

A **41 year old male** employee was **struck by a tree** during manually felling operations. The employer was hired to clear 30 wooded acres to create additional agricultural areas for the landowner.

The employer and the victim were working together as a team to manage the felled trees they were clearing. The victim would manually fell trees with a Husqvarna 372XP chainsaw (20-inch bar) and the employer would haul the felled trees down the hill to the landing with a Franklin skidder (Model 170 PTM-31A). There were two employees present at the landing who processed the felled trees. The employer and the victim had a routine to where 12 to 15 trees would be initially felled by the victim, then the employer would haul those trees to the landing to be processed.

The employer took several repeated trips back and forth with the skidder from the haul site to the landing, and the length of each trip was variable depending on the size of the tree(s) that were hauled and how many were hauled at the same time. In the interim, the victim would move to a new area to fell a new set of trees. About 1 pm, the employer brought the victim a snack to his work location in the woods. After the snack, the victim resumed his work felling trees, and the employer resumed his work hauling trees to the landing. At about 2:45, the employer had finished his work at the haul site, so he moved to the new location to where the victim was working to haul those trees. When the employer arrived at the new area, he noticed that only one tree was felled and soon thereafter discovered the victim deceased under the tree. The tree that struck the victim was a 74-ft, 13-in diameter walnut. The victim was pinned between the butt end of the walnut tree and a 6-in diameter tree that was along his retreat path.

The investigation determined that the victim would occasionally plan and clear retreat paths for larger-sized trees, but not consistently. Also, the investigation determined that the cuts in the conventional notch that he used on the walnut tree being felled did not allow for sufficient hinge wood that would allow the tree to fall in a controlled manner.

Several violations were discovered and recommended for citation.

**Citation(s) as Originally Issued**

A complete inspection was conducted at the accident scene. Some of the items cited may not directly relate to the fatality.

**Citation 1 Item 1**

**Type of Violation: Serious**

**\$1,200**

**29 CFR 1910.266(d)(1)(iv):** The employer did not ensure that each employee who operated a chain saw wore leg protection constructed with cut-resistant material, such as ballistic nylon:

In that an employee, who was felling trees with a chainsaw, was not wearing chaps.

**Citation 1 Item 2      Type of Violation: Serious      \$4,000**

**29 CFR 1910.266(h)(2)(i):** Before felling is started, the feller did not plan and clear a retreat path:

In that an employee did not establish a clear retreat path when felling an approximately 74 ft., 13 in diameter walnut tree.

**Citation 1 Item 3      Type of Violation: Serious      \$4,000**

**29 CFR 1910.266(h)(2)(vi):** The backcut did not leave sufficient hinge wood to hold the tree to the stump during most of its fall so that the hinge is able to guide the tree's fall in the intended direction:

In that an employee was fatally injured by the 74-foot 13-inch diameter walnut tree he was felling due to insufficient hinge wood that caused the tree to fall in an uncontrolled manner.

**Citation 2 Item 1      Type of Violation: Other-than-Serious      \$150**

**29 CFR 1910.266(d)(1)(vii)(B):** The employer did not ensure that each employee wear face protection meeting the requirements of subpart I of Part 1910 where there was potential for facial injury such as, but not limited to, operating a chipper:

In that an employee felling trees with a chainsaw in a remote logging site was not wearing a face shield.

**Citation 2 Item 2 a      Type of Violation: Other-than-Serious      \$150**

**29 CFR 1910.1200(g)(8):** The employer did not ensure that Safety Data Sheets were readily accessible to the employees in their work area during each shift:

In that the employer did not maintain the required Safety Data Sheets at the jobsite for each hazardous chemical in which employees were exposed, including gasoline, 2-cycle oil, chainsaw bar oil, and diesel fuel.

**Citation 2 Item 2 b      Type of Violation: Other-than-Serious      Grouped**

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**29 CFR 1910.1200(h)(1):** Employees were not provided effective information and training on hazardous chemicals or materials in their work area at the time of their initial assignment and whenever a new hazard was introduced into their work area:

In that the employees working at the jobsite had not been provided information and training concerning hazardous chemicals used, such as but not limited to, gasoline, 2-cycle oil, bar oil, and diesel fuel.





There is some damage to the lower portion of the bark of the small tree that pinned the victim. The victim was wearing a backpack and it likely contacted this portion of the tree and caused the damage.

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Probable tree fall sequence based on the evidence: Step 1. On the day of the incident, the victim intended for the tree to fall to the North (blue line) but instead, it fell to the West (red arrow).