Field-cut Treated Lumber

Field-cut treatments are necessary to re-seal the envelope when preservative-treated wood is cross-cut, exposing a core of untreated wood. Forintek cut short lengths of permanent wood foundation (PWF)-grade CCA-treated lumber and coated the cut ends with a variety of field-cut preservatives. The wood was half-buried in soil and rated annually for decay of the ends. Copper naphthenate, a commonly available retail preservative and currently the only one listed in CSA standards for field-cut application, performed very well. Zinc naphthenate did not perform as well and should only be used out of ground contact. Untreated cut ends were severely decayed within six years.

**Commodity:** Field-Cut Preservative  
**Test method:** Ground contact  
**Test Site:** Westham Island, BC  
**Date of installation:** 1987  
**Preservative:** Various  
**Treatment:** Brush-coated with two applications of preservative  
**Wood Species:** PWF-grade Hem-fir 2 x 6, incised and CCA-treated  
**Condition of Untreated Samples:** 86% decayed after 6 yrs, 100% severely decayed or failed after 10 yrs

**Condition of Treated Samples:**

- Zinc naphthenate (2% zinc): 60% decayed at 6 yrs, 92% decayed after 10 yrs  
- Creosote at 70°C: 9% decayed at 6 yrs, 26% decayed after 10 yrs  
- Copper naphthenate (2% copper): 100% serviceable at 6 yrs, 2% decayed after 10 yrs

**Note:** After 10 years exposure, there was no difference in performance between a three-minute dip and a double brush coat of copper naphthenate.