NEWS RELEASE

USDA FOREST SERVICE • FOREST PRODUCTS LABORATORY
One Gifford Pinchot Drive • Madison, WI 53726-2398 • Website: www.fpl.fs.fed.us

FOR IMMEDIATE RELEASE February 15, 2007

NR # 20070215-01

Contact: Rebecca Wallace, (608) 231-9275
E-mail: rwallace@fs.fed.us

SPRINGTIME MEANS DECK MAINTENANCE FOR MANY HOMEOWNERS

MADISON, Wis.— Although there is still snow on the ground in some places, it's not too early to start think about refinishing your deck. In fact, according to Sam Williams, a supervisory research chemist and "deck expert" at the USDA Forest Service Forest Products Laboratory (FPL), the time is coming soon to take advantage of the cooler weather.

"Mid to late March is the best time to clean your deck in preparation for the refinishing," says Williams. "A cool, cloudy day is ideal. That allows your deck to stay wet and the cleaner then has time to work."

Prep work is important

Williams says before refinishing your deck, you first must clean it. He suggests using a commercial cleaner having sodium percarbonate as the active ingredient. A 4:1 solution of water and household bleach with a little added powdered laundry detergent may also be used. (Williams says it is important to use powdered detergent. Liquid detergent, particularly those containing ammonia, can form noxious vapors when mixed with chlorine bleach).

Williams advises against using an overly aggressive cleaner, and to start with a gentle mixture. "Some cleaners are so strong that they will pulp the surface of the deck," Williams said. "That is not what you want." Laundry bleach tends to cause excessive pulping of the wood surface, resulting in the removal of the wood surface. This is particularly true for cedar decks. Watch for signs of this damage as you wash; if there are a lot of loose fibers washing away as you clean and rinse the deck, you probably have excessive pulping.

Williams adds that it is important that you let the cleaner or bleach do the work, protecting the vital surface wood from damage. Aggressive scrubbing or using a power sprayer can do damage to the surface that later makes it hard for an absorbing finish to work properly.

Williams suggests using a kitchen broom or sponge mop to spread the solution out on the deck. Let the solution sit for about 15 minutes, keeping the deck wet.

For large decks, treat no more than 200 square feet at a time. If you try to treat too large an area, it is too difficult to keep the deck wet during the treatment. Following the treatment, rinse with large amounts of water using a garden hose for at least 10 minutes.

After cleaning your deck, you should let it dry for at least one day in the sun, but “two to three are probably better, and you can easily wait two to three weeks before adding a finish,” Williams says.

“I like to wait until April,” Williams says. “The warmer the weather, the better the penetrating finishes work.”

Choosing a finish

According to Williams, choosing a good penetrating finish is the most important part of maintaining your decks performance and appearance. There are currently three choices of finishes on the market: Clear finishes such as water repellants and water-repellent preservatives (WRPs), tinted finishes and deck sealers, and semitransparent stains.

Modern water repellants are usually water-based and contain a water repellent and a sealer. Traditional water repellents were usually oil-based and had organic solvents (mineral spirits or turpentine) as the solvent for the sealer (linseed oil or varnish), and a water- repellant (paraffin wax).

“We used to think a repellant had to be oil-based to be effective,” Williams says, “but we’re actually getting good results with some of the new water-based repellants.”

WRPs are similar to water repellents, but contain a mildewcide or preservative to help control mold, mildew, and algae. One advantage to using unpigmented sealers is that they generally take only a short time to apply, maybe only an hour for a typical deck. But they also have the shortest life of the three, generally only lasting about one year.

Tinted water-repellant preservatives are lightly pigmented to give the finish more color, but not as much as semitransparent stains. They color the wood slightly, but you can still see the grain. The added pigment increases the service life of the finish about two years, but they also take longer to apply. More care must be used to ensure an even coating.

Semitransparent stains have a much higher concentration of pigments, and provide the longest service life of all (about four to six years depending on a number of factors), but they also take the longest to apply. They are also succeptible to lap-marks, which occur when the application of fresh finish overlaps an area that has already been finished. To avoid lap-marks, apply the finish to the full length of just two to four boards at a time. Repeat this process, taking

care to avoid applying finish to any boards that have already been completed. “If you’re using a semitransparent stain, you’re probably looking at an all-day job,” says Williams.

Williams adds there are many things to consider when choosing a finish. The service life of a WRP is only about a year for the exposed surfaces most decks, but they are the easiest to reapply. They absorb easily into the wood, and because they are not pigmented, problems with uneven wear and brush marks are eliminated. Williams says if you’re unsure whether to stain or use a WRP, apply a WRP to the deck first. You can always switch to a semitransparent stain when the deck needs to be refinished.

“Personally, WRPs are the route I go,” says Williams. “For me, it is easier to do my deck quickly every year or two, and I’ve gotten pretty good at it. My record is about 40 minutes to clean the deck and 20 minutes to apply the WRP a few days later. However, some people like the color of a stain, or prefer to do it once and then forget about it for a few years. The are a lot of options, but in general the more pigment, the longer the finish will last and the more difficult it is to refinish.”

The USDA Forest Service Forest Products Laboratory was established in 1910 in Madison, Wis., with the mission to conserve and extend the country’s wood resources. Today, FPL’s research scientists work with academic and industrial researchers and other government agencies in exploring ways to promote healthy forests and clean water and improve papermaking and recycling processes. Through FPL’s Advanced Housing Research Center, researchers also work to improve homebuilding technologies and materials. Information is available at FPL’s Web site: www.fpl.fs.fed.us.

# # #