

# Case Study Student Activity

**Directions:** Read the following report. Hi-lite anything that stands out as contributing to the incident. Use the knowledge gained to complete the last page of this activity.

## **Timber Cutter Dies After Being Struck From Behind by a Tree Which Became Entangled with the Tree He was Felling in West Virginia**

West Virginia Case Report: 04WV001-01

Report Release Date: March 12, 2004

### **Summary**

*On January 6, 2004, a 68-year-old male tree feller (victim) died of injuries sustained when he was struck from behind by a tree which became entangled with the tree he was felling. He was in the process of felling a 65 foot red oak with substantial back lean. As he began cutting the tree, the victim did not use a hinge to control the fell and wedge to compensate for back lean. He was unable to use his wedge because it became buried under the butt of the tree he had felled earlier. As he finished his final cut, the tree set back and began falling opposite of the intended direction. Accordingly, he changed his escape path and retreated in the opposite direction. He stood approximately 12 feet from the stump to watch the fell, but as the tree fell, its top became entangled with a small diameter 70 foot tall black birch whose root system was weak. The oak pulled the birch over, striking the victim from behind. Witnessing the incident, his son responded by running down to the victim, cutting the birch off of him, and lying him down. Realizing the extent of his father's injuries, the son went to the landing and told a log truck driver to call 911. The driver stayed with the victim while the son waited to direct the ambulance. Approximately 30 minutes passed from the time of the incident until EMS arrived. The victim died shortly after their arrival and was transported to the nearest medical facility where he was pronounced dead.*

### **Introduction**

*On January 6, 2004, a 68-year-old male tree feller (victim) died of injuries sustained when he was struck from behind by a tree which became entangled with the tree he was felling. On January 7, 2004, the West Virginia FACE Investigator was notified of the death by the West Virginia Division of Forestry (WVDOP). The incident was reviewed with the WVDOP representative, who then accompanied the Investigator to the site where an investigation was conducted on January 9, 2004. The victim's son, who witnessed the incident, was interviewed. The incident site was examined and photographed. Other informational sources and contacts included: death certificate, newspaper articles, WVDOP, and Occupational Safety and Health Administration (OSHA).*

*The logging operation was a father and son partnership. The land was privately-owned. The father had cut off of the land each year for the past 11 years.*

*The victim held Certified Logger status in West Virginia and the operation had the required DOF applications and subsequent approvals. [Note: The Logging Sediment Control Act of West Virginia (1992) requires that each timbering operation in West Virginia be supervised by a certified logger. To become a certified logger, an individual is required to successfully complete training and pass a test for best management practices (a soil erosion prevention plan) and chain saw safety as well as possess a current first aid card.<sup>1</sup> ]*

*There was no formal safety program and company safety officer. The victim's son did not indicate that formal company-specific training was provided. It was reported that the victim was a careful worker.*

*The victim's job at the time of the incident was felling trees. He had been a felling timber for at least eleven years. It was reported he had always used a wedge to ensure fell direction on almost every tree. At the time of the incident, the victim was wearing a hard hat, eye protection, hearing protection, chaps and chainsaw resistant boots.*

## **Investigation**

*On January 6, 2004, a 68-year-old male tree feller (victim) died of injuries sustained when he was struck from behind by a tree which became entangled with the tree he was felling. He was in the process of felling a 65 foot red oak with substantial back lean (see [Figure 1](#)). As he began cutting the tree, the victim did not use a hinge to control the fell and wedge to compensate for back lean (see [Figure 2](#)). He was unable to use his wedge because it became buried under the butt of the tree he had felled earlier. As he finished his final cut, the tree set back and began falling opposite of the intended direction. Accordingly, he changed his escape path and retreated in the opposite direction. He stood approximately 12 feet from the stump to watch the fell (see [Figure 3](#)). As the tree fell, its top became entangled with a small diameter 70 foot tall black birch whose root system was weak (see [Figure 4](#)). The oak pulled the birch over, striking the victim from behind (see [Figure 5](#)). Witnessing the incident, his son responded by running down to the victim, cutting the birch off of him, and lying him down. Realizing the extent of his father's injuries, the son went to the landing and told a log truck driver to call 911. The driver stayed with the victim while the son waited to direct the ambulance. Approximately 30 minutes passed from the time of the incident until EMS arrived. The victim died shortly after their arrival and was transported to the nearest medical facility where he was pronounced dead.*

## **Cause of Death**

*The medical examiner's report listed the immediate cause of death as multiple blunt force traumatic injuries.*

## Illustrations



**Figure 1** The photo shows the butt of the felled tree. Note the degree of back lean. The arrow represents the intended direction of the fell from the stump.



**Figure 2.** The photo shows the tree's stump. The white arrow points to the bypass cut on the bottom of the face notch. The bypass completely eliminated any hinge wood.



**Figure 3.** The photo shows the victim's position when struck-by the birch.



**Figure 4. The photo shows the weak root system and the associated root wad of the tree which was pulled over onto the victim due to entanglement. From this perspective, the victim would have had been viewed from behind and located approximately 12 feet from the root wad. The arrow in the background indicates his approximate position**



**Figure 5. The photo shows the victim's position when struck-by the birch.**

# Student Report-Back Sheet

List 3-5 things that you identified as contributing to this worker's death.

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Develop 3-5 recommendations to prevent a similar incident.

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