

LOST TIME ACCIDENTS IN FORESTRY - 1993

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INTRODUCTION

This report summarises the forestry accident information for 1993 and is the fourth year of data collection. Logging accidents for 1993 are summarised elsewhere (Parker, 1994). Forestry includes the following operations: nursery work, establishment, thinning to waste, pruning and forest maintenance.

The New Zealand Forest Owners' Association has accepted the responsibility for reporting forestry (and logging) accidents and this has contributed to the greater level of reporting in 1993. Fifty-six lost time accidents were reported in 1993 (January to December). This is twice the number reported for 1992 (Table 1).

Table 1 - Accidents Recorded by the Scheme

Accident Type	1992	1993
Fatal	0	0
Lost Time	28	56
Minor	2	8
Near Miss	2	2

It is believed, however, that this number of reported accidents still represents a significant under-reporting of lost time accidents in forestry. Gibson (in prep) found that 16% of 187 forestry workers

had suffered a lost time accident during the year preceding July, 1993. This was the same percentage as was found for logging workers in this study. Byers and Adams (in prep) found that 23% of a 100% sample of forestry workers interviewed in early 1993 in Otago/Southland had suffered a lost time accident during the last five year.

ACKNOWLEDGMENTS

LIRO acknowledges the co-operation of the workers, contractors and companies that supplied the data used for these analyses.

ANALYSIS

Time of Accident Occurrence

The distribution of accidents throughout the year was not evenly spread across the months (Figure 1).

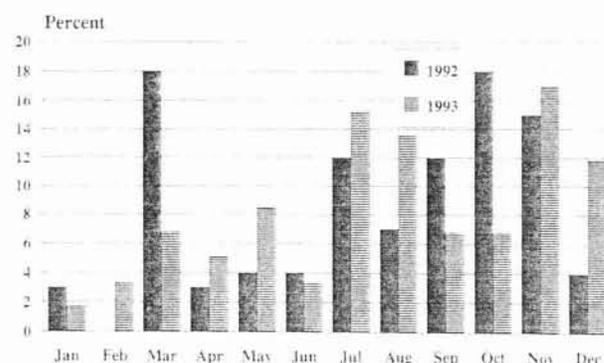


Figure 1 - Month of Accident

There was a peak of accidents in winter, July and August (29%) and a second peak during spring, November (17%). This distribution is consistent with the peak of accidents in July and October of 1992. However, with only 28 lost time accidents reported in 1992 comparisons with 1993 are tenuous. As the forestry reporting scheme develops and reporting improves such comparisons will become more meaningful.

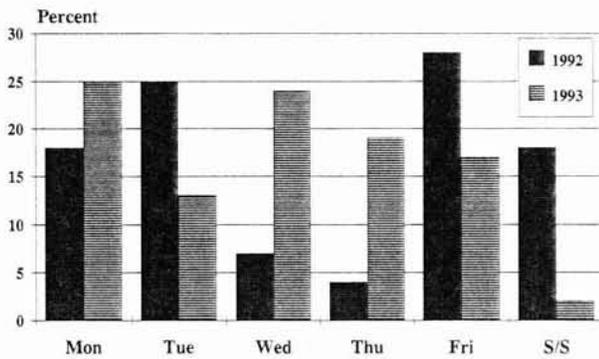


Figure 2 - Day of Week of Accident

The greatest proportion of accidents occurred on Mondays and Wednesdays and the least occurred on Tuesdays. This is in contrast to 1992 when over 50% of all accidents occurred on Tuesdays or Fridays. These results differ from lost time injuries for logging where most accidents occur early in the week.

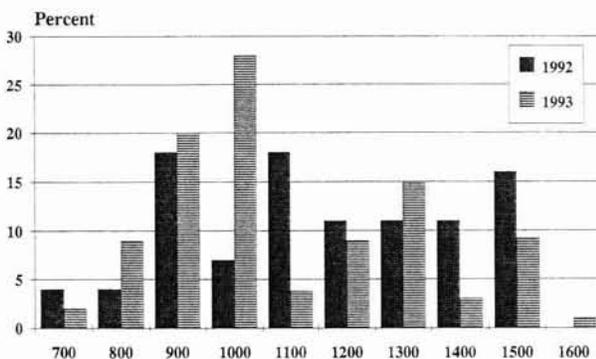


Figure 3 - Time of Day of Accident

Most (49%) accidents occurred between 9am and 11am with another smaller peak (15%) between 1pm and 2pm. In the

middle part of the day, 11am to 1pm there were only seven (13%) accidents. One reason for this reduction in injury may be that many crews would have stopped for a meal break so there would be less people engaged in potentially hazardous activities.

The large number of injuries between 10am and 11am in 1993 was also apparent in the 1992 data. It is unknown why this occurred.

