

Treat Fence Posts for Longer Life

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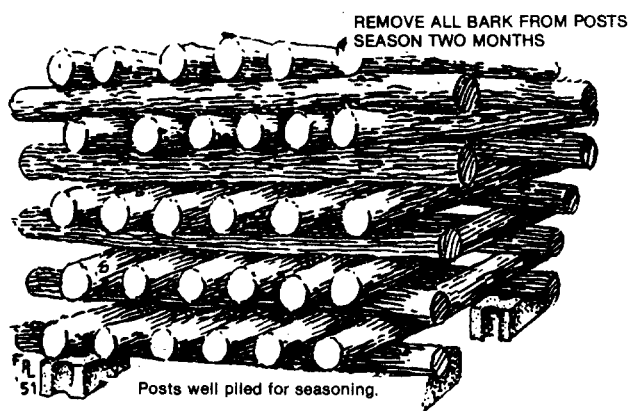
North Dakota State University Fargo, North Dakota 58105

SEASONED POSTS

Untreated, such commonly used posts as ash, aspen, elm and willow will last only three to six years. But oak and Northern white cedar may last 10 years. Treat them, and they're likely to last 30 years and even more.

The two wood preservatives on the market commonly used for home treating peeled and seasoned posts are penta (pentachlorophenol) and coal tar creosote.*

These wood preservatives can be applied either by cold soaking or by the hot and cold bath method.



HOT AND COLD BATH METHOD

Equipment needed

A steel drum or tank at least 4 feet deep, set it so a fire can be burned underneath.

Another steel or wood drum of the same size. Since this contains the cool chemical, it can sit on the ground or even be partially buried in the ground.

A thermometer. The candy or deep fat type is satisfactory.

*A Certified Pesticide Private Applicators Certificate is required for the purchase and use of treating with restricted use wood preservatives.

Wood preservative. Use either coal tar creosote or penta concentrate.

Used crankcase oil or fuel oil. Make sure no water is in the used crankcase oil. Water will cause it to foam and boil over.

Peeled and seasoned posts.

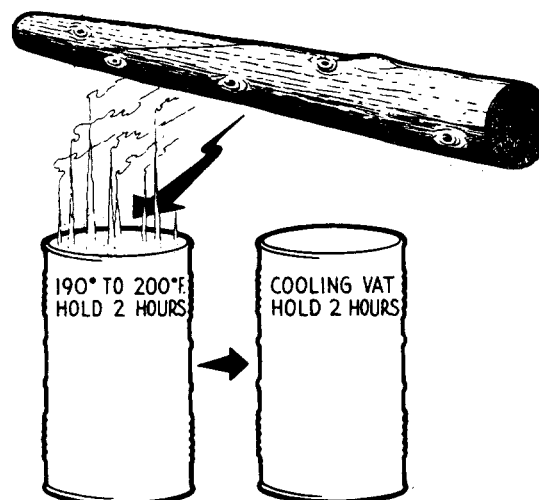
Fuel wood (or other fuel).

Treating procedure

If coal tar creosote is used, mix it with equal parts of used crankcase oil or fuel oil.

If penta concentrate is used, mix it according to manufacturer's directions. For 40 percent penta concentrate, mix at rate of 1 gallon penta to 10 gallons of used crankcase or fuel oil.

Add preservative mixture to both drums to a depth of 24 inches.



HOT AND COLD PROCESS

CAUTION: Keep temperature at 190 to 200 degrees. Do not allow to boil over. The preservative is flammable.

Heat the metal tank until the preservative mixture reaches a temperature of 190 to 200 degrees Fahrenheit.

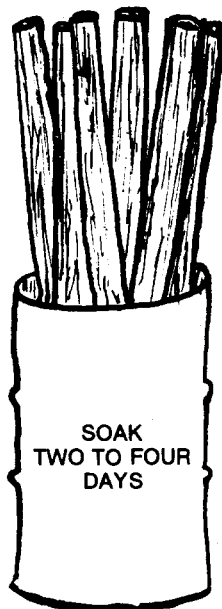
Place posts, butt down, in the hot solution, and keep there for two hours.

Take posts out of hot solution and immediately place in cool solution. Allow to soak for at least two hours.

Remove and store the posts temporarily in such a manner that you can salvage the drainings.

Posts can be used immediately or can be stored until needed. In the case of penta, a week or two of curing before use is beneficial.

If only a few posts are needed at a time, the second or cool drum can be eliminated. After the posts have heated for two hours, draw the fire and let the posts soak until the solution has cooled.



COLD SOAKING PROCESS

Posts correctly piled for seasoning.

COLD SOAK METHOD

Equipment needed

A metal or wood drum or barrel, not less than 30 inches deep.

Coal tar creosote or penta mixed as described under "Hot and Cold Bath Method".

