

## Advantages of White Cedar

1. Its special oils make it resistant to rot and insects, even in harsh outdoor conditions of moisture and low temperatures. It is considered one of the most decay resistant trees in North America.
2. Its natural resistance to decay makes it highly desirable in environmentally sensitive areas such as waterfronts where the chemicals in pressure treated lumber would cause concern.
3. It dries relatively quickly, compared to many other woods. Generally air-drying is sufficient, whereas many woods such as maple, oak and cherry must be kiln dried. In addition, as cedar dries, it is very stable, and resists warping and shrinking better than most species.
4. It cuts easily, with minimal cracking and splitting.
5. It is very easy to work with, since it cuts so easily. You can use screws or nails directly in the wood, rather than drilling an initial hole as you need to with harder woods such as oak.
6. It is one of the lightest Canadian wood species, making it easy to carry and handle. Its lightness is due to many microscopic air pockets, which help give it an insulating value. Rooms lined with white cedar paneling will feel warmer than those which are not. The R value of white cedar exceeds that of red cedar or pine.
7. It is an attractive wood, with great variations in grain, patterns and knots.
8. Its neutral color takes stains or paint easily.
9. White cedar costs less than red cedar

## White Cedar Compared to Red Cedar

1. White cedar is known as eastern white cedar since it is found primarily in the eastern half of North America. Red Cedar is known as western red cedar since it is found in the western half of North America
2. In our area, white cedar is consistently less expensive than red cedar, since white cedar is obtained locally, whereas red cedar must be shipped across the continent. In an era where gasoline prices are very unstable, and seem to spike frequently, the cost of transportation is significant.
3. Both woods contain oils which protect them against rot and insects. Some studies have shown that posts made of eastern white cedar outlast posts made of western red cedar by as much as 11 years.
4. Both woods have a pleasant characteristic odor – brides used to store their precious fabrics in “hope chests” made of cedar – their possessions smelled good, and were totally safe from moths and other insects.
5. Both woods are very light:
- 6.
- 7.
8. white cedar has a density of 0.31 g/cm<sup>3</sup>, and red cedar has a density of 0.47 g/cm<sup>3</sup>. This is less than half the density of water.
9. Both have a fairly straight grain and are easy to work with
10. White cedar and red cedar are not noted as particularly strong woods. Beams in barns would not be made of cedar, but stronger woods such as ash, oak and maple. Red cedar is slightly stronger than white cedar.
11. White cedar trees tend to be smaller than red cedar trees (50 feet compared to 200 feet). This means that white cedar tends to have more knots than red cedar, since the knots form where side branches come out of the trunk. This gives white cedar more “character”, but also requires vigilance in making sure that the knots in the boards are solid and attractive, and do not diminish the appearance and functionality of the board. It also means that it is difficult to obtain very wide

### **What causes Cedar to develop black stains at the nails?**

The stain is caused by natural wood extracts interacting with metal in the fastener. Moist wood increases the likelihood of this interaction. For Cedar, Redwood and Cypress, you should use double-dipped galvanized, stainless steel or aluminum fasteners.

### **Can the stained Cedar be cleaned off?**

Yes. If the stain is brownish, use a solution with Trisodium Phosphate (TSP), available at retail hardware stores. If the stain is black, use a solution with Oxalic Acid to clean the boards. This material is also available at retail hardware stores.

Commercial cleaners are available as well. Identify the cause of the stain to ensure you choose the correct product. Certain concrete cleaners are specifically formulated to clean wood extracts from patios, sidewalks, or other concrete structures.

### **What about using bleach and water?**

Chlorine-based or Oxygen-type bleach is effective against mildew and fungi. Oxygen-type bleach contains sodium percarbonate which when added to water forms hydrogen peroxide, an effective agent in removing mildew stains, dirt and weathered gray residue from wood that has ultraviolet (sunlight) degradation. Unlike chlorine-based bleach, once the wood is treated with the oxygen-type bleach it will return to its original natural appearance.

Some species of wood contain tannins, a natural resin. Water can extract these resins from wood leaving brown or black discolorations on the surface. Blue-black stains can result from a reaction of tannins to the iron in nails or fasteners. Neither chlorine nor oxygen bleaches are effective against tannin or iron stains but use of an oxalic acid-based product mentioned previously, will render the stains colorless.

### **Why does cedar split when fastened with nails?**

Correct nails and nailing practices are essential to successful installation. Choosing a needle point nail is a common mistake. While the most commonly used nail is a diamond point, a blunt point will reduce splitting. Overdriving nails is another problem that distorts wood and causes excessive splitting. Predrilling will help reduce any splitting that can occur.

### **The boards at the top of my fence are warping. Why?**

The backrails should be no more than 8" from the fence board tops and bottoms. Fence boards 6' long should have three back rails. Spacing your rails this way will help control the wood's natural tendency to warp due to expansion and contraction.

### **What can be done to eliminate the effects of weathering and keep that "new fence" look?**

While there's no way to eliminate the weathering of wood, it's relatively easy to minimize the effects:

- Use only hot-dipped galvanized, or stainless steel fasteners with a ring or spiral shank to minimize warp and rust stains.
- Treat the surfaces of fence boards with a water-repellant solution to reduce the rate that moisture is absorbed and released. This solution should also have a good UV inhibitor if you don't want the fence to gray.
- Follow a regular maintenance program of cleaning and refinishing every few years with a "clear" or "toner" water repellent containing UV inhibitors. This will revitalize a dingy appearance caused by dirt, mildew or graying. It's like washing and waxing your car. Opinions differ on how necessary it is to perform regular maintenance, but most agree your fence will look much better for the effort.

