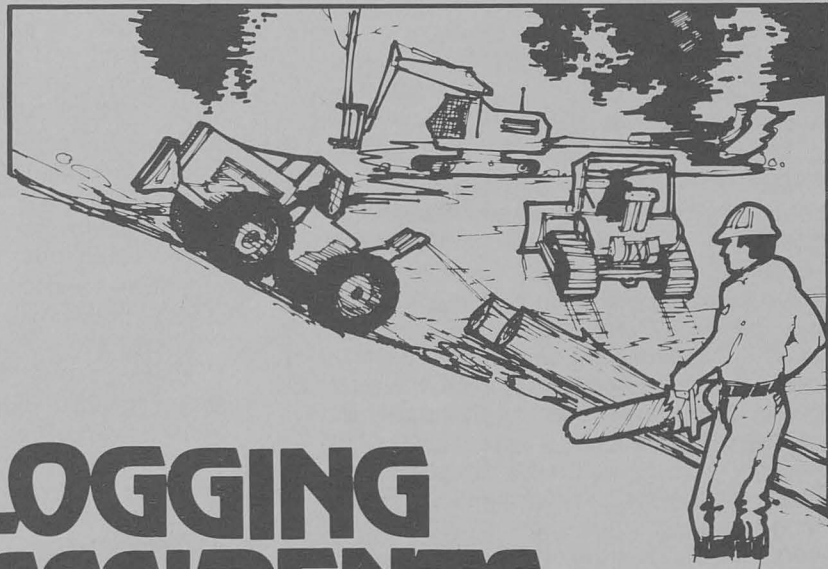
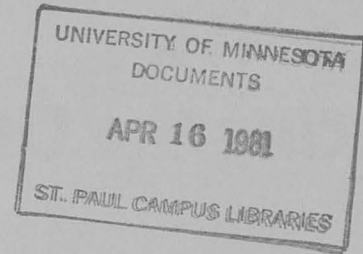


MN 2000 EF-572

Extension Folder 572—1981



LOGGING ACCIDENTS -

Reducing the Odds

Agricultural Extension Service
University of Minnesota

Robert A. Aherin

Lee Schultz

A. Scott Reed

LOGGING ACCIDENTS - Reducing the Odds

Loggers are attracted to their work because of the personal freedoms and way of life. They are able to live and work independently of a schedule and benefit from a willingness to work hard.

But logging as a way of life has more than its share of hazards. Consider these facts:

- Logging is rated as one of the most hazardous industries in Minnesota, based on workers' compensation rates. Only cleaning outsides of buildings and explosives manufacturing have significantly higher rates.
- National statistics indicate that for every 100 employees, 225 workdays will be lost every year due to accidents and injuries.
- The majority of logging accidents occur as a result of being struck by a chainsaw or a falling tree or branch.

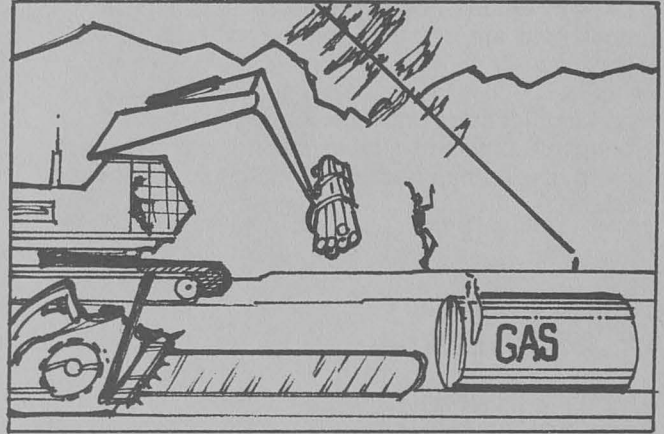
What would a serious logging accident cost you—financially, physically, and emotionally? How would it affect others who depend on you? An accident can cost a logger thousands of dollars in medical expenses, lost income, property damage, lost production, and legal fees. It could cause the loss of your business. In addition, there are factors you cannot estimate in dollars such as pain, suffering, grief, or life-long handicap.

Most loggers today realize they must be good managers to make decent profits. Accident risk is like any other management factor: It should be treated with analysis and planning. Unlike the risks of weather and market fluctuations, accidents are the one logging risk that can be controlled, reduced, or eliminated. Understanding how accidents happen and how to reduce accident risk can result in reduced waste of human resources, less downtime, and higher profits.