Type of Operation

Pruning accounted for the greatest proportion (71%) of forestry lost time accidents. This compares with 1992 where pruning accounted for only 41% of lost time accidents. Thinning to waste accounted for only 12% compared with 31% of lost time accidents in 1992. Other activities in which people were injured were planting (6%), releasing (4%) and miscellaneous activities (such as one twisted ankle during a burnoff which resulted in five days off work and one thistle injury while spraying, resulting in one days lost time).

The most common cause of injury while pruning was falling off the ladder (36%). Thinning to waste injuries (total of six) were either straining the lower back (three), or lacerations inflicted by the chainsaw (three).

Part of Body Injured and Type of Injury

The hands were the most frequently injured part of the body accounting for 25% of all lost time injuries. Most injuries (nine of 14) were to the left hand and all injuries except for one were lacerations. The one hand fracture was a finger caught in the pruner blade resulting in 10 days lost time. In contrast the right hand had one bruise (slip off ladder), a dislocation (branch broke using jacksaw),

one serious infection as a result of blackberry prickles (three days off work) and two lacerations.

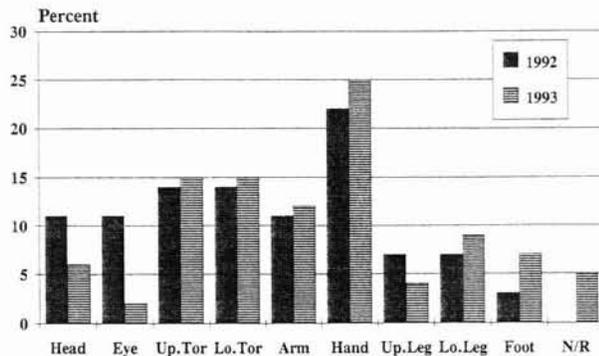


Figure 4 - Part of the Body Injured

The arms and shoulders were the second most frequently injured part of the body with 11 injuries (19%). Injuries to the arms and shoulders included five strains ("over-reach for branch", "bursitis while sawing", "struck by third lift branch", "fell off ladder" and "pruning large branch"). Other injuries included a dislocated shoulder and a chainsaw laceration while thinning to waste. Arm and shoulder injuries resulted in a total of 36 days lost time.

The lower torso accounted for 14 % of all lost time injuries and resulted in a total of 44 days lost time. Most injuries (five out of eight) were strains to the back. Other injuries were a broken tail bone when the person hit a stump while descending a ladder (20 days lost), multiple injuries when grip gave way while pruning (two days lost) and bruising after falling down a bank (five days lost).

Lower leg injuries accounted for 9% of lost time injuries and consisted of four sprains and one fracture ("bolt on pruners broke, fell from top of ladder") resulting in a total of 92 days lost.

Other parts of the body injured were the upper leg (5%), foot (7%), eye (2%) and ear (2%).

Experience of Accident Victims

Pruning and thinnings workers had similar levels of experience in their particular jobs when injured (2.4 and 2.5 years respectively). This has changed little since last year (2.6 and 3.0 years for pruning and thinning respectively). The least experienced pruning worker to be injured had been working only a few days ("struck in face with pruned end of branch") and the most experienced had been pruning for more than eight years ("strained back, pruning large branch").

Lost Time Per Accident

The average time lost per accident was 5.8 days which is the same as for the combined accident data of 1991 and 1992. The number of days lost ranged from one to 40 days. The two most serious injuries (40 days lost) were the result of falling from ladders while pruning. These two injuries elevated the average lost time for pruning to 6.8 days. Thinning injuries (five in total) tended to be less serious with an average of 3.4 days lost. A total of 322 days were lost, which is almost 1.4 man years.

DISCUSSION AND CONCLUSIONS

The level of reporting has increased considerably from the previous two years and the number of accidents reported is expected to increase with the greater awareness of workers, contractors and companies of their obligation under the Health and Safety in Employment Act to report accidents. However, the number of minor accidents and near miss incidents are still severely under-reported. These reports are needed to identify trends in accident type and problems with equipment, for example, pruners breaking and causing injury or near miss incidents.

Most injuries resulted in one to five days off work. These are not recorded by the Accident Rehabilitation and Compensation Insurance Corporation (ACC) Integrated Information System database; it records information on injuries resulting in more than five days off work. The Forestry ARS is the only nationwide scheme which collects and analyses forestry lost time accidents, minor accidents and near-miss incidents. Support of the scheme is essential so that trends in injury type can be recognised and measures taken to improve the safety of the forestry workforce through research, training and development of techniques and equipment.

REFERENCE

Byers, J.; Adams, D. (In prep) : "Otago/Southland Forestry Workforce - 5 Years Later, LIRO Report.

Gibson, R. (In prep) : " Attitudes Towards Safety in the New Zealand Forest Industry", LIRO Project Report.

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