

Woodworking Tips

Show Off Figure with Dye

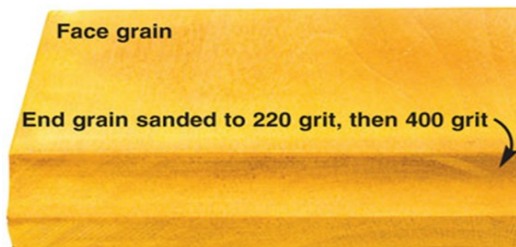
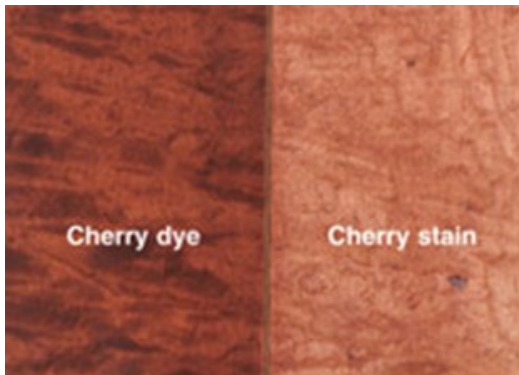
Quilted maple and other figured woods gain depth as well as brilliant color when you choose this type of stain. Here's everything you need to know for success.



Starting off

If you've used commonly available, premixed canned stains for years with good success, you may be wondering "Why use dyes? Who needs 'em?" Well, you may. Compared to pigmented stains and pigment/dye mixes -- what you typically find on hardware store shelves -- dye produces a clearer appearance that shows off the grain much better. The difference really stands out when you dye dense wood that doesn't accept stain well or figured wood, such as curly maple. Stain tends to create a bland look on figured wood, while dye gives the surface an attractive undulating appearance. See the photo *right* for examples, of coloring curly maple.

Stains and dyes produce different looks because they color wood in different ways. Pure pigment stains only partially penetrate the wood, doing most of their coloring by lodging in tiny surface cracks and pores. If the wood is dense and smooth, like maple, pigment particles find few places to rest. Gel stains are thicker than standard stains and form a film on the surface with very little penetration. They prevent blotchiness but also obscure the grain. Dye, however, dissolves completely in its solvent, goes wherever the solvent can penetrate, and actually changes the color of wood cells. It allows the grain to clearly show through. Some stains contain both dye and pigment, but the combination doesn't solve the problems presented by dense woods.



Dyes are sold in liquid and powder form, and every dye is designed to dissolve in one or more types of solvent: water, denatured alcohol, or an oil such as toluol or turpentine. For your first efforts with dye, buy water-soluble powder for ease of use, reliable results, and good resistance to fading.

Dyes are available at woodworking stores, on Web sites, and from mail-order catalogs. We've had good results with powdered dye from W.D. Lockwood & Co., available in 1-ounce packets, depending on the color. Call 866/293-8913 to order, or visit wdlockwood.com.



No matter how you color the wood, the end grain of any wood species presents a uniformity problem because it soaks up more dye or pigment, resulting in a darker color compared to face- and edge-grain surfaces. To produce a more consistent appearance, try one of two methods shown *right*. Before staining, sand the end grain with a finer grit than used on the rest of the wood, or seal the end grain with premixed shellac thinned 50/50



with denatured alcohol and lightly sand with 220-grit sandpaper after the shellac dries.

Note: All face grain sanded to 220 grit



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Let's apply some dye

Boil water, let it cool for 1 minute, and add powdered dye in the ratio of 1 ounce per quart of water. Let it cool Mix the dye thoroughly and pour it through a coffee filter, as shown here, or pantyhose. This step removes undiluted lumps of dye.

Let's apply some dye

Here's how to proceed with water-soluble dye, the type we prefer in most instances. When your project or its parts are ready to finish, sand the wood as usual and then raise the grain by wiping it with a water-dampened cloth. Let the project dry overnight, and then sand lightly with 320-grit sandpaper. This method prevents tiny wood fibers from rising again after you apply the dye.