Peeled and seasoned posts.

Water gas tar or lignite coal tar creosote without dilution with crankcase or fuel oil can be used instead of the coal tar creosote or penta.

Treating procedure

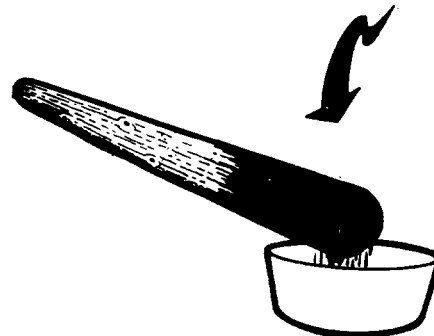
Fill the drum or barrel with posts, butt end down.

Add the mixed preservative mixture until the drum or barrel is full.

Let posts soak for two days. Check absorption of preservative by making a small cut into the side of the post. If 1/8 inch penetration is obtained, then take posts out. If less, soak for another day and check again. If necessary, soak for still another day, making four days in all.

Remove posts. Temporarily store them in such a way that you can salvage the drainings.

Posts can be used immediately or they can be stored till needed. Penta treated posts may give better results if they are cured for a week or two before using.



SALVAGE DRAININGS

UNSEASONED POSTS

It's easy to treat green, freshly cut fence posts on the farm so they will last 15 years and probably longer. You can do it with water soluble wood preservatives which work best on posts from March through May.

This circular explains the two most common methods of treatment - the end diffusion or sap stream method, and the osmoplastic method.

END DIFFUSION

Place freshly cut, unpeeled posts in a barrel or trough that contains a water solution of a wood preservative such as zinc chloride, chromated zinc chloride, or copper sulfate. The wood preservative is absorbed into the sapwood of the post and, under favorable conditions will rise the full length.

Equipment Needed

A barrel or trough, preferably wood or concrete.

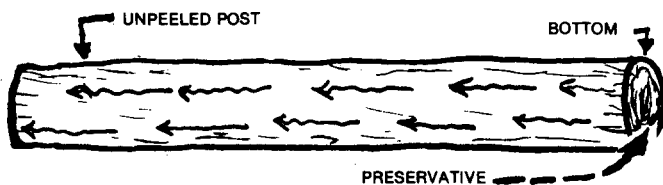
Wood preservative. It's best to buy a preservative in powdered or crystal form and of the "technical" grade. The pure form is too expensive and not necessary. You can use any of the following:

Zinc Chloride - It is colorless and comparatively low in price. Any of the food colorings or dyes can be used to color it so that you can see its progress in treating the post.

Chromated Zinc Chloride - The chemical is colorless but can be colored with a food dye.

Copper Sulfate (blue vitrol) - The crystals and solution are bluish green and transmit the same color to the treated wood.

Freshly cut, green posts with the bark on. This treatment works best on posts cut less than one week.



Treating Procedure

Half-fill the barrel or trough with water. Count the number of gallons.

Add the dry (wood) preservative to the water.

For chromated zinc chloride, or zinc chloride, use one pound-size coffee can level full per gallon of water.

For copper sulfate, use one heaping pound-size coffee can per gallon of water.

Put the posts in, butt end down. If the posts have been cut more than a week, cut 1 inch off the butt end of post before it is placed in the treating solution.

Allow the posts to soak for three days.

Remove posts from treating container and store, butt end up (small end down) for at least one week. Posts are then ready for use.

Leave the bark on for best results in treating green posts. Bark keeps the preservative from leaching out. If copper sulfate is used as the preservative, bark will keep this very corrosive chemical from eating away the staples and wire.

DOUBLE DIFFUSION

In this method, treat the posts in the same way as in end diffusion. The only difference is that you soak the posts in two different chemicals.

First soak the posts in copper sulfate for two or three days. Mix a heaping pound-size coffee can of the sulfate crystals with each gallon of water.

Transfer the posts to a second barrel containing a solution of sodium chromate and soak for two or three days. Mix one level full pound-size coffee can of the sodium chromate powder to each gallon of water.

If you need the posts immediately, then soak them for two days in each of the barrels. If you are not in a hurry, allow posts to soak for three days in each chemical.

OSMOPLASTIC

The osmoplastic treatment fits in well where you don't have the time it takes to treat posts with other preservatives. With osmoplastic, you can set the posts immediately after treating.

Equipment Needed

Osmoplastic preservative salts.

A fiber bristled brush (window brush) to apply the preservative.

A waterproof wrap or bandage. (This usually comes with the preservative.)

Peeled, green and freshly cut posts.

