

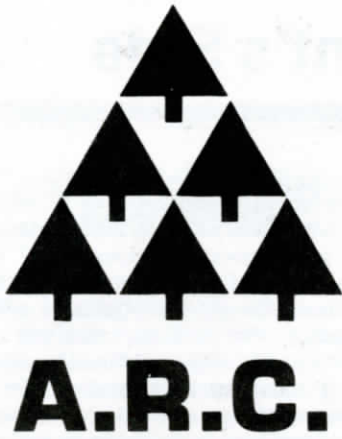
A.R.C.Q. FALL/WINTER 1984 QUARTERLY

Associated Reforestation Contractors, Inc.

REFORESTING MT. ST. HELENS



\$3.00



ARC is a non-profit association of reforestation contractors. Since 1974, ARC has served as an effective voice on a wide range of pertinent issues. Members of ARC are concerned about the rapid increases in industrial regulation, workers compensation insurance, safety, regional and seasonal volumes of reforestation activity, as well as other state and national issues of importance to our industry. This magazine is published quarterly to provide our readers with a source of current information about the business of reforestation.

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Editors: Jim Carbone, John Foster, Steve Winston

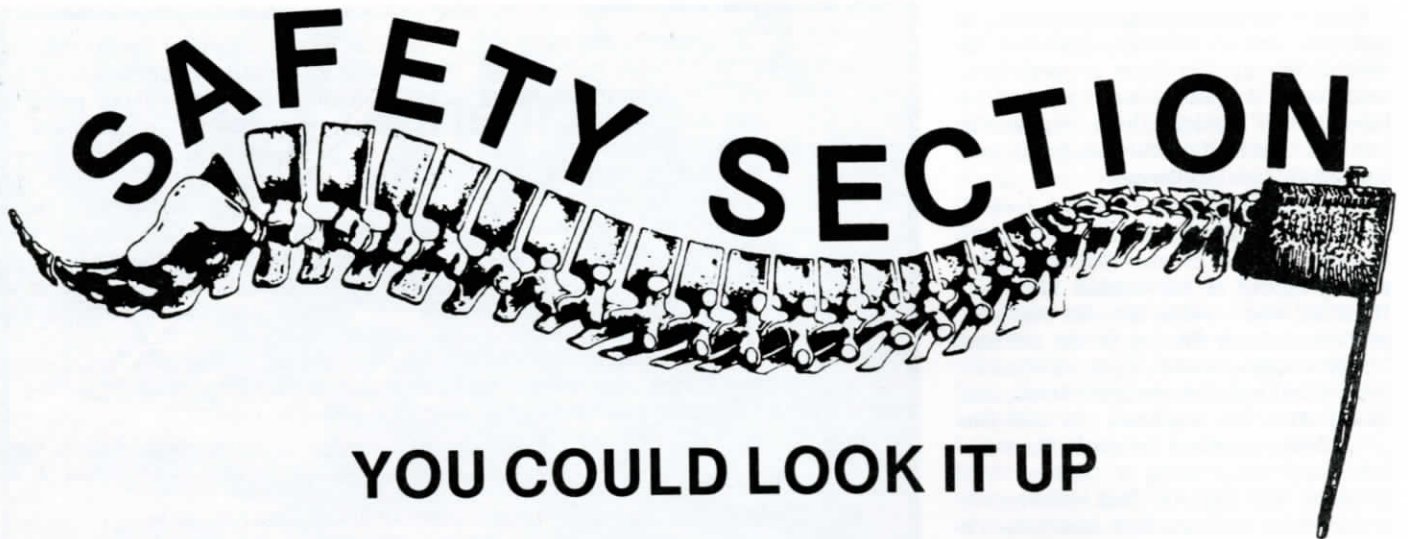
Cover: Mt. St. Helens — May 18, 1980
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SAFETY SECTION



YOU COULD LOOK IT UP

By Bob Zybach

New Study and Statistics Examine Issue of Employee Health and Safety Hazards Associated With Site Preparation, Conifer Release in Pacific Northwest.

Over the past few years I have had the pleasure of working with Bruce Fraser on a variety of projects involving the use of herbicides and/or chain saws during the course of reforestation projects. Some of these projects culminated in Bruce's two part series that was printed in this magazine earlier this year. This article is meant to supplement and update Mr. Fraser's work.

The first article examined the question of whether modern herbicide use constituted a serious potential health problem for those of us most consistently and most heavily exposed to them in the commercial forest environment; regeneration foresters, service contractors, and in particular, the employees of both. As an editor of this Quarterly at that time, I had several occasions to discuss with Bruce the apparent lack of meaningful information available concerning accidents and illnesses in the reforestation industry. The primary conclusion that Bruce drew, that chain saw use posed a far greater hazard to the worker than did herbicide use, came largely from his own experience, conversations with contractors, and an apparent lack of herbicide-related compensation insurance claims on file. There appeared to be no literature or reliable data on the topic available.

