

FORESTRY ACCIDENTS IN NEW ZEALAND

Common injuries sustained as selected by -

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"In the 1980 publication of "The Journal of Trauma", U.S.A., Mr MacFarlane presented his paper on Forestry Injuries and Fatalities in New Zealand. An extract from the article quotes - "Since early 1976 when we started publicising the effect of chainsaws on patients who were working in the bush and who were injured by these machines, there has been a very significant drop in the rate of accidents".

Although accident incidents in the use of chainsaws have dropped considerably to date, some workers are still being inflicted with serious injuries by the instrument. Often it has been the falling tree that has caught the victim resulting in crush injuries to any part of the body. Like the chainsaw, such crush injuries often destroy tissue making surgical repair to some extent, very difficult, and at times impossible.

No matter how any injury occurs it is usually through loss of blood, and lack of oxygen to the tissues that results in either the destruction of a limb or the death of a victim. If bleeding is controlled immediately, the blood pressure is retained in the body and the condition of shock is reduced in that the blood/oxygen supply to the brain is not lowered to a dangerous level. Thus on admission to hospital, the victim's general condition is more stable and his body in better condition to cope with immediate surgery should this be necessary.

In one incident last year a timber worker employed by a contractor in the Bay of Plenty cut his lower leg severely whilst using a chainsaw. Instantly, he walked some distance to a vehicle in order to summon assistance with blood pouring from the injury. He should have immediately sat down, raised the limb, and applied pressure on the wound using either his bare hand or part of his clothing to arrest the bleeding. Neglecting to do this resulted in extra days hospitalisation to recover from shock through loss of blood. Another injury of this nature will be noted in the final slide of "Forestry Accidents in New Zealand" programme but in this case the victim died because bleeding had not been controlled.

The logging industry continues to expand, and accidents will continue to happen, but lives can be saved by extending the first

aid training programme to as many employees as possible. The existing programme which has recently been updated, has been geared to meet the needs of all timber workers with an emphasis on 'safety'. Chainsaw operators in particular are being urged to carry the No.15 Wound Dressing in the canvas belt pouches which are available, so that even if the person is on their own, they have a valuable emergency dressing to control any bleeding.

Lives have been lost, where trees have fallen onto victims causing pressure on the body in such a way that lung capacity is reduced with resultant lack of oxygen. In one such case some years ago, I attended an incident where the victim's two workmates had both driven from the scene to summon help rather than remove the obstruction from the victim and administer emergency resuscitation or, if required, CardioPulmonary Resuscitation. The Post-Mortem on this particular person failed to find a broken bone in his body and the Coroner found that the cause of death was asphyxia.

All workers, regardless of the type of industry they are engaged in, should gain first aid knowledge to enable them to carry out the simple A.B.C. (Airway. Breathing. Circulation and Control of Bleeding) to save a life and quickly before any further assistance is obtained. Also, training in this area is valuable whilst waiting for such assistance (in some cases up to one hour) for the first aider will be able to make the casualty comfortable and be able to record the person's general condition. This report will be valuable to the Medical Officer who receives the victim in their care.

Finally, it is gratifying that the N.Z. Forest Service, sections of N.Z. Forest Products in the Bay of Plenty, Tasman Pulp and Paper, Kawerau, and the Tasman Forestry Division, have stepped up the First Aid Training through the service of the Order of St. John. Two such Training Officers are now fully employed to carry out the programme to this industry in the Bay of Plenty - Coromandel region, with other Officers serving other areas of the country.

The course most accepted is that of the Standard First Aid conducted over three six hourly sessions in three days with a certificate issued as recognised under the First Aid (Factories) Regulations 1966.

First Aid for Safety Conscious Persons.

APPENDIX

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11 May 1984

Mr John Bromell,
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TAURANGA

Dear Sir,

Further to your recent request regarding accident statistics in the logging and forestry field over the last fifteen years or so. Unfortunately we do not have a complete record within this office of all accidents. However, listed below are the figures with some exceptions from 1969.