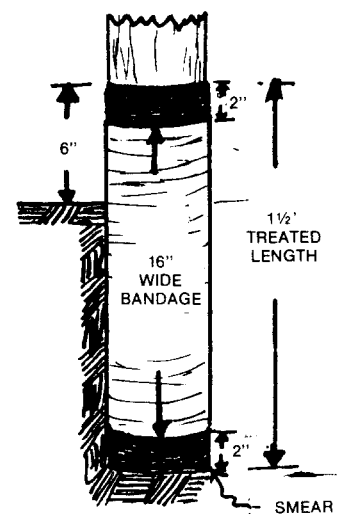
Treating Procedure

Brush the osmoplastic on the butt end of the post to a distance of at least 6 inches above the ground line.

Apply the wrap or bandage over the treated area, and the post is ready to be placed in the fence line.

One gallon of osmoplastic paste will treat approximately 50 posts having a 5-inch diameter.

Use freshly cut and peeled posts for best results. The greener and wetter the posts, the better the treatment.



6 1/2" POST

Formulations of good preservatives on the market permit you to treat fence posts, poles and other wood products in place. Depending on the preservative used, wood can be treated that is either green or seasoned, or wet or dry.

TREATING POSTS, POLES, OR LUMBER THAT HAVE BEEN IN USE

It often happens that a post or pole is in a critical position and can't be removed for replacement, except at considerable work or expense. For example, this could happen to the supports of a pole barn.

There are times when buildings show signs of decay at their sills and joints or other supports. These wood members can be given longer life by the application of a 5 percent penta solution. Several heavy brush applications can increase the life span of this wood for five years or more. Penta containing used crankcase oil is not suitable where you will paint. The oils bleed through, discoloring the paint.

Wet Posts or Poles, Ground Line Treatment

In wet areas or where posts or poles are wet at the time of treatment, additional life can be given to them by an application of osmoplastic.

Shovel the dirt away from around the post to a depth of 8 to 12 inches. For a pole, shovel away 12 to 18 inches. Trim away the rotted wood and cover the post with a 1/8 to 1/4 inch layer of osmoplastic. (See diagram for area of application.) Then cover this paste with an oilproof cover, such as saran wrap, polyethylene film or aluminum foil, to prevent the chemical from being absorbed by the soil. Shovel the dirt back around the post or pole after treatment.

Moderately Dry Posts or Poles

Where the posts or poles are dry, or almost so, use a paste containing penta, or a combination of penta and coal tar creosote. The application is the same as for the osmoplastic. Here too, cover the preservative

with waterproof building paper. This material is on the market as a ready-to-use paste.

Above Ground Treatment of Dry Posts or Poles

If it becomes necessary to treat above-ground areas of posts or poles, first trim away the rotted area, then flush the entire above ground pole or post surface with a 5 percent solution of penta. (A 5 percent solution is made by mixing 1 gallon of 40 percent penta concentrate to 10 gallons of diesel or fuel oil, or used crankcase oil.)

TREATING GREEN POSTS

This treatment can be used on freshly cut, unpeeled posts that are in the fence line.

For posts 3 to 6 inches in diameter, bore two holes 5/8-inch in diameter and 2 inches deep. The holes should be slanting downward. (See diagram.)

Into each hole, place 2 teaspoonsful of the powdered wood preservative, then plug these holes with either a cork or 5/8-inch doweling. A small funnel can be used to pour the chemical into the holes.

The wood preservative is poisonous, and you must prevent livestock from licking it.

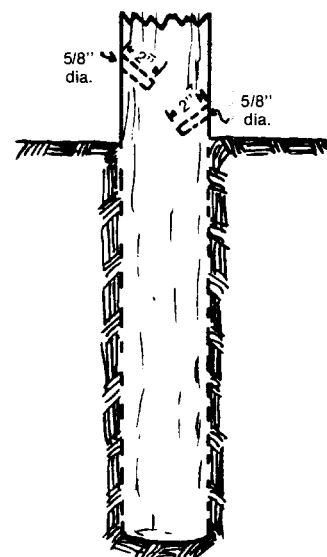
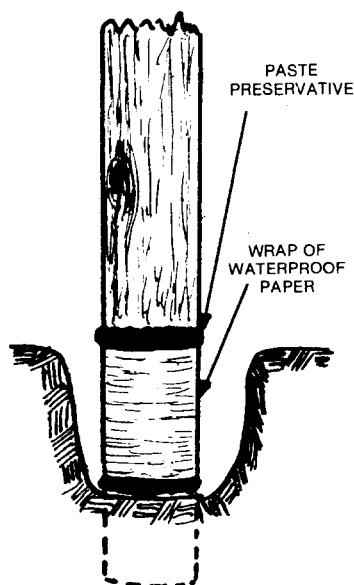
Make the wood preservative by mixing together

1 pound corrosive sublimate
(bichloride of mercury)

1 pound of arsenic

1 pound of common salt

This mixture should treat about 40 average-size posts.



POST PREPARED FOR SALT TREATMENT.