

TREATING FENCE POSTS WITH PENTACHLOROPHENOL FUEL OIL SOLUTIONS

By CHARLES S. WALTERS

Coal tar creosote is used for posts but due to its unavailability, coupled with the high costs of other kinds of preservatives, pentachlorophenol was tested.

The material used in the test was a 5% solution of pentachlorophenol in a petroleum solvent. It should be remembered that this chemical is highly toxic practically to all fungi, bacteria, and other microorganisms. As it causes dermatitis on the skin if left for any length of time, Neoprene gloves were used to protect the hands and arms during the treatment. Ordinary gloves may be used provided soap and water is used to wash the hands and arms at short intervals during the treatment.

Unlike other preservatives, pentachlorophenol does not need heat to facilitate its penetration. It is said that it is comparable to coal tar creosote in effect and possesses the advantage of a clean, non-discoloring, non-bleeding, paintable treatment. As a result of the tests made, a post (4.8 inches) in diameter, one cubic foot in volume) absorbing 1/2 gallon of the solution is produced for only 40 cents, not including equipment which varies with the size of the treating job, and the number of years it is used. Percentage of the solution and length of time of immersion vary with species. It was found out further that soaking white pine in standard 5% solution for 48 hours was believed sufficient, the sapwood being treated completely.

F. V. B.

MOISTURE-ABSORBING AND RETAINING CAPACITIES OF VARIOUS TREE PACKING MATERIALS

By FRED R. NEWCOMMER

Millions of forest and shade trees packed in various kinds of packing materials are shipped annually from nurseries in all parts of the country but little information is available as to the efficiency of such tree packing materials. This study was made to determine the moisture-absorbing and retaining capacities of shingletow, wood shavings, tree moss, hardwood leaves, pine needles, larch needles, oat and wheat straw, although same studies were made previously on these materials but for different uses other than for tree packing. One investigator who made further experimentation with barn bedding materials states, concerning dry sawdust and shavings, that their absorptive capacity according to fineness and dryness is from two to four times that of ordinary straw. W. F. Will found that

sphagnum moss and tree moss will absorb sixteen and eighteen times, respectively, their own weights of water but no report on their retaining capacities.

Some of the desirable qualities of a tree packing material are that it should be cheap, readily available in sufficient quantities, easy to handle in packing, free of weed seeds or of offensive odors, free of substances which will injure the trees, will not heat or mold during shipment, and will retain a sufficient amount of water to keep the trees from drying out during shipment.

It was found in this study that the set of the above materials wrapped in waterproof paper and packed in burlap bags retained more moisture than the corresponding sample not wrapped in the paper for the same period of time. As a result a table showing the tree packing materials ranked according to moisture content at various intervals of time was prepared, which is useful in determining the right packing material to be used for a length of time from packing to planting. For instance when a tree shipment requires two days from packing to planting, tree moss with waterproof paper is logical and shingletow with the paper would be the second best. If waterproof is not used there moss is preferred and shingletow second best. For a six-day slip-paper and shingletow as second best, or in hardwood leaves and paper as third choice.

ALFONSO I. TIAM

* * *

LUMBANG MEAL AS WOOD ADHESIVE

By CIRILO SERNA

Lumbang (*Aleurites mollucana*) bears seeds which are a source of oil. After extracting the oil, the meal, which is rich in protein is thrown away as a waste product.

Our plywood industry uses much glue with which to join veneer. The use of lumbang meal as wood adhesive gives a new utility to this material which is otherwise wasted. Moreover, a cheap and ready source of raw materials for the manufacture of glue could be had, thus reducing our costly imports of glue.

Two sets of studies were made along this line, and the latest outstanding results so far are the following:

1. The proportion of one part lumbang meal to five parts water gave the best adhesive product.
2. Boards pressed 12 minutes after the application of glue had the highest adhesive strength of 1120 pounds per square inch.
3. Boards subjected to a three-hour pressure after

(Continued on page 43)

SUNSHINE CORNER

A conservative forest ranger gave last-minute instructions to his daughter who was on her way to Manila to win a B.S.E. degree: Remember to bring home the Education but not the Bachelor!

Forestry and agriculture students love to argue among themselves on which college has the higher standard, forestry or agriculture. A bright forestry student won the argument by saying, "Our college is the highest, as a matter of fact, in the entire U.P." adding quickly, "by elevation".

Professor in forest finance: Give the different kinds of profit that you know.

Wise student: Gross profit, net profit and no profit!

Instructor reprimanding student: Look at all those bent nails, they go to waste. When hammering, use your head, ha?

Student: But sir, my head is not that hard.

Excursionist: You must know all the names of these trees.

Freshie, in a matter of fact way: Oh, just the scientific names.

Excursionist: What is the name of that tree then?

Freshie, without batting an eye: *Hindicus alamus*.

Prof. in Spanish: Hey you, sleepyhead, what is the masculine form of *Americana*?

Student, to prove he is not half asleep, answers: *Pantalon!*

A: I can't memorize that poem in Spanish by tomorrow.

B: Neither can I. But if we cannot do it, we will have to write the poem a hundred times.

A: I know that, but what shall we do?

B: Time is fleeting, let's start writing now.

Prof. Franco: What is that economic law that controls price?

Half-awake senior: PRISCO sir.

Ping: You say that your father handles two jobs in the government at the same time. How can that be?

Pong: Very elementary, you see, he is the collector of the internal and external revenue.

Freshie: Boy, that 3-dimensional picture I saw was wonderful. I found the lion on my lap.

Sophie (who wins every argument with a freshman): Lion, nothing. When I watched the 4-dimension show, I found an honest to goodness woman on my lap.

EXCERPTS AND . . .

(Continued from page 42)

gluing gave the highest average specific adhesive strength.

4. A maximum of six-hour long soaking in water at ordinary temperature did not weaken the adhesive, but soaked longer than six hours, the glue joint weakened.

* * *

WOLMANIZED PROCESS EXPLAINED

The Philippine Institute of Architects held a meeting at the PIA clubhouse. It was sponsored by the Wood Preservative Division of the Atlantic Gulf and Pacific Co. with Robert D. Hammond, sales representative of the division as guest speaker.

The architect-members heard Hammon explain the principles, values and the advantages of the "Wolmanized" pressure-treated lumber process which will be undertaken soon by his firm for local building demands.

According to the extensive tests undertaken by the firm, this pressure-treatment for wood will revolutionize the cost of wood construction as the firm intends to treat only the soft-fiber woods such as

Apitong, Lauan and Tanguile, both in rough stock lumber and plywood boards so as to protect them against dry-rot, fungi, termite and borers as well as to make them water-proof. Hammond said presurized treated wood may be kiln-dried after treatment and may be painted with any oil-bound paint or stained and varnished according to the needs of the architect.

Life expectancy of treated wood is claimed by the firm to be ten times longer than untreated wood of the same quality and under the same exposed conditions. Considering that these woods are amongst the cheapest of domestic commercial woods and the most in demand for low-cost structures, members of the institute foresee the great economic significance in the practical applications of this new treatment not only for low-cost projects but also for public housing projects of wood construction.

PIA treasurer, Francisco B. Fajardo who recently arrived from an extended business and pleasure trip from the United States and Europe, also gave a brief report on his travel impressions abroad. After the meeting, architectural and technical films were projected through the courtesy of the USIS facilities.

Sunday Times, Aug. 9, 1953