In the second article Mr. Fraser examined the potential for psychosomatic injuries and criminal violence resulting from the anti-herbicide movement's emotional claims

being commercially publicized to an apparently sympathetic audience. Particular attention was given the general public's documented phobia regarding the use of helicopters in the application of herbicides. He also briefly examined the oft-repeated claim that a ban on forest-related use of herbicides would result in additional employment for that portion of the reforestation industry engaged in supplying labor-related services.

Last July Jim Kadera, a forestry writer for the Portland, Oregon "Oregonian" newspaper (the state's largest circulation daily), wrote a perceptive article concerning the federal government's approach to vegetation control following recent court decisions to effectively ban the use of herbicides on federal lands (over 1/2 of Oregon) during all phases of reforestation. Mr. Kadera is well known throughout the Pacific Northwest for the quality of his reporting on issues of importance to the fishing and forestry industries, so his article, "Spray injunction creates costly jobs" was of especial interest to me. Some quotes attributed to Dr. Michael Newton of Oregon State University contained in the article were particularly interesting in that they, a) corroborated the conclusions that Bruce Fraser and I had been coming to and, b) they were contradicted in the same article by BLM's Edward Ciliberti and USFS's Randall Perkins. Some of Dr. Newton's concerns were amply illustrated by a photo accompanying the article which featured a

teen-ager on Forest Service property operating a chain saw without gloves, hard hat, chaps, or, any other apparent safety equipment.

Mike Newton is that rarity among research foresters; the man actually practices what he preaches (and upon his own timberlands at that). His wife Jane has been active in her own right in attempting to throw light upon many of the fraudulent and misleading claims being promoted through the popular media by self-proclaimed "environmentalists" during the past decade. Dr. Newton is best known for his work with forest herbicides and is internationally recognized as one of the foremost experts on the topic.

As a neighboring tree farmer and fellow member of the Oregon Small Woodlands Association, I have felt fortunate in having occasional access to Dr. Newton's expansive knowledge on the subject of herbicides during the course of local tours and meetings. Upon approaching him concerning the accuracy of the quotes attributed to him by Mr. Kadera I was pleasantly surprised to find that he was in the process of revising and updating a 1981 work completed in collaboration with Frank Dost (a well-known and well-respected Doctor of Toxicology at the same University) for the State of Washington concerning the environmental effects of vegetation management practices on State forest lands. Of particular concern to Dr. Newton was the same problem encountered by Bruce and I; the apparent

lack of detailed information available concerning potential health hazards associated with vegetation management techniques using methods other than aerial applications of herbicides.

After consulting with Jim Stauffer, ARC President, and Linda Carbone, ARC Administrator, it was decided to give what information was currently available in the Association files regarding ARC-EBI Group Compensation Plan accident figures to Dr. Newton in an effort to aid his study. The potential use for information of this sort as an aid to loss control is readily apparent, and it was felt that a report that was as accurate as possible might ultimately reduce compensation insurance costs by correctly identifying potentially hazardous methods of vegetation control, an increasingly important aspect of reforestation contracting. Additionally, it was decided to attempt to obtain any specific information desired by Dr. Newton, if possible, through that portion of the ARC-EBI contractual agreement dealing with the availability of computerized accident data for loss control purposes.

Unfortunately, EBI was either unable or unwilling to release the information

requested despite several attempts on the parts of Linda Carbone, myself, and Dave O'Donnell, the Group Managing Agent at the time. Subsequently, Sharon Kelly (the present ARC agent) was able to obtain the services of her son, Zane Kelly, an employee of the Accident Prevention Division of the State of Oregon Workers' Compensation Department, in obtaining the statistics desired by Dr. Newton.

By the time that Zane could obtain 2 comprehensive summaries of the statistics concerning the 1689 lost work time accidents possibly attributable to the reforestation industry in Oregon occurring between January 1, 1980 and June 30, 1984, the deadline for Newton and Dost's report had arrived. Their September 24, 1984 Report **Biological and Physical Effects of FOREST VEGETATION MANAGEMENT** was submitted 3 years to the day after their earlier draft **Environmental Effects of Vegetation Management Practices on DNR Forest Lands**. It is currently being prepared in book form and should prove to be the most authoritative text available on the topic when it reaches print. The methodology developed to analyze potential health problems due to