Next, mix dye as shown in the photos *at right*. Use a glass or plastic container, and prepare more than enough dye to complete the job so you don't apply mismatched tones from two separate batches. Test the result on scrap that matches your project.

Use a foam brush or a common household sponge to apply water-soluble dye on wood, working in any direction. Flood the surface as quickly and evenly as possible to prevent lap marks and streaks. Also avoid drips on untreated areas. Coat the entire project at the same time. When possible, break large pieces into component parts, or apply dye prior to assembling project parts, to keep your dyeing area at a manageable size. When the surface is covered, wipe it immediately with a soft cloth to remove excess dye as shown *right*.

before application.



Fine-tune the result



Guarantee an even distribution of dye by wiping off the excess. If you apply the dye with a sponge, wring it out and use it for this step.

A moist cloth lightens the color even after the dye has dried, but you get quicker results if you act while it's still wet. Fine-tune the result

If the tone looks darker than you planned, it's best to lighten it immediately. See the basic technique in the photo *right*. In extreme cases, when the result is far from what you expected, it's possible to return to the starting point. Lighten the dye with water, and then remove the rest of it from the wood with common household bleach containing chlorine.



If you want to darken the result of your initial dye application, do so with another coat of the same mixture or make a stronger batch and apply that.

Once you become familiar with dyes and the colors they produce, experiment with color adjustment. After dyeing a surface, add a different-color dye to produce a combination of the two. For example, apply red to warm up a cool wood-tone color or add blue to cool down a warm tone.

When the color looks perfect, let the dye dry completely. Drying dulls the appearance of a dyed surface; a clear topcoat restores the color and shine that you saw in the wet dye. Use any topcoat over dye, but be careful if you choose a water-based finish. Brushing water-base over water-soluble dye tends to redissolve the dye and pull it up into the finish, creating a muddy look. Spraying eliminates this

problem.

Change tactics for alcohol-soluble dyes

If you decide to try alcohol-soluble dyes, keep these pointers in mind:

Mix them in denatured alcohol -- not rubbing, or isopropyl, alcohol available at hardware stores and home centers. DO NOT heat this flammable solvent.

Spray alcohol-soluble dyes to avoid streaking caused by the solvent quickly flashing off. Use a spray gun powered by compressed air or handle small jobs with a unit such as the compressed air or handle small jobs with a unit such as the Preval spray system. Available at home centers, it consists of a 6"-long pressurized sprayer and a detachable glass jar.

Order it online by going to dickblick.com. To color pine, a notoriously blotchy wood, Steve Mickley recommends mixing alcohol-soluble dye with shellac and spraying this toner mixture on the surface. The tinted shellac forms a film on the wood instead of soaking in.





If you're tired of paying top dollar for home-centre wood, try these tips for saving money

Look for diamonds in the rough

Your next project calls for quilted maple? Dig through the home-centre bins containing standard flat sawn maple and you may be rewarded for your effort. Figured pieces typically don't get sorted out from the rest and cost the

same as less attractive pieces.



Turn to the web

A Google alert scans the web 24/7 for any item you name and sends you an email when it's found. Set alerts to look for mentions about lumber, auctions, estate sales, and yard sales that may include woodworking supplies and lumber



Find a local mill

Search online or in your regional yellow pages for mills or sawyers. Sure, you'll have to plane and joint the wood yourself, but the savings are worth it. Your woodworking club or guild may have existing connections with a local mill and maybe discounts too.



Join forces, save money

Hardwood lumber dealers typically give price reductions for high-volume purchases -- usually beginning at 100 board feet. Don't need that much lumber? Combine your order with friends or fellow woodworking club members to take advantage of volume discounts.