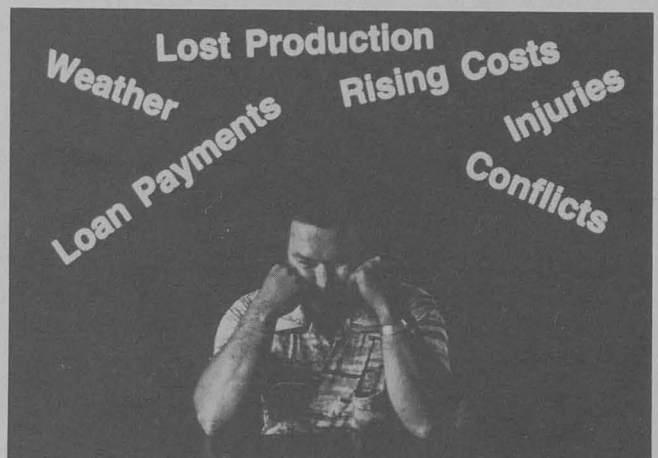
FACTORS UNIQUE TO LOGGING

To help you manage accident risk, keep in mind the following factors which contribute to logging accidents:

1. **Strenuous manual work.** Most logging jobs require that workers perform many strenuous tasks. If you are stressed physically, your response time, your ability to avoid an accident, and other responses are reduced.



2. **Outdoor work.** Nearly all logging activities require working in the cold, rain, snow, and wind. Uncomfortable working conditions result in a high potential for accidents.
3. **Seasonal activities.** Logging production depends on unpredictable variations in markets and seasonal working conditions. The new and untrained workers common on logging jobs may contribute to an accident.
4. **Shifting worksites.** The place of work is constantly changing, keeping you from becoming as familiar with hazards as you would be if you worked in a fixed location.
5. **Pressures for production.** Some activities such as falling and bucking are paid for on a piece rate. Pressures to produce large quantities can cause you to take chances and increase the risk of an accident occurring.
6. **Emotional stress.** Today's logging operator is often under emotional strain due to financial burdens, markets, or family conflicts. If you do not know how to deal with mental stress, it can build to a point where it affects your full concentration. A preoccupied mind can cause a mistake that could cost you a limb or your life.

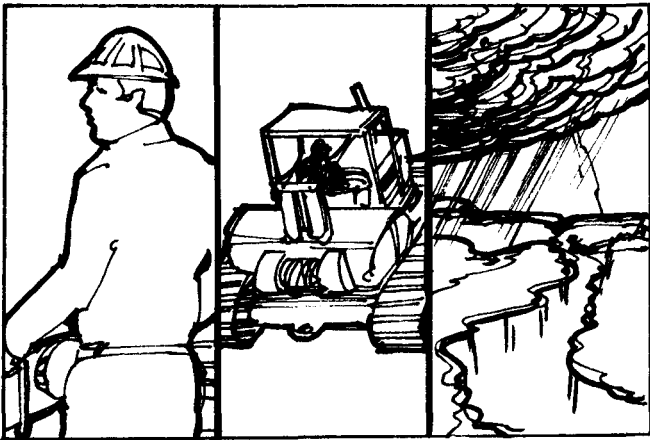


- Lack of emergency services.** Most logging operations are isolated from medical help. When an emergency does strike, it is important that workers are trained to deal with severe injuries and emergencies until additional help can be obtained. Otherwise, the injury or illness can be more severe than necessary and could result in death.

COMPONENTS OF AN ACCIDENT

For any accident to occur, the following three components are necessary:

- Human.** This includes such items as a person's age, physical condition, emotional state, and knowledge of the work being performed.
- Agent.** The second contributing factor includes machinery, power saws, vegetation, and slippery working surfaces. An agent is anything that can inflict an injury or an illness—by striking, cutting, or burning, for example.
- Environment.** This includes factors such as weather and surface conditions, lighting, and the terrain.



Every accident involves the interaction of these three factors—human, agent, and environment. Therefore, these factors must be managed or controlled to reduce risk.

MANAGEMENT PRINCIPLES THAT REDUCE ACCIDENT ODDS

Several safety management principles may be used to reduce accident risks involved with logging. Devote as much time to accident prevention as you do to other factors that affect productivity and profit. Carefully review the following principles to see how they apply to your operation.

- Make accident prevention a personal goal.** Whether you are a logging operator or an employee, make accident prevention a personal goal. Being “safe” means reducing accident risks in whatever you do—one way to help reach the goals you have set for yourself in life.
- Survey hazards.** Know what hazards exist around your logging job. Routinely evaluate equipment, work areas, and the way work is being done. One technique is to have an informal but scheduled safety meeting each Monday morning—allowing the crew to discuss the week's production goals, anticipated problems, and the harvest layout. Note potential hazards that may need to be corrected before beginning any work operation, or make a list of particular hazards in a pocket notebook as you go about your normal, everyday work activities.

In addition, a detailed logging hazard survey which can be used as a checklist for your operation is available from your county extension office (ask for *Logging Hazard Survey*, Extension Folder 573).