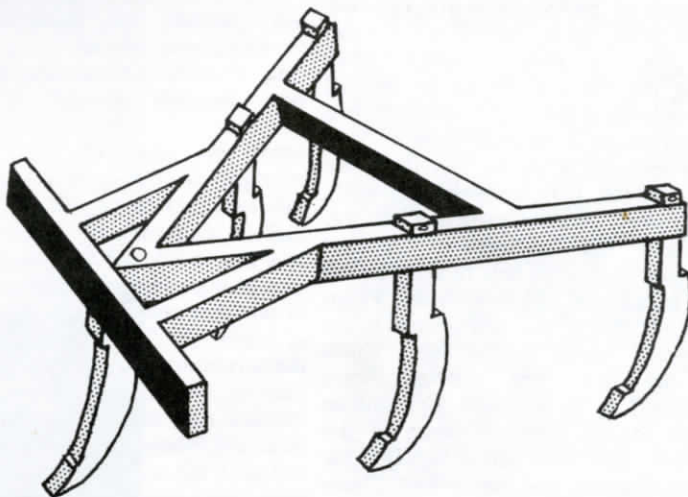
vegetation management practices is such that alternative information would be difficult to develop without using a similar format. And, although existing data is acknowledged as being very general and incomplete so far as vegetation control methods (other than the aerial application of herbicides) are concerned, it is seemingly unlikely that conclusions other than those currently held by Dr. Dost and Dr. Newton will be reached.

Of the nearly 400 pages of the report, only about 50 pages are devoted to "Non-Chemical Control Methods", with a large portion of that section concerned with the toxins associated with slash burns. The report effectively demonstrates the reasoning developed to arrive at the stated conclusions and supports that reasoning with as much documentation as currently exists. For biological control of unwanted brush species the obvious answer is to establish conifers as quickly as possible. To reduce the toxins associated with slash burning the not-so-obvious answer is to first spray the vegetation (fuels) with appropriate herbicides. The resulting dessication results in higher combustion temperatures which produce fewer toxins

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A smoke-cloud from a Georgia-Pacific broadcast burn looms over the rural community of Logsdan, Oregon.

largely due to greater logging slash accumulations and cooperative fire suppression measures. The past 30 years has seen the least amount of forest smoke affecting local populations in Oregon's history, mostly due to better tree utilization and regeneration management procedures.)

The methodology used by Newton and Dost considers two basic aspects; 1) the likelihood of human health problems associated with the various methods of vegetation control, and 2) the effects on site productivity and non-targeted plants and animals. The summary of conclusions regarding their report is very interesting; "Keeping labor-intensive practices to an absolute minimum", is the first conclusion listed, and perhaps the most controversial so far as our industry is concerned. The book generated by this report should be read and referred to by all serious contractors and foresters dealing with site preparation and conifer release.

Although Mr. Kelly's statistics couldn't be gathered in time for the report, they will probably be incorporated into the

with greater convection, thereby dispersing the lesser amount of poisons over a greater area. In numbers that would work out to something like this: 10 to 200 tons of material is ignited during a broadcast burn. About 25% to 50% of this fuel actually burns. About 1 or 2 pounds of herbicide is applied several weeks before the burn, about 1/2 of which naturally breaks down. Upon combustion the herbicide creates toxins very similar to those created by the slash. For each ton of slash (or herbicide) burned about 14 pounds of particulates are created. Due to drier fuels, initial combustion takes place at greater temperatures causing the particulates to be ejected higher into the atmosphere, resulting in a lesser exposure to the population.

(The problem of smoke toxicity is not new to Oregon. It is, however, currently at the lowest level in recorded history, principally due to modern burning techniques that often rely heavily on the use of herbicides and helicopters. From the time of the earliest settlements in the Willamette Valley in the early 1800's until the first fire controls were established 70 or 80 years ago, smoke was an annual problem West of the Cascades and was often blamed for causing illnesses and discomfort. There are several recorded instances during this era in which the sun could not shine through the smoke and lights were required to eat noon-day meals during portions of the August-October smoke season! Some years the smoke would last for several weeks at a time. Since the early 1900's until about 1950 smoke was a sporadic problem, although often more severe than in the previous century,



A crew of Phoenix Reforestation workers prepares to re-fuel a drip torch for a slash burn in progress.

book. This information will undoubtedly support, rather than contradict, the report's conclusions. The statistics are limited due to several factors, not the least of which is their very general nature. For instance, although we can determine whether an injury to an individual was caused by a "fall down on" the ground as opposed to a "fall down to" the ground, (whatever that difference might be), we still cannot determine what the person was doing at the time of the fall or what caused him to fall! Likewise, if a man were cut by a chain saw, we can't tell if he was cutting firewood, mechanically releasing conifers, snag falling, or pre-commercial thinning. This lack of specific job and accident descriptions is very serious so far as loss control is concerned. If we are going to be able to use statistics at all for loss control, then the statistics are going to have to be more precise. Otherwise, they are nearly useless for this purpose.

