# fundamentals

# Is it time to get a fresh edge?

SIGNS THAT YOUR TOOLS ARE LOSING THEIR CUTTING POWER

BY STEVE SCOTT

eginning woodworkers are told often about the importance of keeping tools sharp. Deciding when to stop and resharpen or replace a tool ultimately depends on how much poor performance you're willing to accept. Applying that lesson, however, takes practice. For starters, how can you tell when a tool is losing its edge?

Christian Becksvoort calls the descent from sharp to dull "a gentle, downward curve, with steadily declining results and ever more effort required." We asked Becksvoort and other contributing editors to describe some indicators that it is time to sharpen. The three warning signs: effort, results, and tool condition.

#### How hard are you working?

When deciding whether a tool is losing its edge, "my first clue is an increase in cutting resistance," says Garrett Hack.

Simply put, a dull cutting edge on a hand or power tool requires more force to cut the wood. On router tables, for instance, a dull bit means you'll have to **Showing some wear.** As a handplane blade dulls and gets nicked, the shavings no longer come off as a wide ribbon but are sliced down their length.

exert more pressure to keep the wood against the fence.

"A dull bit will tend to push the material away," Roland Johnson says. "A sharp bit just cuts." In similar fashion, a dull jointer knife wants to lift a board off the table.

You'll have to push harder to move stock through a cut if a bandsaw or tablesaw blade is dull. A dull tablesaw blade requires extra effort even if cleaned of gum and pitch, Becksvoort says.

On the bandsaw, you'll find yourself pushing the blade against the rear thrust

### **Power tools**

The brute force provided by an electric motor can't overcome the effects of a dull blade or bit. You'll work harder to feed the stock or guide the tool, and the finished cut will not be clean.



**More push needed.** The extra force required to feed stock into a dull bandsaw blade can cause the blade to wander. A rough, wavy cut is the result.



**Slow going.** A dull tablesaw blade requires more effort to feed stock into the cut, and the difference shows in the work. Although a dull blade won't look markedly different from a sharp one, it can leave stock looking burned and scarred.

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## fundamentals continued

### Hand tools

As it dulls, a chisel or plane iron will gradually offer more resistance to the force you apply.





**A sign of wear.** A dull plane iron will show a telltale line of light near the cutting edge. A sharp blade won't.





bearing as you force stock through a cut, according to Gary Rogowski. This is more apparent with thicker stock.

With handplanes, Hack says, a dull edge is most noticeable on end grain. And dull chisels are harder to handle.

"On long grain I have to push harder," says Hack, "and I sometimes lose control because the dull edge wants to dive into the fibers rather than sever them."

Becksvoort sharpens his chisels after one large dovetailed case or two or three smaller pieces.

#### What do the results look like?

If increased effort is the first sign of a dulled edge, poor results are the surest.

Jointers and planers will leave tearout when blades are dull. Becksvoort changes them after two to four months of frequent use. The dulled blades give the wood a polished appearance that is "very shiny, but not particularly smooth."

A router with a dull bit can burn the stock, but that also can happen with a slow feed rate. A surer sign, Hack notes, is a cut with feathery or splintered edges.

On the bandsaw, Rogowski says, a dull blade will wander and yield a wavy cut, or begin to drift increasingly to one side.

With chisels, Becksvoort finds that when chopping dovetail slots, "I begin to get an unacceptable amount of tearing as I chop down across the grain."

Hack gauges the sharpness of a handplane edge "by looking at the shaving and by feeling the surface." On long grain, he looks for tearout and a dull or slightly rough surface. "The shavings no longer come off as a continuous thin ribbon but are getting sliced down their length at each nick, or they have holes where tearouts occur."

### How does the tool look?

If you are still unsure that you have a dull blade, look at the edge itself.

On plane irons and chisels, a dull blade will reflect a line of light at the cutting edge. Dull sawteeth are much harder to see. They won't look or feel any blunter than sharp ones. But if a good cleaning doesn't improve their cutting ability, you'll know the edge is suffering.

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