



**CORNELL  
COOPERATIVE  
EXTENSION OF  
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# HOME GROWN FACTS

121 Second Street Oriskany, NY 13424-9799  
(315) 736-3394 or (315) 337-2531 FAX: (315) 736-2580

## Update on Pressure Treated Lumber

FYI

Gro News Article for March 2007, prepared by Bob Beyfuss, Cornell Cooperative Extension of Greene County

### Update on Pressure Treated Lumber

Most Gro News readers are aware that the EPA has phased out the use of CCA (Chromate Copper Arsenic) pressure treated lumber since 2004 because it contains arsenic. Since that time the lumber industry has been looking for alternatives to CCA. The latest product called ACC (Acid Copper Chromate) has just been rejected for use in lumber for decks or playground equipment because the preservative poses a cancer risk to workers who apply or process the material. ACC is considered a health risk because it contains high concentrations of hexavalent chromium, a known human carcinogen. The preservative can be used for industrial purposes such as telephone poles and railroad ties.

So, what are gardeners supposed to use for decks, framing raised beds or other uses where wood is in contact with soil? I think the answer may require a shift in thinking about the whole issue. Instead of trying to find some chemical that makes wood decay resistant maybe we could consider using renewable wood products. There are some naturally occurring woods that are quite resistant to decay but some types of wood such as redwood or some tropical woods are not necessarily renewable resources.

There are at least a couple of abundant, local wood species that are quite decay resistant naturally. Black locust (*Robinia pseudoacacia*) has long been used for fence posts because the heartwood is rot resistant in contact with the soil for 25 years or often far longer. Likewise the heartwood of red cedar (*Juniperus virginiana*) is also quite resistant to decay. Even the common local hemlock (*Tsuga canadensis*) is somewhat rot resistant as is white oak (*Quercus alba*) and hop hornbeam (*Ostrya virginiana*). Unfortunately, with the possible exception of hemlock and oak (\$\$) these species of wood are generally not available commercially at your local lumber yard. It may be possible to contract with a local sawmill operator to custom saw some of these other species. Even relatively large sawmills will respond to demand if enough people inquire or if groups of people get together to purchase in bulk quantity. Many forest landowners have purchased portable sawmills and can do this type of work quite reasonably and on a very small scale right on site.

Personally, I use rough cut hemlock (one inch thick by 10 inches wide) that I purchase at a local sawmill. Rough cut lumber is actually the dimension you purchase or even larger compared to finished lumber which is significantly smaller. I have used the hemlock to frame raised beds for 5 years with no sign of rot yet. For additional preservation, over the counter wood preservatives may also be applied to the hemlock or whatever species you use.

### Additional Info:

Alkaline Copper Quat (ACQ) is the primary wood treatment chemical that has taken over much of the chromated copper arsenic (CCA) market since EPA announced a phase out of CCA in wood treating applications.

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The ACQ preservative is a copper plus quat system that manufacturers claim provides the same level of protection to wood as CCA preservatives against decay, rot and termite attack. The main active ingredient in ACQ is Copper, which has long been established as the most cost-effective preservative component used in timber preservation. Quat, provides additional protection from fungi and insect attack that copper alone would not control. Quats are commonly used in household and industrial disinfectants and cleaners and are biodegradable in soil. Copper and quat solutions similar to ACQ are used for the control of fungi and bacteria in swimming pools and spas.

Since ACQ does not contain arsenic and chromium, two primary ingredients in CCA treated lumber, it is considered to be much safer than CCA treated wood. In fact none of the ingredients in ACQ are listed by EPA as carcinogens. That was not the case for CCA treated lumber. ACQ treated lumber is licensed for use in lumber for raised bed gardens. But so is CCA treated lumber. So I am not certain that EPA's approval will calm the fears of skeptics. I suggest that gardeners who are concerned about the use of chemical containing materials near food growing operations look into alternatives to treated wood. The National Sustainable Agriculture information Service has a website (<http://attra.ncat.org/attra-pub/lumber.html>) where they list several organic alternatives to the use of treated lumber in gardening/farming operations.

This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly, some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold, and/or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension Specialist or your regional DEC office. **READ THE LABEL BEFORE APPLYING ANY PESTICIDE.**

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