Date	Native	Exotic	Chainsaw	Total Accidents
1969	18	100	118	967
1970	28	90	118	1003
1972	31	125	156	1204
1973	28	146	174	1104
1975	26	137	163	N/A
1976	19	108	127	"
1977	14	136	150	"
1979	10	111	121	"
1980	27	114	141	"
1981	21	141	163	"
1982	18	152	170	"
1983	20	150	170	"

As you realise bare statistics are not sufficient without other factors taken into account. For instance chainsaws have been widely used in logging for thirty-five years now, but only extensively in forestry for the past fifteen years. In the early days of logging often the saws were operated by two men. They had slower revs, more actual power, and were a much less versatile type of saw. Not only that, the workers had more respect for the machines themselves and there was not the same demand for speed cutting. In those days also axes were still used for trimming logs to a large extent.

Around about 1965/67 there was a marked increase in chainsaw accidents, mainly because of the number of saws being used. It was about this time that the Forest Service replaced axes and slashers used for scrub cutting, with chainsaws.

It is my opinion that during this period the accident rate would have been much higher if it were not for the fact that the use of chainsaw safety mitts was being insisted upon. Following this the chainsaw brake came into being and from 1976 to 1980 the accident rate was more or less held at a steady level despite the still increasing number of saws being used.

Since 1980 there appears to have been an increase. However also since 1980 there have not only been more saws used, but many of the users are completely new type of operators, i.e. P.E.P. and other subsidised employment schemes amounting to some two-hundred new chainsaw operators in the Hamilton District alone. These workers receive minimum training and instruction as the employers would not have facilities available and often worked in conditions far worse than found in most bush undertakings.

The proportionate number of accidents in these types of undertakings is actually lower now than in the usual logging and forestry undertaking, mainly I consider because safety is being constantly hammered into the workers and also they are being outfitted in suitable protective clothing, i.e. helmets fitted with both visors and earmuffs. All chainsaws whether they have been fitted with brakes or hand guards are also fitted with safety mitts and the workers are fitted with full length leg protection.

It is not yet the Department's policy to enforce the professional bushworker into the wearing of full length leg protection normally. However, on these P.E.P. situations the Department is footing the bill, therefore demands that they be worn. We have had many reports of workers escaping injury although their trousers or chaps have been caught with the revolving saw chain.

Another deciding factor has been that this Department has insisted on these workers being trained in first aid and to this effect organised fast track first aid courses have been organised for many of the workers. Their awareness seems to have had the desired effect of not only making them capable of dealing more efficiently with the result of an accident, but also to be more safety conscious.

Although chainsaw accidents appear to be more frequent and sometimes permanent serious injury results, there is still cause for great concern in the felling area in the bush. Although there are less accidents in this area, the severity rate is far higher and more fatalities occur within range of the standing tree than anywhere else in the bush. Carelessness in scarfing, not bringing a tree down immediately after it has been cut up, and hung, and working around the area, attempts to drive trees, have all been causes of these serious accidents.

Falling tree limbs, cones, etc., accounted for one-hundred-and-three accidents in 1983. Many of these were serious.

Hand tools still account for large numbers of accidents, there were one-hundred-and-eleven in 1983.

There were fifty-seven slasher and forty-two pruning tool accidents in the same year.

Logs accounted for thirty-two accidents, eleven during unloading and loading processes, eight rolling when cross-cutting, most of these extremely serious.

Falls accounted for a total of two-hundred-and-forty-six.

In this year the total accidents reported were one-thousand-and-fifty-one from a total workforce of eleven-thousand-two-hundred-and-forty-one.

Many accidents are not reported. We are still finding that the New Zealand Forest Service itself fails to report accidents to the Labour Department.

Since 1975 the Department has treated chainsaw accidents, breaking down the categories of types of accidents as follows :

Date	Kick Back	Falls onto operator saws	Total of all chainsaw accidents
1975	84	56	163
1976	70	50	127
1977	82	31	150
1979	88	24	127
1980	84	39	144
1981	83	47	163
1982	97	41	170
1983	73	60	170

As you can see from this, kick backs are the main cause of accidents and they also seem to produce the most serious results.

From the other category, falls onto operator saws have been investigated and it appears possible that it was not just a true fall, but the fall was instigated by a kick back. Therefore, you can see the need for the use of safety mitts and the wearing of protective clothing covering the lower part of the body, which is the region most affected when it comes to chainsaw accidents.

I hope this letter and some of the figures and facts reported are of assistance to you.

Yours faithfully,

I.M. Taylor,
for District Superintendent