The trick to clear-coating a project quickly, says finishing expert Bob Flexner, is in the second coat. The first application of any finish acts as a sealer, filling pores and locking any errant wood fibers in place. But the second coat begins to add visual depth and protection. In a time crunch, you need a finish that cures to a sandable hardness fast enough for you to apply that critical second coat. A few caveats, though: Film-forming finishes start their journey to film-dom when solvents or thinners begin to evaporate, a process that happens best in warmer temperatures. In cooler-than-ideal conditions, accelerate the drying speed by circulating the air around -- not on -- your project using small fans. This keeps air flowing without blowing dust directly into the drying finish. You could run into the opposite problem in a warm shop: Dry winter weather causes some finishes to dry too quickly, broadcasting brush strokes and locking drips in place. Where necessary, thin finishes for easier application. And crack a window or door to keep a fresh air exchange even if it means cranking up the heat for a time. Then check the calendar and choose one of the following fast-drying finishes.



Because it cures by evaporation, lacquer dries extremely fast, but the high solvent content means continued off-gassing of noxious fumes that could knock Santa on his bowl-full-of-jelly backside. So wrap up a lacquer finish with a couple days to spare.



Spray the first coat starting with the nooks and crannies, moving to edge and end grain, and finishing with wide flat surfaces. Begin each sweep off the wood, moving across the project, and then off the other side, overlapping the spray pattern as you progress.

After the first coat dries (30-45 minutes in a warm, dry shop, 60-90 in a cold or humid shop), sand with 320-grit sandpaper, remove the dust, and apply a second coat. No more sanding after that first coat, and you can recoat as quickly as the previous one dries. Let the project sit in a well-ventilated area on the 23rd and 24th before dropping it under the tree.

The downsides: Aerosol lacquer works great for small giftables but becomes pricey for large projects. And lacquer's fumes necessitate both ventilation and a respirator when spraying.



Another evaporative finish, shellac dries nearly as quickly as lacquer. But the fumes from Shellac's solvent -- usually denatured alcohol -- aren't nearly as potent, allowing you to push your deadline a bit.

Pre-mixed shellac found on home-center shelves usually comes in a 3-pound cut (three pounds of shellac flakes for each gallon of alcohol). To speed drying and improve brushability, thin this to a 1 1/2-pound cut, mixing equal parts finish and denatured alcohol.

Then use a natural-bristle brush and spread the shellac quickly to avoid noticeable brush strokes. If you leave gaps of unfinished wood in your stroke pattern, don't try to rebrush them; catch them on the next coat.

Allow the first coat to dry for 90 minutes in a warm and dry shop (two hours in a cold or damp shop). Then sand lightly with 320-grit sandpaper, cleaning or switching the paper if it starts to gum up. Remove the dust and repeat for the remainder of the day -- coat, dry, sand -- until you are satisfied with the buildup. Give your project a rest on Christmas Eve and give it away on Christmas.

The downside: Shellac has a limited shelf life (around three years). So, if you can't find a manufacturer's date on the can, ask the retailer about the freshness of their stock on hand.



Water-based polyurethane has many advantages: It dries fast, builds fast, and puts off only minor fumes, so you can finish indoors.

For best results, stir the can well, and apply with a synthetic or foam brush. Use a brushing technique similar to that for shellac: Work fast, apply a thin coat, and avoid overworking the finish.

Allow two hours for the first coat to dry. If the grain raises noticeably, don't sweat it. Sand it smooth again with 220-grit sandpaper, remove the dust, and apply the next coat. Water-based poly builds fast, so two or three coats usually suffice.

The downside: Because it dries so quickly, water-based polyurethane can be finicky to brush. It is temperature-sensitive. And it raises the grain. But follow the steps above, and when the last coat dries, the minimal fumes mean you don't have to wait. Drop the gift under the tree, nestle yourself snug in your bed, and watch visions of sugar-plums dance in your head.



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Club/Guild Newsletters;

This Club/ Guild aims to assist members to improve their woodworking skills. Not all such activities occur in our Club premises, and some activities or events are promoted through this Newsletter and others directly to members in some other ways, but they are still Club/Guild activities, please support them. These activities may include personal and group tuition of members by other members (we all try to help one another for the benefit of the Club/Guild in this way) sessions in member's workshops, wood- gathering, events promoting our activities to members of the public, and other such activities and events.

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