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THE "FISH" CUT TO AVOID SPLITTING

Chain Saw: felling *June 2000*

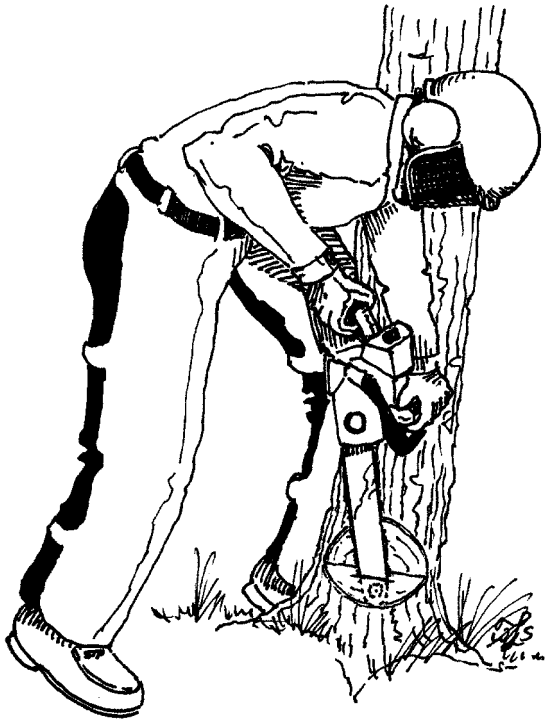

Fig 1: To make the FISH Cut, the logger first makes the notch and wing cuts, then, following the angle of the top cut, bores with the attack side of the saw tip down through the apex of the notch.

INTRODUCTION: Each year, millions of dollars are lost when trees split during felling. High-value veneer logs are especially prone to splitting, and improper felling cuts and the forces of gravity have sent many logs to the pulp pile. To the frustration of many who work in the woods, techniques for preventing this problem, such as greater notch openings and wing cuts, do not always work. To compound matters, not only does a split tree represent a potential loss of revenue, it also poses a safety hazard to the feller.

1998 National Game of Logging Champion and Certified Logging Professional Mike Thurlow, of Lee, Maine, has faced this problem for the 21 years he has worked in the woods. In December of 1998, Thurlow, a part-time CLP instructor, solved his dilemma by developing a technique that he calls the "FISH" Cut, which stands for Floating Inside Safety Hinge. The FISH Cut creates a tail of wood that holds the tree on the stump as it falls to the ground, greatly reducing the occurrence of tree splitting and kickback.

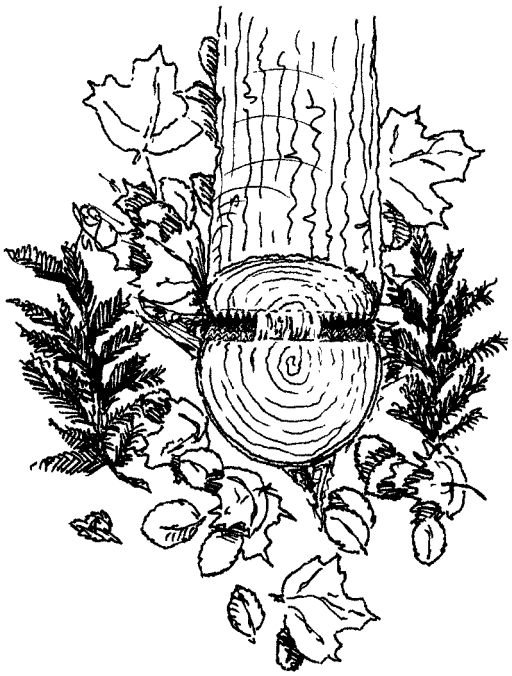

Fig. 2: The FISH Cut creates a tapered strap of wood that is pulled from the stump, releasing tension and preventing splitting. Because it extends into the stump, it holds the tree in place as it falls, keeping it from rolling or kicking back.

OPERATION: The FISH Cut, which is used with an open-face notch, is essentially a variation on a technique already in use. Many loggers will weaken the hinge on high-grade trees to prevent splitting. From the front side of the tree, facing the notch, they bore the tip of the saw into the apex of the notch (that is, the meeting point of the top and bottom cut) through the middle of the hinge, holding the saw level with the angle of the back cut. This practice weakens the hinge, allowing it to break when the

tension might otherwise cause the tree to split. The only problem with this technique is that when the hinge releases, the tree can roll or jump off the stump, endangering the logger.

When applying the FISH Cut, the logger makes the notch and wing cuts and then, while still standing to the side of the tree, bores with the attack side of the saw tip downward through the notch apex, four to six inches into the stump. The downward angle of the saw follows the angle of the top cut on the notch instead of running level with the back cut. This additional cut can be added very quickly. The logger then adds a bore cut and wedges if necessary and releases the tree from the back.

The logger must be careful to leave adequate holding wood on the right and left side of the hinge. When the tree falls, a tapered strap of wood fiber that looks like a fish tail is pulled from the stump along the hinge where the FISH Cut was made, releasing tension and preventing splitting.

Because the strap of wood extends into the stump, it holds the tree butt in place, preventing it from rolling or kicking back as the tree falls. This feature is particularly helpful when felling trees in a densely forested area, where a tree may twist as it hits other trees while falling.

Thurlow points out that if there is significant root swell in the butt of the tree where the notch is being made, loggers should move the FISH Cut a quarter- or half-inch out from the apex of the notch. Because of the swell, the angle of the wood grain would otherwise make the fish tail too short to hold the tree effectively as it falls. The length of the tail can vary according to the angle of the saw when making the FISH Cut, the thickness of the hinge, and the angle of the wood grain. A length of two to four inches on the tail is effective.

APPLICATION: Thurlow goes on to explain that the FISH Cut can be used on any species of tree, although it is particularly helpful with high-grade species with veneer log potential. He adds that it can be used year-round.

Thurlow cautions, however, that only skilled loggers should attempt this method, since it requires the ability to make an open-face notch that meets Game of Logging standards. Specifically, there can be no bypass on the notch and the hinge must be of adequate size and uniformity along its length. Precise cuts are very important when weakening the hinge.

In addition, Thurlow points out that it should not be used on trees with heavy side lean because a weakened hinge on a side leaner can pose a safety hazard. Loggers must carefully assess a tree's lean before using the FISH Cut.

COMMENT: For more information on the FISH Cut, contact Mike Thurlow, Certified Logging Professional, Box 4451, Lee, Maine 04455 (phone 207/738-2474).

To find out more about the CLP Program, call 1-800/668-3068, or log onto the CLP website at *www.moosehead.net/clp*.

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