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ANALYSIS OF LOST TIME ACCIDENTS -1991

(Accident Reporting Scheme Statistics)

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INTRODUCTION

This is the seventh year of data collection by the Accident Reporting Scheme (ARS). Although there were less lost time accidents reported this year there was an increase in the number of minor and near miss accidents. The decrease in lost time accident reports is considered likely to a reduction in reporting rather than a reduction in accidents. Noteable trends in 1991 accident data were the increase in the proportion of lost time accidents occurring on hauler operations and the increase in foot injuries inflicted by the chainsaw.

	1990	*1991*
Fatal Accidents	*2*	*7*
Lost Time Accidents	*241*	*218*
Minor Accidents	*23*	*45*
Near Miss Accidents	*28*	*47*

Table 1 - Accidents recorded by the Scheme for 1991

ANALYSIS OF 1991 LOST TIME ACCIDENTS

Lost Time Per Accident

Of the 218 lost time accidents, the average number of days lost per accident was 15, with the number of days lost ranging from 1 to 133 days. The number of days lost is frequently estimated so caution must be used when interpreting this figure.

The distribution of time lost per accident has changed since last year. For the first time since 1987, less than half of the accidents resulted in between 1 and 5 days off work (42%). Such accidents are unlikely to come to the attention of the Accident Compensation Corporation. A greater number of serious accidents was recorded in 1991 than in other years which can be seen by the large proportion of accidents resulting in 21 or more days of lost time (23%).

Distribution of lost time per accident is shown in Figure 1.

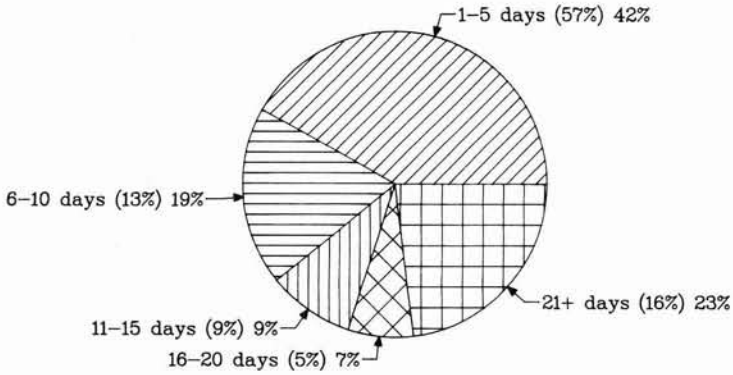

Figure 1 - Distribution of Lost Time per Accident (1990 equivalent in brackets)

A total of 2752 days were lost, which is over 11 man years. The equivalent figure in 1990 was 2508 days or 10.7 man years.

Time of Day of Lost Time Accidents

The trend for the first third of the day to have more than one-third of the accidents continues. A similar proportion of lost time accidents occured in the periods from 10:01am to 1:00pm (29%) and 1:01pm to 4:00pm (27%). There was a slight increase in accidents in the last "run" of the day over 1990. Only 3% of reports did not have the time the accident occurred.

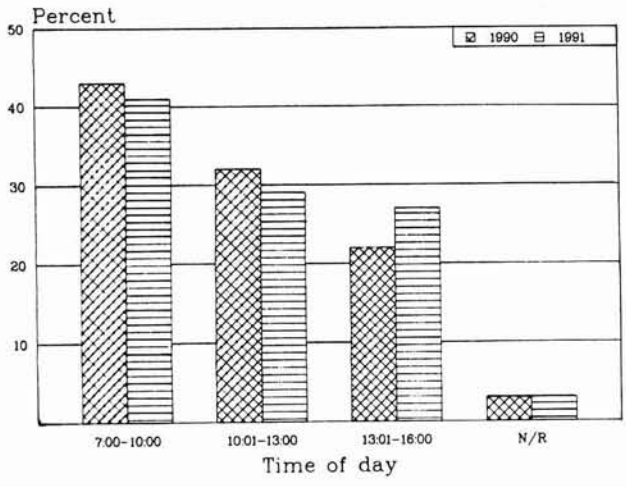

Figure 2 - Lost Time Accidents by Time of Day

Type of Operation

Clearfell accidents still make up the greatest proportion of accidents. A slightly greater proportion of lost time accidents occurred in thinning in 1991 compared with the previous three years.

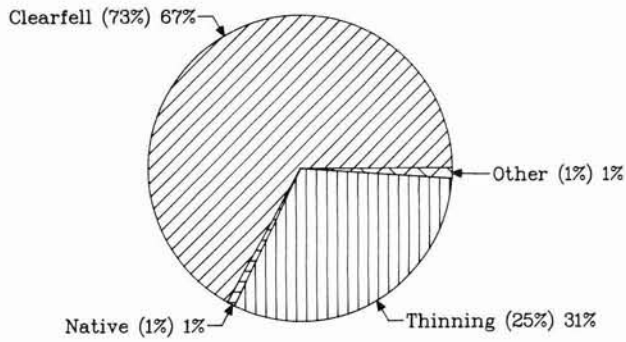

Figure 3 - Lost Time Accidents by Type of Operation (1990 equivalent in brackets)

The majority of lost time accidents, 60% (66%) occurred in skidder operations which is similar to other years.

More disturbing is the rise in the proportion of accidents occurring in hauler operations, from 10% in 1987 to 21% of all lost time accidents in 1991. This is considered to be due to the increased number of new hauler crews starting up in recent years. Accidents in tractor operations, 16% (15%) are similar to previous years.

The average number of lost days per accident in clearfell increased by 3 days while in thinning it increased by 2 days (Table 2). The average number of days lost for all lost time accidents increased to 15 days.