Of the 1689 accidents possibly attributed to reforestation work (many of the accidents are nursery related, Christmas tree related, farm related; others are missing, or misclassified), I was able to determine that 626 were possibly related to chain saw use, with about 2/3 of this number probably chain saw related. In other words, about 25% of all reforestation accidents seem to be chain saw related. How many of these are related to vegetation control is currently impossible to determine, but my guess is that most of them are. The statistics list 0% of the injured as

reforestation workers, less than 75% as "miscellaneous laborers", whatever that means. Another serious problem with the statistics is that they don't list the owner of the land upon which the accident occurred. Thus, unless there is a change in data gathering procedures, it will be very difficult to determine the exact effect the federal government's ban on herbicides will have upon the health of reforestation workers. Remember, these are lost work time statistics and, as such, fall squarely between all injuries (including the most incidental) and fatalities.

So far as herbicides related injuries are concerned, there appeared to be two cases (less than 1/10 of 1%), and one case of smoke inhalation. By comparison, there were 17 cases of natural plant poisoning (probably poison oak)! It would appear that the best way available to reduce poisoning in the woods is to treat poisonous plants with effective herbicides prior to physically entering infested areas.

The 7182 logging injury statistics available for the same 1980-94 time period generally support the same findings with the same limitations of interpretation. All of the reports are publicly available through the APD.

A significant help in analyzing these statistics would be provided by a) listing the landowner, b) listing a standardized job description, c) listing a standardized accident description, d) listing lost work day totals, and 3) standardizing accident "sources". Until such an effort is made

to isolate accident causes, hazardous jobs, and work locations, the statistics being gathered and analyzed by APD will serve only the most general of purposes and can only prove to be ineffective for specific loss control needs. In the meantime we are left with the probable assumption that alternative methods of brush control (other than aerial applications of herbicides) are probably far more injurious to health, far less effective, and usually a lot more expensive. ▲

It is the ARC Quarterly editor's policy to publish summaries of reforestation decisions of appeals to the various Federal Courts and Agency Appeal Boards.

Anyone desiring copies of a complete decision should mail \$5 (\$10 non-members) for each decision requested to the ARC address. Please include with your request both the decision number and the name on the decision. Example: Manuel Galan, AGBCA No. 83-110-1. Allow two to three weeks for delivery.

(Donley continued)

It appears the decision was rendered basically on one criteria, "The contractor's duty to inquire". Donley Contractors didn't realize they had a duty to inquire and they were uncomfortable giving testimony on verbal conversations that became their word against the contracting officer's word, therefore they did not enter verbal conversations as evidence in the appeal. If that evidence had been introduced, would verbal inquiry have fulfilled the duty of the contractor or is it his duty to produce written inquiry when the terms of a contract are not adequately defined? Is it a contractor's duty to monitor the contracting officer's performance? That would certainly make it especially hard for contractors new to the business and if all contractors are not expected to monitor contracts sent out by the contracting officer it certainly discriminates against those who have the duty.

Carelessness of Contracting Officers to adequately perform their duties renders financial hardship on contractors and when they are upheld by the Board of

Contract Appeals by passing the responsibility on to the contractor to monitor the contracting officer's performance it fosters distrust and suspicion.

I would like to refer to some statements made by the C.O. through his attorney to the Board of Contract Appeals. He states "If contractor in fact noted the absence of Exhibit 1, and was confused thereby, he had no right to rely on a unsupported conclusion but was in fact on a duty of inquiry". He forgot to mention a telephone conversation referred to earlier in this article. He also states, "Contractor of his own volition accepted additional work under Bid Item 3, by Contract Modification No. 1, at the bid price of \$125.00 with full knowledge that 24" x 24" scalps were being required, thus indicating that the contract price was reasonable". Here again he fails to mention the date on contract modification No. 1 which was April 22, 1982. The dispute over scalp size didn't arise until May 31, 1982. How could we have had full knowledge that a 24" x 24" scalp was required?

In the letter that Donley Contractors received from the Board of Contract Appeals they state, "The contractor had just completed work on an adjoining Ranger District where hand scalping was required. This hand scalping was done with 24" x 24" scalps. The contractor had completed contracts in previous years on this forest where hand scalping was required at 24" x 24" spacing and he should have been fully aware of the size of scalps required". The adjoining district referred to was the Dubois Ranger District where the scalp size was described distinctly. It is unclear to me why specifications on the Dubois District should apply to the Island Park District.

The type of reasoning used by the C.O. and the Board of Contract Appeals makes me doubt their ability to make just decisions.

Douglas Donley