

Sci  
S  
537  
W35  
no. 3109  
c.2



E.M. 3109  
April 1969

LIBRARY

JUN 20 1969

WASHINGTON STATE UNIVERSITY

## PAINTING, STAINING AND REPAINTING BUILDINGS

If you are thinking about repainting your house this spring, remember most urban homes are painted more often than necessary. An overly thick paint film caused by too frequent paintings or coatings that are too thick may lead to a paint failure called cross-grain cracking. Failure of this type can be identified because paint usually cracks in the direction of the wood grain and brush strokes. However, cross-grain cracks run across the grain of the wood and brush strokes. Cross-grain cracking is a serious problem, because it leads to unsightly scaling. Remedy of the situation requires the complete removal of the old paint.

Washing the paint may give you new paint appearance without repainting.

Repaint only when the old paint has weathered to the extent it no longer adequately covers or protects the wood.

If the paint has peeled and exposed wood surfaces in a few spots, remove the loose paint with a putty knife, scraper, or wood chisel. Then feather the edges of the remaining paint with sand paper, however, be careful not to hollow-out the wood while sloping the edges of the paint. Treat the bare wood with water repellent preservative containing penta. Allow the penta treated wood to weather several good drying days prior to priming. Then spot prime the penta treated wood with zinc free house paint primer. Remove dried and excess paint chalk with steel wool. Wash old, glossy and unweathered painted surfaces found in protected areas or roughen them with steel wool. Treatment of this type removes material which may interfere with paint adhesion and may cause intercoat peeling to occur at a later time.

### Exterior Stains

When you are thinking about a finish for your home, cottage, farm buildings, and equipment, patio, wood fence or wooden lawn furniture, consider stains. The modern oil base penetrating exterior stains made from the Forest Products Laboratory Natural Finish formulas, are gaining wide acceptance.

The Laboratory at Madison, Wisconsin, released formula for cedar color, light and dark redwood, about 15 years ago. Since that time other color modifications have been suggested.

These oil base exterior stains are ideal finishes for rough sawn and weathered lumber which has rough and fuzzy textured surfaces.

The finish penetrates into the wood without forming a continuous film on the surface. Therefore, it will not blister, crack, peel or scale, even if moisture penetrates into the wood.

COOPERATIVE EXTENSION SERVICE • COLLEGE OF AGRICULTURE • WASHINGTON STATE UNIVERSITY • PULLMAN

In cooperation with the United States Department of Agriculture

Issued in furtherance of the Acts of May 8 and June 30, 1914, by the Washington State University

Cooperative Extension Service, John P. Miller, Director

These characteristics also make it an ideal finish for use on smooth plywood and other smooth knotty or flat grain lumber.

You should allow smooth plywood and lumber to weather for a couple months before staining. The weathering of the wood and the resulting checks and cracks will increase adsorption of the stain. This will result in a longer stain life.

One coat of stain on smooth flat surfaces may last about 3 years. One coat on rough sawn or weathered material should last 6-8 years. The stain may be applied by either brush or spray and only one coat is required. Refinishing after a previous application has worn, weathered and faded away is equally easy.

The following color in oil pigment modifications for the 5 gal. batches described in Forest Products Laboratory 046 publications are suggested:

Green Gold

Chromium oxide ..... 1 pint  
Raw sienna ..... 1 pint

Charcoal Black

Lampblack ..... 1 quart

Greenish Dark Brown (Tobacco)

Chromium oxide ..... 1 pint  
Raw sienna ..... 1 pint  
Burnt Umber ..... 0.9 pint

Tan (Burnished Gold)

Raw sienna ..... 1 quart  
Burnt umber ..... 3 fl. ozs.

Chocolate Brown

Burnt umber ..... 1 quart

Forest Green

Medium chrome green .. 1 quart

Smokey Gray

White house paint .... 1 quart  
Raw umber ..... 6 fl. ozs.  
Lampblack ..... 3 fl. ozs.

Gray-Green

Medium chrome green .. 1.75 pints  
Lampblack ..... .25 pint

White

White lead,  $TiO_2$ ,  
or zinc paste ..... 1 quart

Fruit Wood Brown

Raw sienna ..... 1 pint  
Raw umber ..... 1 pint  
Burnt sienna ..... 1/2 pt

A list of known manufacturers of the FPL Natural Finish stains is available from the Forest Products Laboratory at Madison, Wisconsin 53705.

Tips for Successful Spring Painting

For your successful spring painting consider the following points:

First clean all surfaces to be painted. Remove grit and sand with a stiff bristle brush. Wash off dirt and grime.

After cleaning treat all bare wood with a water repellent preservative containing penta. Allow this treated wood several days of good drying weather prior to application of primer. If the primer is applied too soon after the preservative, it may develop alligator type wrinkles.

When you apply the paint follow the sun around the building. That is, paint the area after the sun has heated it not before. This will prevent development of temperature blisters in the paint film. Apply oil base paint and stain when the temperature is above 40° F. If it has rained allow the wood to dry several hours before applying the paint or stain.

Apply water base or emulsion paint only when the temperature is above 50° F. During hot, dry, windy weather, sprinkle surfaces to prevent paint drying too rapidly.

Even if your ambition and enthusiasm are running high, do not paint late in the evenings of cool spring days when evening dew may form. The dew may cause wrinkles and flatting of fresh oil base paint and water marks on fresh latex emulsion paint.

On a multiple coat job apply each succeeding coat within two weeks of the previous. If more time than this elapses, soap like substances may form on the surface which may cause intercoat peeling at a later time.

#### Refinishing Exterior Stained Wood

Prepare the wood surface before you apply the stain. Brush spots of grit and dirt from the surface with a stiff brush or steel wool. Renail loose boards. Use aluminum nails to prevent rust and discoloration streaks.

Thin your oil base stain with one quart of mineral spirits per gallon of stain.

Apply only one coat of stain. You may use either a brush or spray gun. Apply liberally at the rate of one gallon per 200-250 square feet on rough surfaces and 500-500 square feet on smooth surfaces. All the stain you apply should soak into the wood without forming a paint like surface film.

Apply when the temperature is above 40°F. If it has rained, allow the wood to dry several hours before applying the stain. You can proceed after the surface is free of standing water.

Start the sidewall staining at the highest point on the building. Divide the area into workable sections, so you can stain the full length of boards or course of siding without stopping for more than five minutes. This is important to prevent lap marks where the fresh joints with the partly dried stain.

---

Eric B. Wilson  
Extension Agricultural Engineer

EBW/rl  
4/69/500