

Fact Sheet: Dioxins and Treated Wood

Treated wood is used to ensure that structures last; however, some treated wood products should not come in contact with animals or their feed because it contains dioxins.

What is treated wood?

Treated wood is wood that has had a chemical applied to it to inhibit deterioration by fungi, insects, and other organisms. Pressure treated wood has chemicals applied under pressure so that the chemicals penetrate deeply into the wood. Some types of wood treatments are:

- Creosote: now banned but was used for railroad ties
- Pentachlorophenol (PCP): commonly used for telephone poles
- Chromated copper arsenate (CCA), commonly called green-treated wood
- Other copper containing treatments: e.g. ammoniacal copper quaternary (ACQ), copper azole.

What are dioxins?

Dioxins are toxic chlorinated compounds known chemically as dibenzo-p-dioxins. They are by-products of chemical reactions, which can occur when plastics are burned. Dioxins can be found in treated wood products, such as PCP-treated wood.

Dioxins are present in the environment in small amounts and tend to accumulate in the fatty tissues of animals. As a result, they are commonly found in low levels throughout the food chain. The most significant source of dioxins is large-scale burning or municipal and medical waste. Other major sources are iron and steel manufacturers, burning of plastics and fuel, forest fires, and electrical power generation.

What are the concerns with dioxins?

Dioxins are known carcinogens and can cause other health problems such as birth defects and liver problems.

If animals are exposed to dioxins, either directly via treated wood or through their feed, they may consume higher levels of dioxins and may transfer potentially harmful levels of dioxin into their milk and meat. The Canadian Food Inspection Agency recommends that livestock feed should not be stored in direct contact with treated wood and animals should not be able to access treated wood.

What does the Canadian Quality Milk (CQM) program require regarding treated wood?

The Canadian Quality Milk (CQM) program has a recommended element on treated wood:

Workbook Question 10 (recommended): Do you prevent exposure of cattle and cattle feed to treated lumber and bedding made from treated materials?

What can a dairy producer do to reduce feed and animal exposure to treated wood?

In Chapter 1, the CQM Reference Manual states:

Treated wood can be toxic to animals if animals are allowed contact with it either through the skin or ingestion. While treated wood may be needed to construct some buildings and structures on a farm, some best management practices are:

- Avoid use of treated wood in areas where animals can access it or cover the treated wood with a safe covering.
- Avoid exposing cattle feed to treated lumber.
- Ensure bedding is not made from treated materials.

Dairy producers should try to minimize feed and animal exposure to treated wood. The products of greatest concern are creosote and pentachlorophenol (PCP). Producers should check barns for treated wood that cattle can access and feed bunkers for treated wood that feed can be in direct contact with, and evaluate those areas. Once producers have determined their levels and locations of risk, they should discuss options with a building engineer for the best and most cost-effective solutions. A building engineer will help to ensure that solutions are appropriate and do not compromise the integrity of the structure.

What is government's role with dioxins?

Due to their toxicity, governments monitor dioxin levels in the environment and, subsequently, in food. The Canadian Food Inspection Agency monitors dioxins as part of its National Chemical Residue Monitoring Plan.

Where can I find more information?

1. Health Canada's fact sheet: www.hc-sc.gc.ca/iyh-vsv/envIRON/dioxin_e.html
2. Canadian Food Inspection Agency's notice to industry: www.inspection.gc.ca/english/anima/feebet/ind/20070212e.shtml