Table 2 - Accident Severity - Clearfelling versus Thinning (Days Lost)*

		Severity (days lost per accident)	
Type of Operation	*Number*	*1990*	*1991*
Clearfell	*121*	*14*	*17*
Thinning	*57*	*10*	*12*
All Lost Time Accidents	*181*	*13*	*15*

**The number of observations does not correspond with the data in Table 1 due to missing information about the amount of time lost. This follows in all such analyses.*

Lost Time Accidents and Logging Task

Trimming and felling continued to be the most dangerous jobs in logging accounting for 29% (25%) and 26% (28%) of lost time accidents respectively.

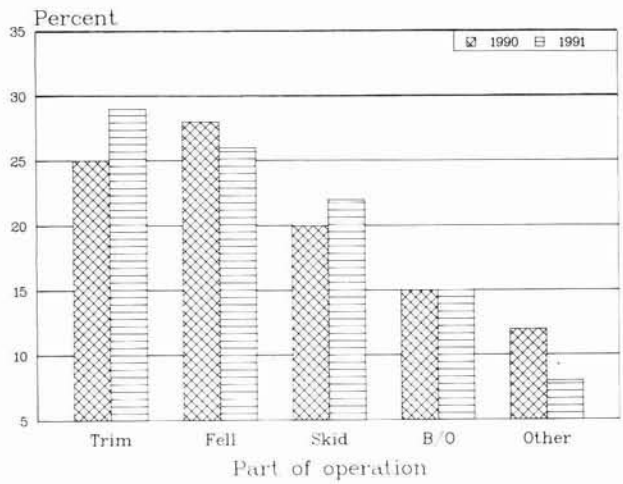

Figure 4 - Lost Time Accidents by Part of Operation

There was little change in the proportion of accidents occurring on skid sites, 22% (20%) and during breaking out, 15% (15%). Few lost time accidents came under the classification of "other" and were mainly vehicle related such as "caught wrist under tanker draw bar" and "scalded when took radiator cap off".

Lost Time Accidents and the Location of Injury

The feet and lower legs were the most frequently injured parts of the body accounting for 41% of all lost time injuries. Injuries to hands accounted for only 10% of lost time accidents in 1991 compared with 16% in 1990. This is the lowest proportion of hand injuries in the seven years of data collection by the Scheme (Figure 5).

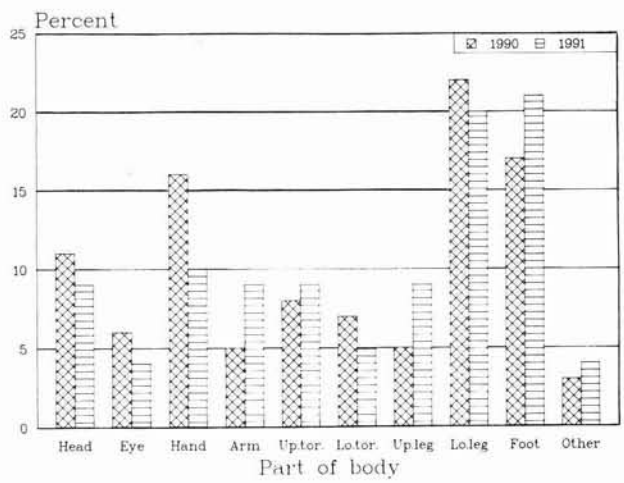

Figure 5 - Lost Time Accident by Part of Body

Table 3 - Accidents to the Legs, Feet and Hands

Part of Body	Number	Cause of Injury			
		Chainsaw		Other	
		No.	%	No.	%
Lower Leg	44	12	27	32	73
Hands	22	15	68	7	32
Feet	45	28	62	17	38
Upper Leg	19	11	58	8	42

There were a greater proportion of injuries to the arms 9% (5%) and upper legs 9% (5%) in 1991 compared with 1990. Of concern is the rise in the proportion of upper leg injuries inflicted by the chainsaw (Table 3). In 1989, only 14% of upper leg injuries were chainsaw related, rising to 46% in 1990 and 58% in 1991. This increase could be due to the use of old protective legwear which has lost its effectiveness over the years and needs to be replaced. There were eight reported cases where protective legwear had prevented serious laceration injuries from the chainsaw.

Most injuries to the hands (15 out of 22) were inflicted by the chainsaw (Table 3). Of these, four were cuts from a stationary chain, but were serious enough to result in a total of 10 days off work. In six accidents reported as being due to kickback, all resulted in injury to the left hand suggesting the mitt was not being used.

The very high number of foot injuries is of great concern. There has been a dramatic increase in the proportion of foot injuries inflicted by the chainsaw since last year (36% in 1990 versus 60% in 1991) although the total number of foot injuries has changed little. A total of 348 days were lost in 1991 to chainsaw inflicted foot injuries. The left foot was injured in 90% of these accidents. Rubber gumboot-type chainsaw cut resistant boots are available and LIRO is promoting their use because of the large number of injuries they could potentially prevent.

CONCLUSION

The number of lost time accidents reported in 1991 (218) is down on 1990 (241) but more minor accidents and near miss incidents have been reported. Minor and near miss reports are very useful because they show that safety equipment is working to prevent or lessen the severity of injury.

The hands, lower legs and feet are still the most frequently injured parts of the body. Given the alarming number of chainsaw cuts to the feet, loggers are encouraged, where practicable, to wear the protective rubber boots.

The industry must continue to send in accident and near miss reports so the Scheme can continue to function and guide research and training efforts in logging safety.

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