



PRESERVE TECH

Guidance for properly specifying and using preserved wood products

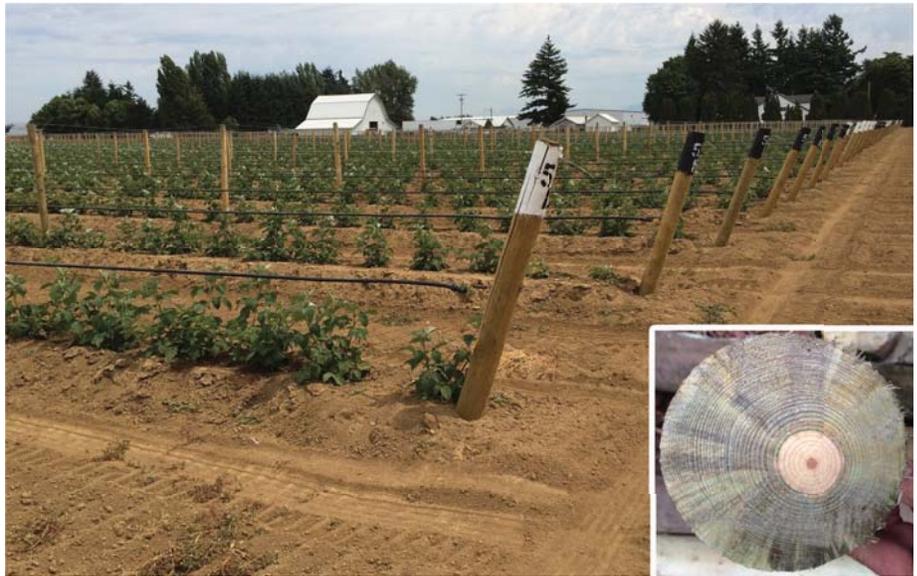
Specifying Preserved Wood Posts for Agricultural Uses

Preserved wood posts are used daily in the agricultural industry, supporting vines and other crops as well as field fences. These products provide an economical choice and are safe and easy to use in agricultural settings.

Round posts treated with preservatives are available in a wide variety of lengths and diameters to meet structural as well as aesthetic needs in agriculture. Sizes range from 3½ inches to more than 8 inches in diameter and lengths up to 30 feet.

Since round wood posts are used in a ground contact exposure, they are treated to meet the penetration and retention standards for AWPAs Use Category (UC) 4A or 4B. Waterborne preservatives most commonly used for wood posts in agricultural uses include CCA, CA-C, ACQ and ACZA.

The minimum retentions, or amount of preservative required in the wood for CCA, ACQ and ACZA are set at 0.40 pcf for posts produced to UC 4A and 0.60 pcf for those treated to UC 4B. The retentions for CA-C are 0.15 pcf for UC 4A and 0.31 pcf for UC 4B.



Round preserved wood posts offer versatility and durability in a variety of agricultural uses. The sapwood in posts (inset) readily accept preservatives in pressure treating. Heartwood -- which is more prevalent in smaller diameter posts -- does not accept treating easily. Smaller diameter posts may contain higher amounts of heartwood, which does not readily accept preservative treatment.

Heartwood and treating

With changes in forestry and sawmill cutting practices, the raw materials used today to make agricultural posts and poles may contain higher amounts of heartwood from the center of the tree. This is particularly true in smaller diameter posts and poles.

The heartwood of Western softwood species is considered very difficult to treat with all preservative systems used for ground contact. The AWPAs treating standards recognize this characteristic and note that the preservative retention and penetration requirements apply to the sapwood only.

In some instances, posts that have little sapwood may be described as “treated to refusal”. These posts undergo pressure treating, but because of they contain mostly heartwood, the posts may not meet the penetration and retention standards set by the AWPAs.

Benefits of preserved wood posts

As a natural material, wood posts offer more environmental benefits than competitive materials. To make agricultural products, manufacturers often utilize raw wood too small for the sawmill, which in the past may have been chipped or left in the forest.

Wood offers many aesthetic benefits for agricultural uses. The natural look of preserved wood posts blends well with the landscape and fields where they are used.

Strong and good looking, round wood posts are easy to install. They provide a higher strength-to-weight ratio compared to iron or steel posts. With more surface area in contact with the surrounding soil, properly installed treated wood posts provide a strong anchor for fencing and crop supports.

Preserved wood posts offer a long life in service. In 1927, Oregon State University established a post farm to determine the natural durability of native woods and the effectiveness of various preservative treatments for species used as fence posts. OSU researchers noted: “Pressure treatments have been most consistently effective in greatly increasing the service life of posts of nondurable wood. Such treatments yield the longest service under severe conditions.”

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