *Pressure Treated Wood Safety Tips* – The Spruce Crafts
- *Toxicity Concerns about Raised Bed Construction Materials* – Iowa State University
- *Using Pressure Treated Wood For Raised Gardens... Is It Safe For Growing Food?* – The Natural Handyman