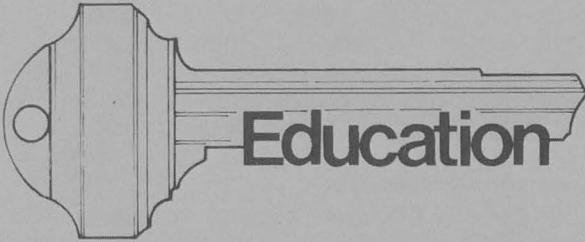
- Maintain equipment.** Keeping your equipment in good working order can do more than extend its life. It can help avoid accidents, too. Be sure that all safety shields and guards are securely in place and equipment is maintained, so that serious breakdowns do not occur during a very busy time and injuries are prevented.
- Know your physical and emotional limitations.** Do not attempt stressful or potentially hazardous work when you are not at your best physically and mentally. Fatigue and a preoccupied mind are the cause of many serious logging accidents.
- Use personal protective equipment.** The effects of minor slips and mistakes can be minimized if you are protected by readily available safety equipment.
- Know safety and health laws.** To avoid legal problems, be aware of local, state, and federal safety and health requirements that may apply to your operation. By understanding your rights and obligations under these laws, many accidents and legal complications can be averted.
- Be prepared for emergencies.** Logging sites are usually located many miles from emergency medical services. Many lives have been lost and injuries made more severe because no one at the site of an accident knew how to deal with emergency situations.

Minutes count when a serious injury occurs. Devastating effects of the trauma that accompanies an injury often can be averted by the quick action of those near the scene. At least one person and preferably members of the entire crew should receive training in first-aid procedures and cardiac pulmonary resuscitation (CPR).

Emergency supplies should be kept handy to the work site, and emergency phone numbers



should be located by the closest telephone. Adequate supplies of emergency equipment should be readily available on the job site. Fire extinguishers should be located near the landing area and on each piece of powered machinery. Consider using an alert system such as an air horn to notify workers that an accident has occurred.



The KEY To SAFETY

8. **Educate everyone involved.** Education is the "key" to preventing most logging accidents. Knowing how to recognize logging hazards, how to correct them, and understanding safe work procedures are essential to reducing the accident risk of logging. Accident prevention education is a continuing process but is particularly important as new techniques, equipment, and untrained workers are brought to your logging operation.
9. **Reward "safe" employees.** Many industries have used incentives successfully to encourage employees to be safety conscious.

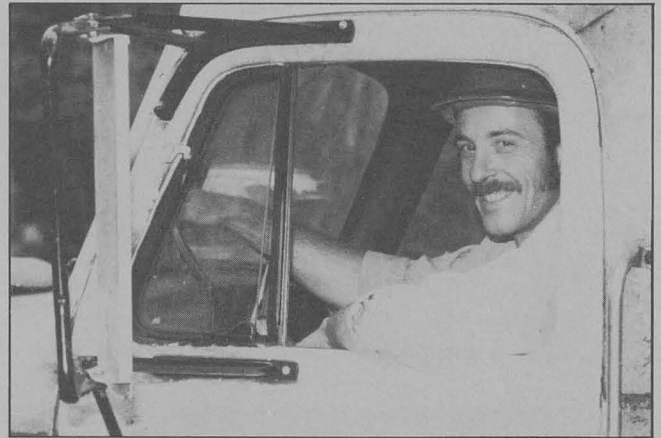
With each change in the logging operation, you should become familiar with the associated hazards and take the necessary steps to train all persons involved. All new or inexperienced workers should receive thorough training of safe work procedures and of how to deal with the logging hazards to which they are exposed.

There are a number of educational resources available. Programs and materials are offered through the Agricultural Extension Service, vocational-technical programs, logging associations, and insurance companies. Safety articles often appear in logging publications. Hazard warnings and safe operating instructions are in machinery operating manuals. Special warning decals are placed on most logging machinery and equipment by machinery manufacturers.

Keeping up to date on the hazards associated with logging is one of the most important weapons against the reduction of accident risk on any logging job.

LOGGING ACCIDENT PREVENTION PAYS

You can have an accident free logging operation if you make an effort to reduce the risk of accidents. By making hazard control as important a priority as other management factors, accidents will go down, profits will go up, and you will be reducing the potential of experiencing the suffering and grief associated with many logging accidents or injuries. In a large sense your life and the lives of your co-workers are in your hands, and only you can manage to do better.



Robert A. Aherin is extension program safety specialist, Lee Schultz is assistant extension safety specialist, and A. Scott Reed is extension forestry specialist.

Editor: Sharon Farsh

Artists: Jan Huijbregtse
Steve Olson

Photographer: Dave Hanson

This material has been funded in whole or in part with Federal funds from the U.S. Department of Labor under grant number DOL/9P305017. Individuals undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment. Therefore, these materials do not necessarily reflect the views or policies of the U.S. Department of Labor, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

Issued in furtherance of cooperative extension work in agriculture and home economics, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Norman A. Brown, Director of Agricultural Extension Service, University of Minnesota, St. Paul, Minnesota 55108. The University of Minnesota, including the Agricultural Extension Service, is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, creed, color, sex, national origin, or handicap.